Reviews of National Policies for Education

Education in Colombia



OECD

Reviews of National Policies for Education

Education in Colombia



This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Please cite this publication as:
OECD (2016), *Education in Colombia*, Reviews of National Policies for Education, OECD Publishing, Paris.
http://dx.doi.org/10.1787/9789264250604-en

ISBN 978-92-64-25059-8 (print)
ISBN 978-92-64-25060-4 (PDF)

Series: Reviews of National Policies for Education
ISSN 1563-4914 (print)
ISSN 1990-0198 (online)

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.

Photo credits: Cover © eabff/Shutterstock.com

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

© OECD 2016

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to *rights@oecd.org*. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at *info@copyright.com* or the Centre français d'exploitation du droit de copie (CFC) at *contact@cfcopies.com*.

Foreword

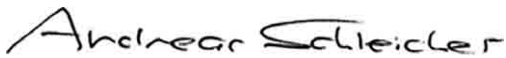
Colombia has made education a main priority to improve the economic and social prosperity of the country and pledged more resources to this sector than any other policy area. It has already made great leaps towards providing a quality and inclusive education. It has managed to lengthen the period of time Colombian children go to school, and to ensure more are entering the system at an earlier age and continuing to tertiary education, in particular amongst the most disadvantaged. Quality assurance mechanisms and efforts to improve the teaching profession have been introduced. These are remarkable achievements considering the socio-economic challenges and regional disparities Colombia faces. Sustaining this progress will be central to realising Colombia's ambitions to become the most educated country in Latin America.

This report has been developed as an input into the process of Colombia's accession to the OECD. It provides an assessment of Colombia's policies and practices compared to OECD best policies and practices in education and skills. 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 Colombia's education system as well as its challenges and provides recommendations for improvement.

I hope this report will support Colombia 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 there to help Colombia in this effort.



Andreas Schleicher

Director for Education and Skills and Special Advisor
on Education Policy to the Secretary-General
OECD

Acknowledgements

This report is the result of an assessment of Colombia's policies and practices in the field of education and skills, informed by international experience and best practices from OECD countries. The assessment process draws from various sources, including a background report prepared by the Colombian Ministry of Education, an OECD pre-review visit to help define the actors and main policy issues, and a main review visit by a team of OECD and international experts to Colombia in March 2015.

The OECD review team is indebted to the Colombian government which, under the leadership of the Ministry of Education, has graciously supported this review. Special words of appreciation are due to the Minister of Education, Gina Parody, and her team. Colombia's involvement in this report was co-ordinated by Paola Andrea Muñoz Gómez, Director of the Co-operation and International Relations Office and Victoria Gómez Castillo, Advisor to the Co-operation and International Affairs Office. We are also thankful for the support of Colombia's former Minister of Education, Maria Fernanda Campo, and her staff in beginning the OECD accession process in education and skills.

We would like to further thank the Inter-American Development Bank (IDB) consultants who authored the country background report: Alba Nury Martínez, Alexandra González, Luis Jaime Piñeros and Diana Isabel Cárdenas. The many contributions and clarifications from the staff of the Ministry of Education were also invaluable for our work. The OECD review team would also like to convey our sincere appreciation to the many participants in the review visit who gave time from their busy schedules to share their views, experience and knowledge. A wide range of actors at all levels of government and across all education levels provided a wealth of insights. We are very grateful to the many Colombian stakeholders, including the officials from the various ministries, national bodies and educational institutions, members of Congress, teachers unions, researchers, and officials from non-governmental organisations, private sector, and the country offices of the IDB, Organisation of Iberoamerican States for Education, Science and Culture (OEI), UNICEF and the World Bank. A special thanks to the

Secretaries of Education from Antioquia, Armenia de Mantequilla, Bogotá, Cundinamarca, Manizales, Medellín, and Riohacha. The courtesy and hospitality extended to us throughout our stay in Colombia made our task as enjoyable as it was stimulating and challenging.

The OECD review team (Annex A) was led by Elizabeth Fordham (OECD Secretariat) and co-ordinated by Anna Pons (OECD Secretariat), and composed of Jose Joaquin Brunner (University of Diego Portales, Chile), Candido Alberto Gomes (Catholic College of Brasilia, Brazil), Rowena Phair (OECD Secretariat) and Juliana Zapata (OECD Secretariat). Martha Laverde Toscano and Caroline Macready provided valuable contributions to the report. The review team acknowledges the support from Andreas Schleicher, Director for Education and Skills; Richard Yelland, Head of the Policy Advice and Implementation Division; and that of Etienne Albiser, Simon Field, Caitlyn Guthier, Ineke Litjens, and Paulo Santiago who provided in-depth feedback and advice at critical stages of the drafting process of the report. We are also grateful to other OECD colleagues in the Development Centre; the Directorate for Employment, Labour and Social Affairs; the Economics Department; the Governance Directorate; and the Legal Directorate. Rebekah Cameron provided administrative support, Sally Hinchcliffe edited the report, and Rachel Linden organised the publication process.

Table of contents

Acronyms and abbreviations 11

Executive summary 17

***Chapter 1.* Colombia and its education system** 21

The context 22
Colombia's education system 26
Main trends in access, quality and equity 30
Cross-cutting issues in Colombia's education system 38
Governing a complex, decentralised education system 39
Ensuring adequate and effective funding for education 47
Using information for system-wide improvement 56
Conclusion 60
Annex 1.A1. Key indicators 61
Annex 1.A2. Key governance actors by level 64
Annex 1.A3. Colombia's information system 66
References 71

***Chapter 2.* Early childhood education and care in Colombia** 79

Context and main features 81
Key policy issues 95
Policy issue 1: Improving the educational benefits of ECEC 96
Policy issue 2: Ensuring universal access and successful transition to school 104
Policy issue 3: Strengthening the whole system architecture for ECEC 110
Recommendations 117
Annex 2.A1. Key ECEC initiatives (1970-2014) 122
References 125

Chapter 3. **Primary and lower secondary education in Colombia** 131

Context and main features 132
Key policy issues 151
Policy issue 1: Placing student learning at the centre 152
Policy issue 2: Building a stronger teaching and school leadership workforce 159
Policy issue 3: Improving schools to provide all students with equal learning opportunities 172
Recommendations 184
References 190

Chapter 4. **Upper secondary education in Colombia** 195

Context and main features 196
Key policy issues 211
Policy issue 1: Improving quality and relevance 211
Policy issue 2: Making progress towards universal access and completion . 222
Policy issue 3: Building synergies for improvement 229
Recommendations 233
References 237

Chapter 5. **Tertiary education in Colombia** 243

Context and main features 246
Key policy issues 265
Policy issue 1: Expanding access and improving equity 265
Policy issue 2: Ensuring quality and relevance 276
Policy issue 3: Strengthening governance and financing 282
Recommendations 291
References 297

Annex A. **The authors** 301

Tables

Table 1.A1.1. Key indicators, by economy, society and educational inputs and outcomes 61
Table 1.A2.1. Key governance actors by level 64
Table 1.A3.1. Colombia's information system by education level 66
Table 2.1. Types of ECEC provision in Colombia 88
Table 2.A1.1. Key legislative ECEC initiatives (1970-2014) 122
Table 3.1. Number of school branches and students (2014) 137
Table 5.1. Tertiary education institutions, by type (2013) 254
Table 5.2. Institutions and programmes with VHQA, by type (December 2013) 256

Table 5.3. Enrolment by level (2013*) and change in rates (2010-13*) 259
Table 5.4. Enrolment, dropout rates, share of accredited programmes and poverty levels, by department (2013) 262
Table 5.5. Academic staff by level of education (2010 and 2013) 264
Table 5.6. Relative value of different certificates or degrees (2012 and 2013) . . 266

Figures

Figure 1.1. Population in Colombia based on the most recent census (2005) 23
Figure 1.2. Structure of Colombia's education system 27
Figure 1.3. School life expectancy across all educational levels (2000-11) . . . 31
Figure 1.4. PISA performance and annualised change across all subjects (2006, 2009 and 2012) 33
Figure 1.5. Share of resilient students across OECD and Latin American countries (2012) 35
Figure 1.6. Regional disparities across Colombia as indicated, by SABER 11 assessment (2013) 37
Figure 1.7. Colombia's governance structure across all educational levels . . . 41
Figure 1.8. Annual public expenditure on public institutions, per student in Colombia and selected countries (2011) 48
Figure 1.9. Spending per student age 6 to 15 and PISA mathematics performance (2012) 49
Figure 1.10. Distribution of funding, by source and by departments and selected ETCs 51
Figure 1.11. Relationship between SABER performance and per-student spending, by departments and selected ETCs (2014) 54
Figure 1.12. MEN's information system including databases and sources of education information 58
Figure 2.1. National actors in the governance of ECEC 83
Figure 2.2. Participation rates in ECEC, by socio-economic level (2012) 93
Figure 2.3. ECEC services and poverty rates, by department (2013) 94
Figure 2.4. Difference in mathematics performance, by attendance at pre-primary school (2012) 95
Figure 3.1. Share of 15-year-old students who repeated at least one year, PISA 2012 141
Figure 3.2. Performance in SABER 5 and 9, by type of school and location (2009, 2012 and 2013) 150
Figure 4.1. Upper secondary enrolment in Colombia (2002-12) 208
Figure 4.2. Survival rates of a cohort of Colombian students, by age and location 209
Figure 5.1. Tertiary education graduates (2002-13) 247
Figure 5.2. Public spending on tertiary education (2013) 250
Figure 5.3. Expenditure on tertiary education from public and private sources, percentage of GDP (2007-13) 251

Figure 5.4. Expenditure on tertiary educational institutions from public and private sources, percentage of GDP (2011) 252
Figure 5.5. Tertiary education gross enrolment rates, by country (2004-13) . . 258
Figure 5.6. Probability of entering tertiary education, by socio-economic quintile 261
Figure 5.7. Moving towards a two-pillar tertiary education system. 284

Boxes

Box 1.1. Setting priorities for the education system (2014-18) 38
Box 1.2. Transforming education through effective decentralisation. 43
Box 1.3. Supporting schooling through conditional cash transfers, *Más Familias en Acción* 55
Box 2.1. Supporting children From Zero to Forever. 82
Box 2.2. Introducing learning guidelines in Bogotá. 99
Box 2.3. Explaining the importance of ECEC to families 107
Box 2.4. Supporting transition to school through better child information 110
Box 2.5. Getting a good start in Medellín. 113
Box 3.1. The programme *Todos a Aprender*. 147
Box 3.2. Professional standards for teachers and school leaders in Chile 161
Box 3.3. Transforming school leaders to transform schools. 171
Box 3.4. *Escuela Nueva*, a Colombian innovation 173
Box 4.1. Modernising upper secondary education in Colombia. 198
Box 4.2. Lessons from the expansion of upper secondary education in Korea. 231
Box 4.3. Fostering the involvement of key stakeholders in Mexico 232
Box 5.1. Main findings of the 2012 OECD-World Bank review of tertiary education in Colombia. 245
Box 5.2. SABER PRO 256
Box 5.3. Antioquia: Tertiary education in regional development. 275
Box 5.4. The National Higher Education Council's long-term vision and strategy. 285

Acronyms and abbreviations

ANSPE	*Agencia para la Superación de la Pobreza Extrema* National Agency for Overcoming Extreme Poverty
ASCUN	*Asociación de Universidades Colombianas* Association of Colombian Universities
CAFAM	*Programa de Educación Continuada* Continuing Education Programme
CAP	*Certificado de Aptitud Profesional* Certification of Professional Aptitude
CAIP	*Centros de Atención Integral al Preescolar* Preschool Care Centres
CERES	*Centros Regionales de Educación Superior* Regional Centres of Higher Education
CESU	*Consejo Nacional de Educación Superior* National Council of Higher Education
CDIs	*Centros de Desarrollo Infantil* Child Development Centres
CIPI	*Comisión Intersectorial de Primera Infancia* Inter-sectoral Commission for the Comprehensive Care of Early Childhood
CNA	*Consejo Nacional de Acreditación* National Accreditation Council
COLCIENCIAS	*Departamento Administrativo de Ciencia, Tecnología e Innovación* Administrative Department of Science, Technology and Innovation
CONACES	*Comisión Nacional Intersectorial de Aseguramiento de la Calidad de la Educación Superior* National Inter-sectoral Commission for Higher Education Quality Assurance

CONPES	*Consejo Nacional de Política Económica y Social* National Council of Social and Economic Policy
COP	Colombian Peso
CREE	*Impuesto sobre la Renta para la Equidad* Income Tax for Equality
CUEE	*Comité Universidad- Empresa-Estado* University-Firm-State Committee
CUENTAME	*Sistema de Información para la Primera infancia* Early Childhood Information System (managed by the ICBF)
DANE	*Departamento Nacional de Estadística* National Department of Statistics
DHS	Demographic and Health Household Survey
DNP	*Departamento Nacional de Planeación* National Planning Department
DPS	*Departamento para la Prosperidad Social* Social Prosperity Department
DUE	*Directorio Único de Establecimientos Educativos* Unique Directory of Education Centres
EAU	*Escuela Activa Urbana* Active Urban School
ECEC	Early Childhood Education and Care
ECERS	Early Childhood Environment Rating Scale
EDI	Early Development Instrument
ENS	*Escuelas Normales Superiores* Higher Teaching Schools
ETC	*Entidades Territoriales Certificadas* Certified Territorial Entity
ECV	*Encuesta Nacional de Calidad de Vida* Survey on the Quality of Life
EWHD	*Educación para el Trabajo y el Desarrollo Humano* Education for Work and Human Development
EYFS	Early Years Foundation Stage (England, United Kingdom)
FAMI	*Familia, Mujer e Infancia* Family, Women and Childhood Programme

FDCRS	Family Day Care Ratings Scale
FDI	Foreign Direct Investment
FECODE	*Federación Colombiana de Educadores* Federal Teachers' Union of Colombia
FEM	*Fondo de Fomento de la Educación Media* Incentive to Upper Secondary Education Fund
FODESEP	*Fondo de Desarrollo de la Educación Superior* Fund for the Development of Higher Education
GEIH	*Gran Encuesta Integrada de Hogares* General Integrated Household Survey
GDP	Gross Domestic Product
HCB	*Hogares Comunitarios de Bienestar Familiar* Community Family Welfare Homes
ICBF	*Instituto Colombiano de Bienestar Familiar* Colombian Institute for Family Welfare
ICCS	*Estudio Internacional sobre Educación Cívica y Ciudadana* The International Civic and Citizenship Education Study
ICETEX	*Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior* Colombian Institute for Student Loans and Study Abroad
ICFES	*Instituto Colombiano para la Evaluación de la Educación* Colombian Institute for the Evaluation of Education
ICONTEC	*Instituto Colombiano de Normas Técnicas y de Certificación* National Standardization Agency
ISCE	*Índice Sintético de Calidad Educativa* Synthetic Education Quality Index
ISCED	International Standard Classification of Education
LAC	Latin American and Caribbean
MBE	*Marco para la Buena Enseñanza* Good Teaching Framework
MEN	*Ministerio de Educación Nacional* Ministry of National Education
MIDE	*Modelo de Indicadores del Desempeño de la Educación* Model Performance Indicators for Education

NEET	Not in Employment, Education or Training
NGO	Non-Governmental Organisation
NQF	*Marco Nacional de Cualificaciones* National Qualifications Framework
OCyT	*Observatorio Colombiano de Ciencia y Tecnología* Colombian Observatory of Science and Technology
OLE	*Observatorio Laboral para la Educación* Labour Observatory for Education
PAIPI	*Programa de Atención Integral a la Primera Infancia* Comprehensive Early Childhood Care Program
PEI	*Proyecto Educativo Institucional* Institutional Education Project
PISA	OECD Programme for International Student Assessment
PED	*Plan de Desarrollo para la Prestación del Servicio Educativo* Development Plan for Education Services
PND	*Plan Nacional de Desarrollo 2014-2018* National Development Plan 2014-2018
PNLE	*Plan Nacional de Lectura y Escritura "Leer es mi cuento"* National Reading and Writing Plan
PPP	Purchasing Power Parity
PTA	*Programa de Transformación Educativa "Todos a Aprender"* "Let's All Learn" Programme
RENE	*Registro Nacional de Educación* National Registry of Education
RRHH	*Sistema de Información de Gestión de Recursos Humanos* System of Human Resource Management
SABER	Colombia's National standardised tests
SACES	*Sistema de Aseguramiento de la Calidad de la Educación Superior* Tertiary Education Quality Assurance System
SAT	*Sistema de Aprendizaje Tutorial* Tutorial Learning System
SEI	*Sistema Institucional de Evaluación* Institutional Evaluation System
SENA	*Servicio Nacional de Aprendizaje* National Training Service

SGP	*Sistema General de Participaciones* General Participation System
SGCF	*Sistema de Información de Gestión y Control Financiero* System of Financial Control and Management
SIET	*Sistema de Información de la Educación para el Trabajo y el Desarrollo Humano* Education for Work and Human Development Information System
SIMAT	*Sistema Integrado de Matrícula* Enrolment Information System
SICIED	*Sistema Interactivo de Consulta de Infraestructura Educativa* Interactive Education Infrastructure System
SINEB	*Sistema de Información Nacional de Educación Básica y Media* National Primary and Secondary Information System
SIGCE	*Sistema de Gestión de la Calidad Educativa* System of Education Quality Management
SIPI	*Sistema de Información para la Primera Infancia* Early Childhood Information System (managed by MEN)
SISBEN	*Sistema de Identificación de Potenciales Beneficiarios de Programas Sociales* Identification System of Potential Beneficiaries of Welfare Programmes
SISNACES	*Sistema Nacional de Calidad de la Educación Superior* National Quality System for Tertiary Education
SNACT	*Sistema Nacional de Acumulación y Transferencia de Créditos* National System for Credit Accumulation and Transfer
SNET	*Sistema Nacional de Educación Terciaria* National System of Tertiary Education
SNIES	*Sistema Nacional de Información de la Educación Superior* National Tertiary Education Information System
SPADIES	*Sistema para la Prevención de la Deserción de la Educación Superior* System for the Prevention and Analysis of Dropout in Tertiary Education Institutions
SSNN	*Sistema de Seguimiento y Monitoreo Niño a Niño* Child to Child Monitoring System
STI	Science, Technology and Innovation

SUIN	*Sistema Único de Información de la Niñez* Unique System of Children's Information
T&T	Technical and Technological Education
TALIS	OECD Teaching and Learning International Survey
TE	Tertiary Education
TEIs	Tertiary Education Institutions
TERCE	*Tercer Estudio Regional Comparativo y Explicativo* Third Regional Comparative and Explanatory Study
TIMSS	Trends in Mathematics and Science Study
UNIDOS	*Red de Protección Social para la Superación de la Pobreza Extrema* Social Protection Network Alliance to Overcome Extreme Poverty
USE	Upper Secondary Education
VET	Vocational Education and Training
VHQA	Voluntary High Quality Accreditation

Executive summary

Over the past two decades the Colombian education system has undergone a fundamental transformation. Access to education has been a priority, with ambitious policies to expand enrolment at every level and bring education services to every corner of the country. In just a decade, school life expectancy has increased by two years and participation in early childhood education and care (ECEC) and tertiary education has more than doubled, to 40% and 50%, respectively. An increasing focus on learning outcomes has led to major reforms of the teaching profession and the establishment of a strong evaluation system. Improved governance and funding arrangements have laid the foundations for a system that is more efficient and meets the needs of a very diverse country. Nationwide consultations on education reform have forged a strong societal commitment to improvement. Together, these policies have brought the Colombian education system to a turning point on the eve of a post-conflict era.

Colombia now faces two critical challenges: to close the remaining participation gaps and raise the quality of its education for everyone. Inequities start at a young age; many disadvantaged children never go to school, do not start on time or attend lower quality institutions. The resulting differences in attainment are stark. School life expectancy for students from the poorest backgrounds is just 6 years, compared with 12 years for the richest, and just 9% enrol in tertiary education, compared with 53% from the wealthiest families. The low quality of education is a major factor behind this progressive disengagement. Inadequate learning support from the start leaves too many children without a strong foundation so that they struggle to make adequate progress, have to repeat years or drop out altogether. Among those who remain in the system at age 15, Colombian students perform well below their peers in OECD countries in the Programme of International Student Assessment (PISA) (376 points, compared to 494 in 2012). Just over half (51%) do not reach the minimum standard for full socio-economic participation in adult life. Tackling these challenges will be key if the country is to fully harness the talent of its young population.

This review has been undertaken as part of the process of Colombia's accession to the OECD. Its purpose is to evaluate Colombia's policies and practices as compared to OECD best policies and practices in the area of education. The review also looks at where Colombia is today and how far it has to go to reach its goal of being the "most educated" country in Latin America by 2025. This comparison brings to the fore the many strengths of Colombia's education system and highlights the areas where further progress is needed.

Improving the quality and relevance of learning outcomes

To improve its learning outcomes, Colombia first needs to set clear expectations of the values, knowledge and skills that students should acquire at every stage of the education cycle. The lack of a national curriculum framework for basic and upper secondary education makes it difficult for teachers, schools and students alike to direct their efforts towards higher standards. Defining clear learning expectations would also help strengthen education's contribution to meeting national social and economic goals. Raising the quality of teaching will be vital to improve student learning. Important steps have already been undertaken to ensure that entry into and promotion in the teaching profession are based on merit, and to strengthen the skills of the current workforce. A shared understanding of what it means to be a good teacher would reinforce these efforts, setting high expectations and guiding teacher education, remuneration and appraisal. More proactive efforts to share and scale up local innovations and good practice would help accelerate system-wide improvements.

Promoting equity in educational opportunities

A student's socio-economic background and location still have too great an impact on education access and achievement in Colombia. The expansion of flexible models such as the "New School", the abolition of school fees, and conditional cash transfers have helped to bring education to disadvantaged areas and make it affordable. To complete this progress in closing the large disparities in performance, Colombia will need to take stronger steps to ensure that all students have access to high-quality education. Participation in quality ECEC would give disadvantaged children a fairer chance of success in school. Major policies, such as the full-school day and the new school performance index (ISCE), need to be designed to encourage quality improvements in the most disadvantaged and poorly performing schools. Reforms of upper secondary and tertiary education should give high priority to reducing equity gaps between regions and socio-economic groups and expanding quality provision in rural areas. With meaningful educational

opportunities, disadvantaged students are more likely to stay engaged and make the most of their education.

Gathering and using data to guide improvements

Colombia has made impressive progress towards more evidence-driven policy making in education. Flagship initiatives are evaluated and the results inform further policy developments. The country has one of the strongest information systems in Latin America, and continues to invest in improving data collection and management systems. Multiple assessments, including Colombia's pioneering external assessment in tertiary education, enable the performance of students, staff, educational institutions and the system as whole to be compared. Now the priority should be to help teachers, educational institutions and local authorities to turn this wealth of information into improvements, by using it to inform policy and practice and build societal support for reform.

Using funding instruments to steer reform

Important reforms have been made to enhance the effectiveness of resource allocation and use in Colombia. The introduction of a per-student financing formula has helped to align funding with need, though further improvements are needed to ensure all schools receive the minimum resources required to provide quality learning opportunities. A range of results-based incentive schemes have encouraged local governments, schools and teachers to focus more attention on learning outcomes. To ensure that such measures raise standards for all children, it will be important to take greater account of differing local needs, context and capacity. In the case of tertiary education, a new funding system will be indispensable for the success of the country's ambitious reform plans. Within the education budget, allocating more resources to the initial educational cycles could improve outcomes, and reduce the inefficiencies that arise from grade repetition and students dropping out. Public education spending has been protected in the current economic slowdown. Meeting Colombia's ambitious long-term educational goals will require at least maintaining the current levels of public spending and mobilising additional resources.

Engaging stakeholders in designing and implementing policy

A major strength of Colombia is the number and variety of actors actively involved in education. However, more could be done to harness this plurality to enrich policies and widen the technical and financial resource

base for education. For instance, stronger efforts to connect schools, tertiary institutions and employers at the local level will be essential to ensuring that teaching and curricula foster the skills needed for employment and growth. Encouraging greater parental involvement in and support for education, particularly the non-compulsory years, would strengthen demand for change and help to sustain government reform efforts.

Chapter 1

Colombia and its education system

Colombia's transition towards peace and higher levels of development depends on many factors, but none will be more important to the country's future than its ability to build a strong education system. Colombia has many assets: a young population, rich natural resources and an open economy. To turn this potential into the foundation for strong and inclusive growth will require higher levels of learning and skills. This chapter looks at the socio-economic factors that will influence Colombia's transformation to a more educated country. It provides an overview of how the education system in Colombia is organised and analyses the major trends in access, quality and equity. The final section examines the structural factors within the education sector – governance, financing and use of information – and how they can be harnessed to support reform efforts.

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.

Colombia's transition towards peace and higher levels of development depends on many factors, but none will be more important to the country's future than its ability to build a strong education system. Colombia has many assets: a young population, rich natural resources and an open economy. To turn this potential into the foundation for strong and inclusive growth will require higher levels of learning and skills. This chapter looks at the socio-economic factors that will influence this transformation. It provides an overview of how the education system in Colombia is organised and analyses the major trends in access, quality and equity. Finally, it looks at structural factors within the education sector – in terms of governance, financing and use of information – and how they can be harnessed to support reform efforts.

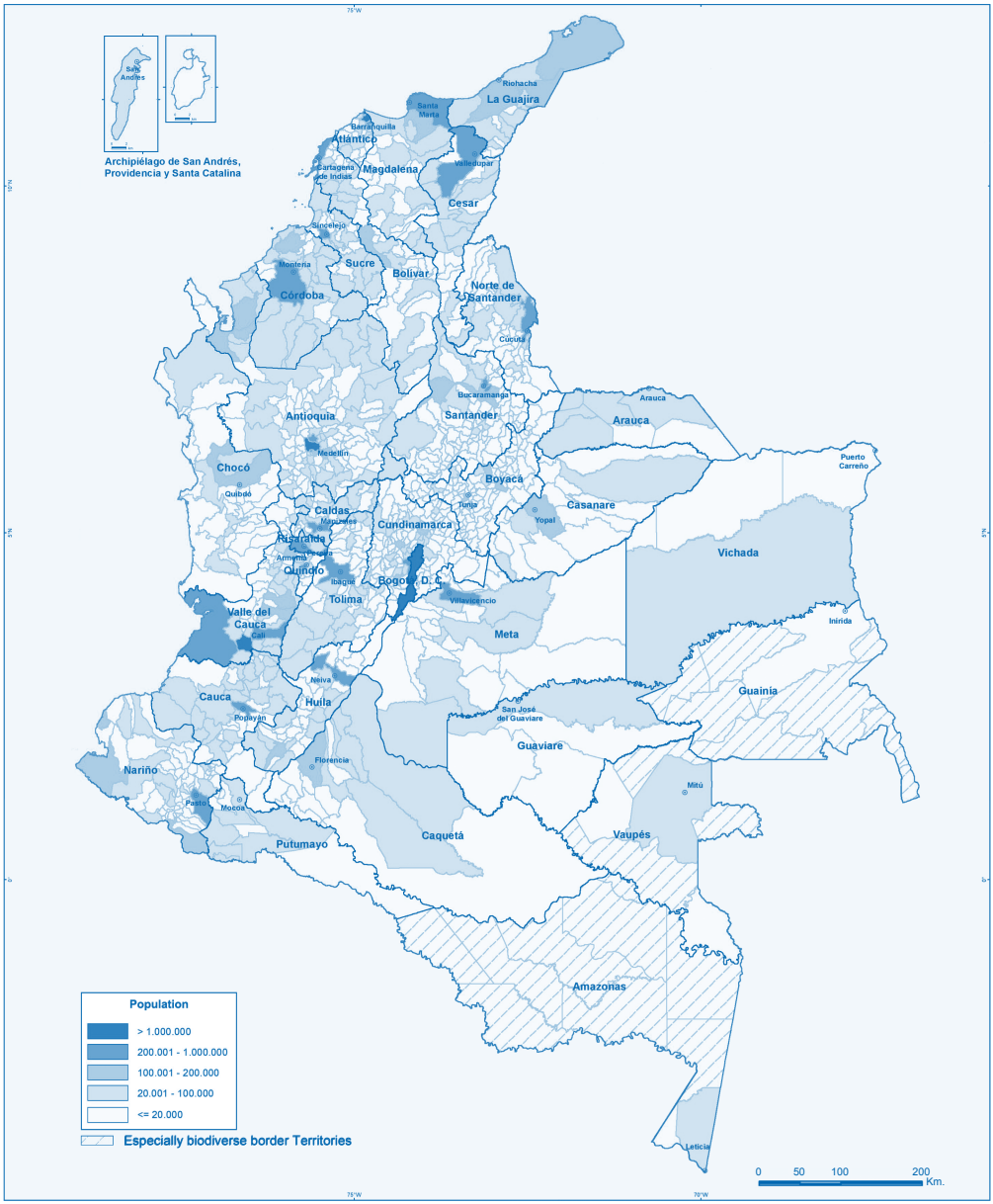
The context

Colombia is the fifth biggest country in Latin America and, with an estimated 47.6 million people, is second only to Brazil and Mexico in population. Its population is young and relatively diverse. More than a quarter of Colombians are under 15 and, while slowing, the population is still growing at a rate of 1.4%, more than double the OECD average (OECD, 2015a). Colombians are an ethnic mix of original native inhabitants, African, European and Middle Eastern. Afro-Colombians and indigenous people comprise the largest minority groups, representing 11% and 3% of the population, respectively (Hernandez and Pinilla, 2010).

The majority of Colombians (76%) live in urban areas, though rates of urbanisation vary significantly across the country (OECD, 2015a). Population and levels of development are concentrated in certain departments and municipalities (Figure 1.1). While four municipalities have more than 1 million inhabitants (Bogotá, Medellín, Cali and Barranquilla), some 746 of Colombia's 1 122 municipalities have less than 20 000 inhabitants. Located largely in the east of the country, these sparsely populated rural areas face particular challenges in terms of infrastructure, security, poverty and development.

Colombia's democratic republic is one of the longest lived and most stable democracies in Latin America. Colombia is headed by the president, vice-president and the council of ministers. The president and congress (102 senators and 122 representatives) are elected by popular vote to serve four-year terms. Colombia's 32 departments and the capital district of Bogotá have administrative and financial autonomy. Every department has a governor and assembly directly elected for four-year terms; some departments with large municipalities have special local administrative subdivisions. Each department is divided into municipalities with a mayor and a council.

Figure 1.1. **Population in Colombia based on the most recent census (2005)**



Source: DANE (n.d), "Distribución de la población total, según municipio 2005", *Geoportal,* Departamento Administrativo Nacional De Estadística (National Department of Statistics), http://geoportal.dane.gov.co/indicadores/servicioMax.html?s=Distribucion_Poblacion_1&c=PoblacionyDemografia&sc=Distribucion_Poblacion.

The central government sets the main priorities for all levels of government through a multi-year planning system driven by the National Development Plan 2014-2018: All for a New Country (*Plan Nacional de Desarrollo 2014-2018: Todos por un Nuevo País*, PND). The current PND defines three main priorities – peace, equity and education – and provides the guiding framework for departmental and municipal development plans.

Colombia has made efforts to strengthen its institutions and promote good governance, though significant challenges remain. Like other Latin American countries, Colombia has a small public sector, which constrains its capacity to deliver public services. In 2010, government employees made up less than 4% of the labour force, well below the OECD average (15%) and that of Latin American economies (11%) (OECD/IDB, 2014). It has established audit and control institutions along with performance-assessment tools and information systems to tackle corruption and improve the policy-making process. However, poor capacity and co-ordination across governance levels is a serious structural challenge which has contributed to deep regional and territorial inequities (OECD, 2013a, forthcoming). Corruption remains a serious issue, fuelled by inefficient government bureaucracy and a lack of transparency in information (Nieto Parra and Olivera, 2012; OECD, 2013a, 2015a; WEF, 2014). These challenges are also evident in the education sector.

An upper-middle income country, Colombia has witnessed robust economic growth in recent years, supported by strong macroeconomic management, improved security and an oil and mining boom. Between 2009 and 2013, Colombia enjoyed annual gross domestic product (GDP) growth of 4%, well above the OECD average of 1.3%, as well as that of other Latin American countries, including Brazil (1.0%) (World Bank, 2015). This growth has brought important social gains, including lower poverty rates and higher levels of employment. Cities and departments with strong local economies, strategic locations and safe climates have powered ahead. Bogotá and Antioquia, in particular, have achieved high levels of development, and today account for about 24% and 13% of national GDP, respectively. However, not all regions and social groups have participated equally in this growth. The recent economic slowdown and drop in global commodity prices have heightened the importance of diversifying the economy, raising worker productivity and moving towards higher value-added sectors.

Poverty and inequality remain major challenges for Colombia and are even more pronounced between regions. GDP per capita in Colombia is less than one-third of the OECD average – USD 10 303 at purchasing power parity (PPP), compared with USD 35 453 – and well below that of Mexico (USD 17 125) (OECD, 2014a). Around one in three Colombians live in poverty (33%), which is more than any other OECD country and considerably above the OECD average of 11% (OECD, 2015a, 2014c).

Overall inequality as measured by the Gini coefficient is very high (0.539) and comparable to countries such as Haiti, Honduras and South Africa (World Bank, 2015). Across regions in Colombia, poverty rates are much deeper in rural communities, reaching over 55% in la Guajira and over 62% in Cauca and Chocó (DNP, 2015). Income between regions can also vary greatly: the department with the highest income, the oil-producing Meta, has a GDP per capita ten times that of the poorest department, Vaupés. Health and nutritional indicators and access to basic services, such as potable water, also vary across departments. Inequities can be even more pronounced between municipalities within a department.

High levels of labour market informality hamper efforts to reduce poverty. While Colombia's overall employment rate (76%) is slightly above the OECD average (73%), almost 70% of the workforce is employed in the informal economy[1] (OECD, 2015b). As well as limiting individual access to social benefits, informality restricts the tax base and affects the capacity of the government to deliver public services such as education. It is particularly high in the agriculture and construction sectors, and among young people with low skills (OECD, 2015a; Peña, 2013). Vulnerable employment is more of a challenge for Colombia's youth than unemployment. While the unemployment rate in Colombia for those at the beginning of their career is similar to OECD countries (8% for those aged 15-29), this masks the fact that some 65% of young people (15-24 year-olds) work in the informal economy (OECD, 2015b; Peña, 2013). Improving skills and links to the formal labour market will be important to reducing informality, narrowing inequalities and strengthening growth and productivity.

Colombia's nearly five-decade long internal conflict has had a defining impact on all aspects of social and economic development in the country, including education. Departments along the coast and borders, such as Arauca, Chocó, Nariño, Norte de Santander and Putumayo, have been most affected. Levels of violence have decreased dramatically, yet Colombia's homicide rate of 31 per 100 000 people in 2012 is still far above the OECD average of 2.2 and higher than any OECD country (OECD, 2015a). A quarter of municipalities experienced high rates of violence in 2013, threatening the security of communities and social institutions including schools. Children, families and communities in areas of high violence and armed conflict face threats, death, forced recruitment into war and exclusion from the education and social system (UNICEF, 2012). Educational opportunities in conflict zones and for displaced people are limited and in some places non-existent. An estimated 5.7 million people, mostly indigenous or Afro-Colombian, have been displaced due to the conflict since 1985 (UNHCR, 2015; iDMC, 2013). In 2013, close to 110 000 students were recorded as being displaced, a number four times larger than in 2005 (MEN, 2015a). Ending the conflict is a key objective under Colombia's current PND, and its three overarching priorities

of peace, equity and education are seen as the interlocking drivers of strong and sustainable growth in the country.

Colombia's education system

Education in Colombia is a civic right and a government priority. According to the Constitution of 1991 and the General Law of 1994, all Colombians have the right to access education for their personal development and for the benefit of society. Compulsory education currently lasts 10 years, from the age of 5 to 15, which is equivalent to the OECD average (from age 6 to 16).[2] In an effort to expand access and raise skill levels, many countries, including other emerging economies like Mexico and Chile, have extended the period of compulsory education. Under the PND, Colombia also aims to extend compulsory education to the upper secondary level by 2030 (MEN, 2015a).

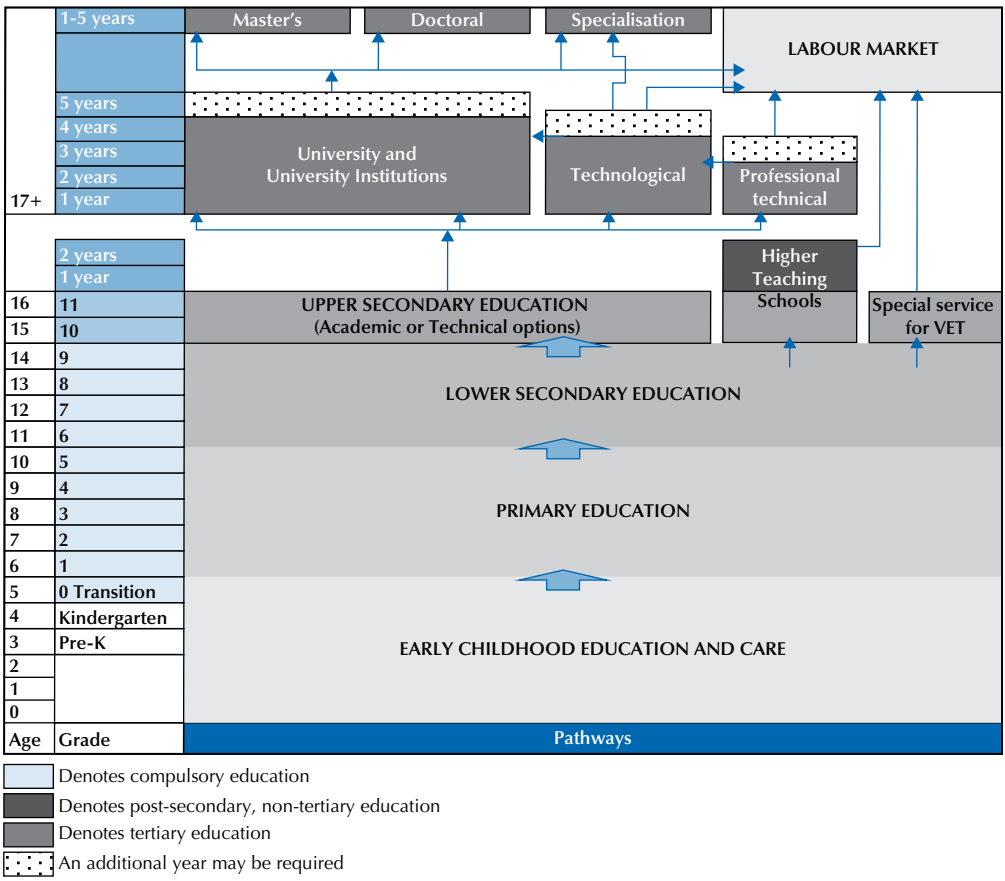
Colombia's education system is organised in four key stages (Figure 1.2). Post-secondary non-tertiary education and adult education are beyond the main scope of this review and will not be addressed in depth. Early childhood education and care (ECEC) includes services for children from birth until the age of six. Students theoretically enter the education system in the transition year (Grade 0 or age 5). Basic education lasts nine years (Grades 1-9 for 6-14 year-olds) and includes five years of primary education (*primaria)* and four years of lower secondary education (*secundaria).* Upper secondary education (*media*) lasts two years (Grades 10-11 for 15 and 16 year-olds), one year less than the OECD average of three years (UNESCO-UIS, 2015). The tertiary education system in Colombia is particularly complex, with a wide range of providers and multiple programmes of various lengths and levels. Students in Colombia are younger than their OECD peers when they enter tertiary education, and likely to have received fewer years of education.[3]

ECEC in Colombia reaches almost 2.9 million children and expectant or breastfeeding mothers through the various settings (MEN, 2015a). The From Zero to Forever strategy (*De Cero a Siempre)* introduced by the government in 2006, sets out Colombia's vision and priorities for ECEC for all children under six. It promotes a holistic, rights-based approach, which aims to address children's care and upbringing along with their health, nutrition, education, recreation and socialisation. The strategy defines the three ECEC delivery modalities, institutional, family and community, as follows:

- Community modality comprises community family nurseries for children aged two to five and represents the largest share (69%) of ECEC provision.
- Institutional modality provides centre-based care to children between the ages of two and six or until they enter the transition year and represents 7% of ECEC provision.

- Family modality provides support primarily in the home and targets pregnant women, breastfeeding mothers and children from birth to two years-old in rural areas. In some cases children as old as five can participate in the family modality, which represents 25% of ECEC provision.

Figure 1.2. **Structure of Colombia's education system**



ECEC services for 3-5 year-olds are also provided through the formal education system. Under the General Education Law (Law 115) of 1994 and the Decree 2247 of 1997, the school system is defined as encompassing three years of pre-primary education: pre-kindergarten (*pre-jardín*) and kindergarten (*jardín*) which enrolled 197 264 children in 2013, and the compulsory transitional year (*transición*), which enrolled 800 052 children in 2013 (MEN, 2015a). Despite efforts to expand pre-school enrolment, the

existence of multiple providers means that around 1 million 3-6 year-olds are reached through ECEC modalities and have not entered the formal education system (MEN, 2015a).

In 2014, approximately 7.5 million students were enrolled in basic education in Colombia, comprising primary education (Grades 1-5) and lower secondary education (Grades 6-9). Colombia's 50 991 school branches are organised in clusters (*instituciones educativas)*, some of which include pre-primary and upper secondary education (see Table 3.1 in Chapter 3). Most schools in Colombia operate an estimated 5-6 hour school day, although the government is making efforts to implement full-day schooling (*jornada única*, a minimum of 7 hours) in all schools as required under the General Law of Education of 1994. Upon completion of lower secondary education students receive a certificate (Certificate of Basic Education Studies, *Certificado de Estudios de Bachillerato Basico*), which is a prerequisite for enrolment in upper secondary education.

About 1.1 million youth are enrolled in upper secondary education in Colombia. More than three-quarters (76%) are enrolled in general academic programmes (*bachillerato academico*), and the remainder in programmes offering vocational education and training (VET) options (*bachillerato tecnico*) (MEN, 2015b; OECD, 2014a). Colombia also has 137 Higher Teaching Schools (*Escuelas Normales Superiores*, ENS), which train future pre-school and primary school teachers and provide 2 years of secondary-level education and 2 additional years of post-secondary education. Upon successful completion of upper secondary education, students obtain a certificate of completion (*bachiller*) and must pass a national exam (SABER 11) to enter tertiary education. Tertiary institutions have autonomy over their admission criteria and may introduce additional entry requirements.

In Colombia, there are approximately 288 tertiary education institutions, offering academic and vocational programmes across 4 main types of institutions:

- Universities represent 28% of all tertiary education institutions and offer academic undergraduate programmes and graduate programmes.
- University institutions represent 42% of all tertiary institutions and offer professional degree-level undergraduate programmes and "specialisation" programmes above bachelor's but below master's level.
- Technological institutions represent 18% of all tertiary institutions and provide technical programmes that offer higher-level knowledge and skills in the same subject area.
- Professional technical institutions represent 13% of all tertiary institutions and offer professional training programmes for a particular job or career (MEN, 2015a).

Other specific programmes and providers also offer tertiary education. The National Training Service (*Servicio Nacional de Aprendizaje*, SENA) provides the majority (58%) of technical and technological programmes at tertiary level, although it operates independently of the Ministry of National Education (*Ministerio de Educación Nacional*, MEN), (MEN, 2015a). In addition, Regional Centres of Higher Education (*Centros Regionales de Educación Superior*, CERES) were introduced in 2003 to expand access in under-served and remote regions. In 2013, there were 155 centres enrolling 36 168 students (see Chapter 5).

Colombia has a wide range of flexible and non-formal education models to serve disadvantaged groups and provide second-chance opportunities to the many young people and adults who did not attend school or dropped out before gaining basic skills. Flexible models, such as the New School (*Escuela Nueva*), account for about 16% of student enrolment in basic education. Schools with large indigenous populations can follow an ethnic education programme (*centro ethnoeducativo)*, which is developed in collaboration with the local community. The National Literacy and Basic Education for Youth and Adults programme (*Programa Nacional de Alfabetizacion y Educacion Basica para Jovenes y Adultos)* targets the 2 million adults in Colombia (about 6% of individuals over 15) who lack basic literacy and enables those who did not earn a basic education certificate to gain formal recognition of their skills (World Bank, 2015). In addition, 3 514 institutions run by SENA and other public and private providers offer short-duration VET programmes (known in Colombia as education for work and human development, EWHD) to develop, update and recognise individuals' knowledge and skills. Such SENA programmes provide students a certificate of attendance upon completion, or a certificate of academic knowledge if the programme is more than 160 hours. Individuals in upper secondary and tertiary education can gain labour market experience through apprenticeship contracts and internships, although such opportunities are quite limited. Recent legislation (Conpes 173 of 2014) seeks to better align workplace programmes managed by the Ministry of Labour and the MEN through common standards, and to improve the transition to the labour market (DNP, 2014).

Colombia's education system has slightly more students enrolled in private educational institutions than the OECD average. Private institutions enrol 19% of primary and lower secondary students (OECD average of 10% and 14%, respectively) and 23% of upper secondary ones (OECD average of 19%). Enrolment in private education is particularly high at tertiary level: 47% compared with the OECD average of 30% (OECD, 2014a). National statistics indicate that Colombia had 9 559 private primary and secondary school branches and 51 948 public ones in 2014 (see Table 3.1 in Chapter 3). In a country with high poverty rates, the extent of private provision has important implications for educational equity.

Main trends in access, quality and equity

Increased access and participation

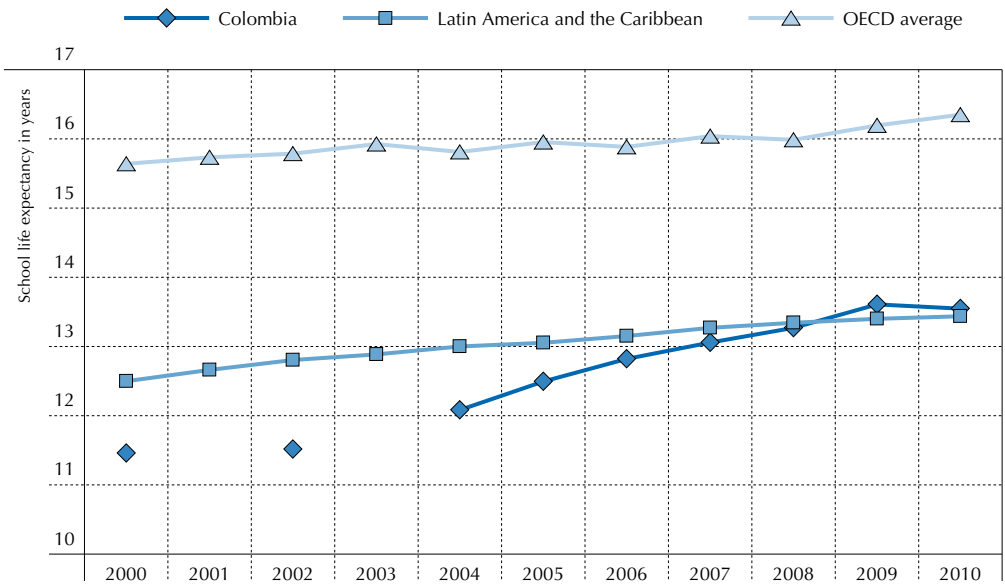
Recent education policies have led to a significant expansion of education participation in Colombia, in particular at those levels where enrolment had been lagging. Between 2000 and 2012/13, the share of children enrolled in pre-primary education (i.e. programmes for children below the age of entry into primary education, but with an educational component) increased from 36% to 45%, which remains below the OECD average (84%) but higher than Turkey (28%) (UNESCO-UIS, 2015). A series of measures, from the provision of free public schooling to major investments in infrastructure and education resources, have enabled a dramatic increase in secondary education coverage. Between 2002 and 2012/13, net enrolment rates rose from 59% to 70% in lower secondary and from 30% to 41% in upper secondary (UNESCO-UIS, 2015). Enrolment in tertiary education has also surged, with the gross enrolment rate doubling from 24% to 48% between 2000 and 2013. The OECD average increased from 52% to 72% during the same period (UNESCO-UIS, 2015; see Annex 1.A1).

Colombia has increased school life expectancy by 2 years in the past decade (from 11.4 years in 2001 to 13.5 years in 2010), whereas OECD countries and Latin American countries extended school life expectancy by 1 year on average, to 16.5 years and 13.4 years, respectively (Figure 1.3). Despite this increase, only children aged 7-13 years are close to enjoying universal access to education (defined as enrolment rates above 90%), whereas the majority of OECD countries ensure universal or high enrolment for all 5-14 year-olds (OECD, 2014a).

Several factors contribute to low attendance rates in Colombia, including poor transitions between levels, high dropout rates and a significant number of children never entering the education system at all. Although the dropout rate from pre-school to secondary education has more than halved between 2002 and 2013, the share of out-of-school primary-aged children has actually increased, from 4% in 2000 to 9% in 2010. About one in five students in Colombia do not continue past primary school (OECD/CAF/ECLAC, 2014). The share of lower secondary-aged youth out of school has declined, from 15% in 2005 to 9% in 2013, and is now below that in Mexico (13%) (UNESCO-UIS, 2015). However, lower secondary education remains the weakest link in Colombia's education system, with an annual dropout rate of 4.5%, higher than in primary (3.2%) or upper secondary education (3.1%) (MEN, 2015a; UNICEF, 2012). Only 30% of youth make the transition from school to tertiary education and of these many will drop out before completion; annual dropout rates for tertiary programme range from 10.4% at the university level to 22.2% in technical and technological institutions (DNP, 2015; MEN, 2015a). Persistent dropout rates and weak transitions mean Colombia has one of the highest shares of 15-19 year-olds

who are not in education – some 36% in total, which is more than double the OECD average (13%) and similar to the situation in Mexico (35%) (OECD, 2015b). Moreover, 19% of 15-19 year-olds are not in education, employment or training (NEET) compared with the OECD average of 7% (OECD, 2015b). Many obstacles limit young people's access to education, including a lack of educational opportunities, poverty, pressure to work, conflict and violence. Supporting students at all levels, in particular during transition from primary through to the end of lower secondary education, will be fundamental to ensuring students acquire the minimum level of knowledge and skills required for social and economic participation (OECD, 2011).

Figure 1.3. **School life expectancy across all educational levels (2000-11)**



Note: Missing links suggest data for that particular year were not available.

Source: UNESCO-UIS (2015), "Browse by theme: Education", *Data Centre,* UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx.

Colombian students' access to and participation in education are also hampered by late entry to school and high levels of grade repetition, which can affect academic achievement and increase the risk of dropping out (OECD, 2013b; Garcia Villegas et al., 2013; Barrera, 2014). Many Colombian students are not enrolled in an age-appropriate grade. While the gross enrolment rate[4] among 5-year-olds in Colombia is 89%, only 57% are in the appropriate grade (the transition year), which is almost 20 percentage points below the OECD average. In primary education, 84% of students are enrolled in the age-appropriate grade, against a gross enrolment rate of 107%, which is the largest gap among OECD

countries. The grade repetition rate in Colombia is also one of the highest among countries participating in the OECD Programme for International Student Assessment (PISA): in 2012, 41% of 15-year-olds had repeated at least one grade, compared with the OECD average of 12% (OECD, 2013b). The high rate of grade repetition is a major factor behind the large share of over-age students. Grade repetition has steep costs, is ineffective at addressing low performance and can increase the risk of dropping out, with older students facing higher opportunity costs of remaining in education (OECD, 2012a).

Evidence suggests that inadequate educational infrastructure and materials hinder access and achievement. This is a problem at every level of the system. While there does not appear to be an overall shortage of teachers in basic education, there are gaps in the teacher workforce at the pre-school and upper secondary levels, and across the system the level of teachers' qualifications is a concern. Improving both school infrastructure and teaching quality are important government priorities.

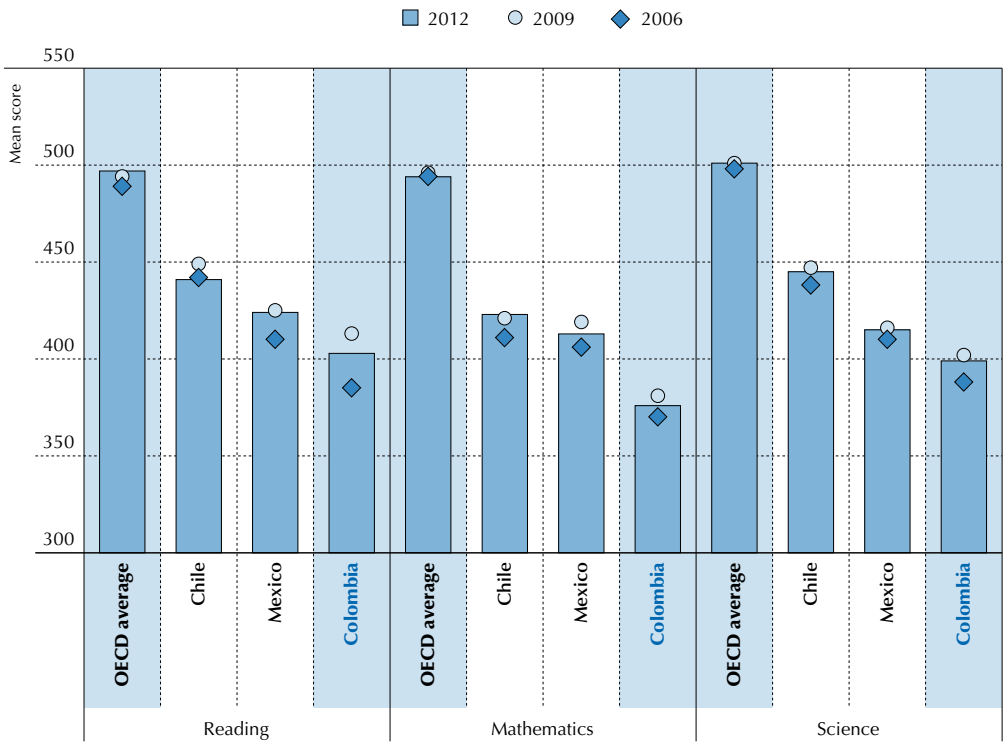
Low learning outcomes

Quality is improving, but the majority of students leave school with weak basic skills. PISA assesses what students aged 15 around the world know and are able to do with what they know. Colombia has participated in PISA since 2006. Results suggest that student reading skills have improved across assessment cycles, but remain low compared with the OECD average and other Latin American countries (Figure 1.4). Performance in mathematics and science has remained unchanged. In mathematics, 15-year-old Colombian students are, on average, more than 3 years (118 score points) behind their peers in OECD countries (OECD, 2014b). The Third Regional Comparative and Explanatory Study (*Tercer Estudio Regional Comparativo y Explicativo*, TERCE), which assesses the mathematics, science and writing skills of Latin American students in Grades 3 and 6,[5] shows how Colombian students start to fall behind neighbouring countries such as Chile, Costa Rica and Mexico in the earlier years of education (UNESCO Office of Santiago, 2015). National SABER assessments in Grade 9 (theoretically at age 14) and Grade 11 (at age 16) also indicate low overall standards, with negative trends in reading and mathematics scores in some grades and years.

Colombia has made progress in raising the achievement of students at the bottom of the performance scale although its share of low performers remains one of the highest among OECD countries. Students with the lowest reading performance (bottom 10th percentile) improved their PISA scores by more than 50 points to 295 points between 2006 and 2012, which amounts to slightly more than a school year, but the share of low performers did not significantly decrease across PISA cycles. In PISA 2006, 56% of 15-year-old Colombian students performed below proficiency level 2, compared with

an OECD average of 21%. In PISA 2012, the share remained statistically unchanged at 51.4%, far above the OECD average of 18% (OECD, 2014b). National 2014 SABER literacy assessments found 49% of students in Grade 3, 67% in Grade 5 and 73% in Grade 9 did not meet minimum standards. A significant proportion of Colombian students are not well prepared for entry to tertiary education or the labour market; 27% of individuals who took the SABER 11 national assessment in 2013 performed at the low or inferior level, with important implications for tertiary retention and success (DNP, 2015).

Figure 1.4. **PISA performance and annualised change across all subjects (2006, 2009 and 2012)**



Note: Non-OECD countries are shown in blue.

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

Attainment rates and labour market outcomes indicate whether an education system is able to develop individuals who can support their country's social and economic development. Colombia has greatly improved

upper secondary attainment rates across generations; 40% of 25-34 year-olds have obtained an upper secondary education or post-secondary non-tertiary education, more than double the rate among 55-64 year-olds (16%) (OECD, 2015b). Household survey data suggest that students who progress beyond lower secondary school have better wages and a greater chance of employment in the formal economy than those who do not attain an upper secondary education (CEDLAS/World Bank, 2014). The labour-market returns on a tertiary education are significant, and have remained constant despite the rising number of graduates (see Chapter 5). Labour market rewards for education are limited, however, by the size of the informal economy and the weak skills of many graduates. The difference in employment rates among 25-34 year-olds in Colombia with a below upper secondary education (73%) and those with an upper secondary or post-secondary non-tertiary education (76%) is small; the OECD average difference is 18 percentage points (OECD, 2015b). Breaking this cycle of poor education quality and limited labour market returns will require co-ordinated efforts to stimulate the supply, demand and use of skills in the workforce.

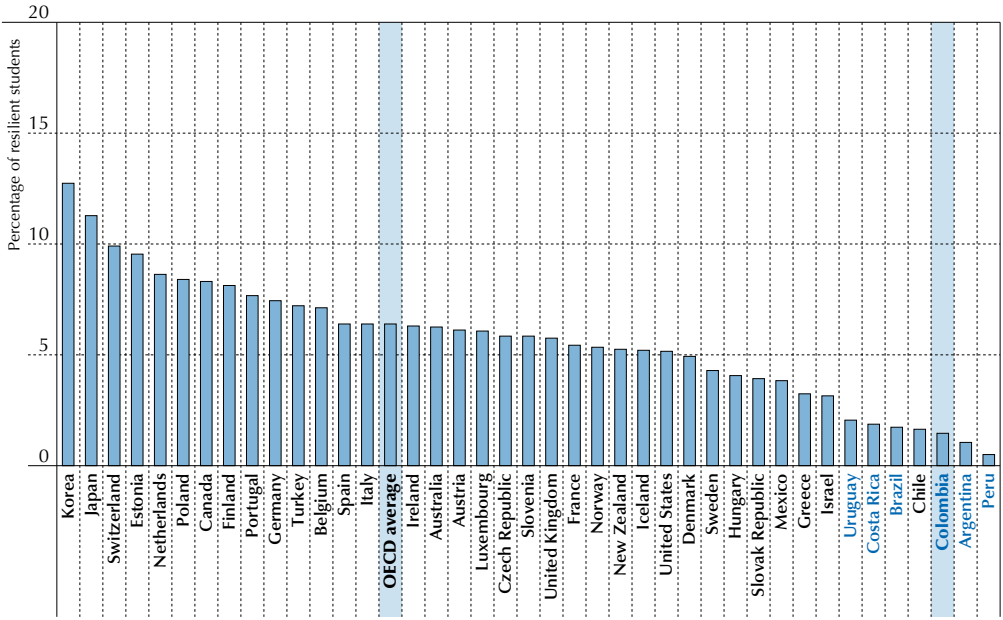
Inequities in access and learning

Colombia has implemented a range of initiatives to tackle disparities in education access and learning. ECEC policies have aimed to increase school participation and performance among poor and vulnerable students. From 2012, education has been free from the transition grade to the end of upper secondary education, though indirect costs such as transport and learning materials remain. Early student selection into different pathways, such as academic or pre-vocational, can hamper equity efforts, but Colombia provides comprehensive education until the end of lower secondary education at age 15 and upper secondary certification, whether academic or technical, enables entry to tertiary education. Funding policies, such as conditional cash transfers and tertiary loans, have also improved equity. As well as targeting children from poor socio-economic backgrounds, the government has introduced tailored measures to meet the needs of other vulnerable groups, such as ethnic communities, children with special educational needs, individuals affected by violence and rural populations. Flexible school models, ethnic education, school meals and school transport have all helped to reach disadvantaged groups. However, socio-economic background, geographic location, ethnicity and gender still heavily determine the educational opportunities of Colombian children.

Social inequality has contributed to deep disparities in access to education and achievement in Colombia. According to Colombia's Demographic and Health Household Survey 2009-10, a student from the poorest socio-economic level (strata level 1)[6] has a school life expectancy of 6 years, which is half that for an individual from the wealthiest socio-economic level (strata level 6), and is much more likely to be out of school (Garcia Villegas et al., 2013;

UNESCO-UIS, 2015). National and international assessments indicate that socio-economic background is a strong determinant of student performance in Colombia (Barrera, 2014; Garcia Villegas et al., 2013). PISA 2012 results show that Colombia has one of the lowest percentage of resilient students compared to OECD and Latin American countries, meaning that few disadvantaged children overcome their background to achieve high results (OECD, 2013c and Figure 1.5). Just 9% of disadvantaged 17-21 year-olds are enrolled in tertiary education compared with 62% of advantaged ones (ECV, 2012 in DNP, 2015). An assessment of SABER results indicates that socio-economic background and parents' educational level has a determinant effect on student achievement in Colombia (Barrera, 2014; Garcia Villegas et al., 2013; ICFES, 2012).

Figure 1.5. **Share of resilient students across OECD and Latin American countries (2012)**



Notes: A student is classified as resilient if he or she is in the bottom 25% of the PISA index of economic, social and cultural status (ESCS) in the country of assessment and performs in the top 25% of students among all countries, after accounting for socio-economic status. Non-OECD countries are shown in blue.

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

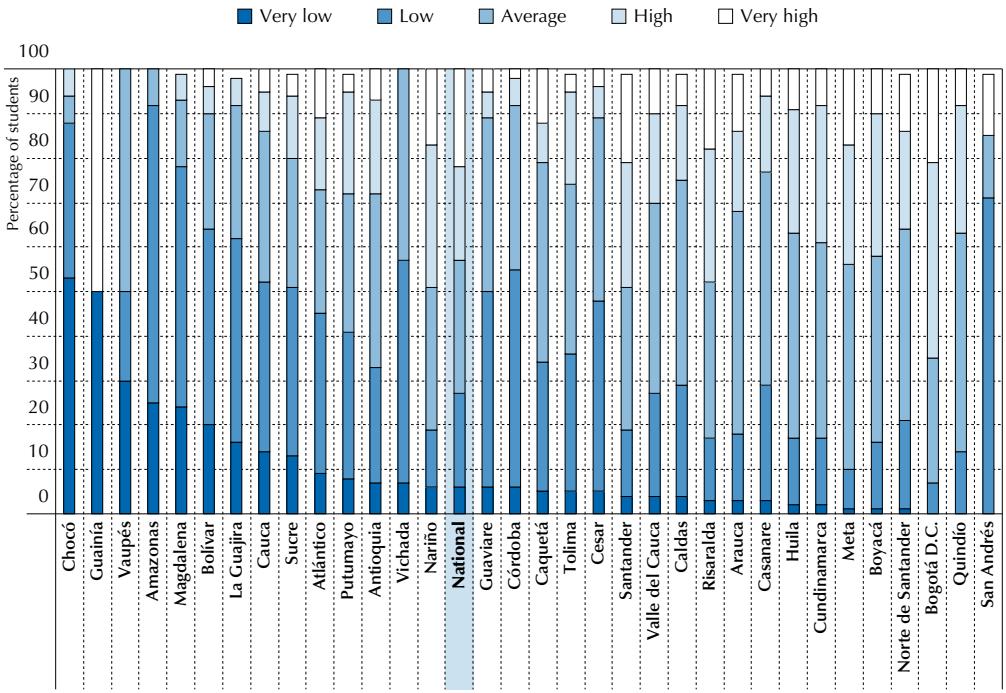
Socio-economic inequality in Colombia is also evident in the differences between education institutions. Evidence from Bernal (2014) indicates that 61% of children from advantaged families (in the top quintile) attend private

early childhood education (*preescolar jardin*) compared with 2% from disadvantaged families. Families from higher socio-economic levels tend to have higher participation rates in early childhood education for three to five year-olds (Bernal, 2014). Disadvantaged students also tend to attend disadvantaged schools, which often lack human and financial resources (OECD, 2011). Evidence from an analysis of SABER assessments indicates that the socio-economic level of schools explains a significant portion of the difference in achievement, suggesting a high rate of segregation between schools based on the socio-economic level of students (Duarte et al., 2012; Barrera, 2014). PISA 2012 results also indicate that, after taking the socio-economic context of the schools into account, there was no significant performance difference between students attending public or private schools, suggesting the socio-economic context in which a school is located can negatively impact student performance (OECD, 2013b).

Individuals in rural areas tend to have less access to educational opportunities and lower academic achievement than their peers in urban areas (Figure 1.6). Colombians living in rural areas suffer from multiple disadvantages, including higher rates of poverty (43% compared with 27% in urban zones), malnutrition, teenage pregnancy and violence, as well as insufficient infrastructure (CIPI, 2013). A majority of indigenous people and Afro-Colombians live in rural areas, and face additional barriers to education (Barrera, 2014). Participation in education is on average lower in rural departments and municipalities than more urbanised areas, in particular at the ECEC and upper secondary levels (MEN, 2015a; DNP, 2015; Garcia Villegas et al., 2013; Bernal, 2014; OAS, 2010). In 2013, the average number of years of schooling among rural populations aged 15 and older was just 5.47 years compared with 9.36 years in urban areas (MEN, 2015a). At the tertiary level, several rural departments (Amazonas, Arauca, Guainía, Guaviare, Huila, Putumayo, San Andrea, Vichada and Vaupés) had gross enrolment rates below 20%, while the more urbanised departments of Quindío and Santander had rates close to 60% (MEN, 2015a).

In Colombia, students with special educational needs have lower participation rates, though quality data are lacking (MEN, 2012). In 2014, 119 060 students diagnosed with special educational needs were enrolled in basic education according to MEN data. Yet data from the 2005 census indicated that there were 426 425 children (0-17 year-olds) with some form of disability in Colombia, which suggests that many are not participating in education and that data gathering should be improved to ensure these students are identified and supported (MEN, 2012). Guidelines have been developed to better support children and young people with special needs and the MEN allocates additional funding to educational institutions to co-finance the cost of providing education services to disabled or exceptionally gifted students (MEN, 2015a). Improved data would help make these policies more effective.

Figure 1.6. **Regional disparities across Colombia as indicated, by SABER 11 assessment (2013)**



Source: DNP (2015), *Bases Plan Nacional de Desarrollo 2015-2018*, Departamento Nacional de Planeación (National Planning Department), Bogotá, https://www.dnp.gov.co/Plan-Nacional-de-Desarrollo/Paginas/Que-es-el-Plan-Nacional-de-Desarrollo.aspx, Graph IV-2, page 62.

Males tend to outperform females in Colombia on a number of indicators, and these disparities are deeper than in most OECD countries. Boys significantly outperformed girls in PISA 2012 mathematics and science assessments by one of the largest differences among OECD countries: 25 points for mathematics and 18 points for science compared with the OECD averages of 11 points and 1 point, respectively. The large difference may in part be explained by the fact that by the age of 15, poorly performing boys are more likely to have dropped out of school than girls. On the reading assessment, girls outperformed boys by 19 points, whereas in OECD countries the average gap was twice as much, at 38 points (OECD, 2014b). Tertiary attainment rates among 25-34 year-old women were 29%, outperforming men at 23%, but both were below the OECD average of 46% and 35%, respectively. However, 25-34 year-old Colombian women face far higher levels of unemployment (13%) than the OECD average (8%) and Colombian men in the same age group (8%, OECD average of 7%) (OECD, 2015b). Young women (15-29 year-olds) are also more likely to be excluded from education, employment and training

than their counterparts in other OECD countries (31% compared with the OECD average of 18%) (OECD, 2015b). Improving gender equality in education and the labour market need to go hand-in-hand if Colombia is to widen its talent pool and achieve more inclusive growth.

Cross-cutting issues in Colombia's education system

Education is one of the three key pillars of the National Development Plan 2014-2018. Focusing on improving student performance and narrowing equity gaps, the PND sets out clear priorities for each education level (Box 1.1) and establishes the overarching ambition for Colombia to be the most educated country in Latin America by 2025 (DNP, 2015). Among its flagship policies are the rolling out of full-day schooling, a drive for teacher excellence and the restructuring of the tertiary education system. The following chapters will analyse these policy priorities in more depth. This section focuses on three system-level factors that will be instrumental to meeting Colombia's education objectives: 1) governing a complex, decentralised education system; 2) ensuring adequate and effective funding for education; and 3) using information for system-wide improvement.

Box 1.1. **Setting priorities for the education system (2014-18)**

Colombia's National Development Plan 2014-2018: All for a New Country (*Plan Nacional de Desarrollo 2014-2018: Todos por un Nuevo País*, PND) sets the goal for the new presidential term and the government. Education is one of three key pillars of economic and social development, alongside peace and equity. The PND sets various objectives and strategies to improve the access, quality and relevance of education at all levels, with the overarching vision of transforming Colombia to become "the most educated" country in Latin America by 2025. Key objectives include:

- Strengthening early childhood education and care (ECEC) by ensuring the legal sustainability of the current From Zero to Forever strategy (*De Cero a Siempre*), improving the quality of staff and the monitoring system, and extending the conditional cash transfer programme, More Families in Action (*Más Familias en Acción*).
- Improving the quality of primary and secondary education by targeting the different components of teacher excellence such as with the "Let's All Learn" (*Todos a Aprender*, 2012) programme, increasing the implementation of full-day schooling (*jornada única*) and reforming the General Participation System (*Sistema General de Participaciones*, SGP) to improve the equity and efficiency of the allocation of resources.
- Increasing access and participation in education through the redesign of upper secondary education, the improvement of education in rural areas, and the implementation of a school meals programme.

Box 1.1. **Setting priorities for the education system (2014-18)** (*Continued*)

- Developing access and quality in tertiary education, as well as its relevance, through a range of strategies including the creation of a national qualifications system, a system of credit accumulation and transferability, and improvement of the tertiary teaching workforce.
- Decreasing the illiteracy rate, targeting the system of indigenous education, improving the bilingual education system and strengthening support for top-performing students.

The PND includes indicators to monitor, evaluate and assess the key objectives set. Most objectives have a number of indicators to measure progress. Based on these objectives, the MEN will develop its 10-year education strategy with actionable targets for local secretaries of education.

Source: DNP (2015), *Bases Plan Nacional de Desarrollo 2015-2018*, Departamento Nacional de Planeación (National Planning Department), Bogotá.

Governing a complex, decentralised education system

Governance refers to the structures, institutions and dynamics through which policy is defined and implemented. Education governance is particularly complex in Colombia, both because of the wide range of institutions involved, and because of the variegated way in which decentralisation has taken place across the sector. Responsibility for the education system is shared between the Ministry of Education (MEN) and Certified Territorial Entities (*Entidades Territoriales Certificadas,* ETCs – see below), although other institutions play an important role in education delivery, creating challenges in terms of policy coherence and accountability. In some of Colombia's regions, decentralisation has created opportunities for innovation and leadership, and enabled greater responsiveness to local needs. However, not all parts of the country have benefited equally. Poorer departments and municipalities often lack the guidance, capacity and support to deliver education effectively. The central government still plays a strong role in setting policy objectives for the sector, but lacks adequate mechanisms to steer regional bodies and ensure accountability for results. While decentralisation may have facilitated the expansion of enrolment, the lack of common standards poses challenges to improving education quality (Melo, 2005). These disconnects and misalignments pose significant challenges to education reform in the country. While there is no single right way to govern education systems, evidence indicates that governance arrangements are most effective when they are coherent and well aligned, and when adequate supports and accountability systems are in place to ensure that different levels and actors work together towards the same objectives (OECD, 2015c).

Ensuring institutional coherence and clear leadership

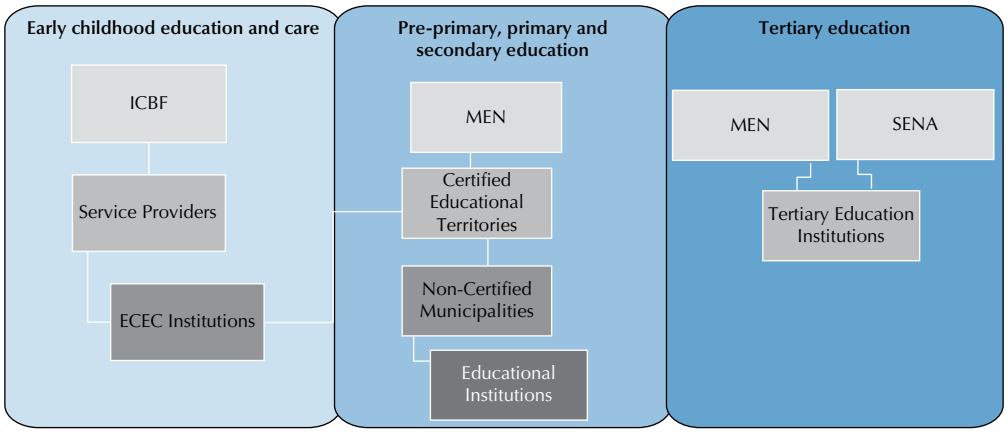
The MEN is the main body responsible for education in Colombia and its mandate covers the whole sector, from pre-school to tertiary education. According to Decree 5012 of 2009, the MEN sets national policy and criteria, defines standards, guarantees and ensures the right to access education, formulates directives, supports the territories, and inspects and evaluates the quality of the education system. The MEN has two vice ministries: one responsible for pre-primary/ECEC, basic (primary and lower secondary education) and upper secondary education; and the other responsible for tertiary education. Within each vice ministry, departments responsible for each educational level direct and plan education policy.

Many other bodies also help shape education policy in Colombia, including the presidency's office, other ministries, various multi-sectorial commissions, and multiple agencies, institutes and councils (Annex 1.A2). While such institutional complexity is a common feature of education systems in all countries (OECD, 2015c; Cerna, 2014a), what stands out in Colombia is the extent to which these other bodies play a decisive and largely autonomous role at some education levels (Figure 1.7). Although the MEN defines national policy on ECEC, the main implementing agency is the Colombian Institute for Family Welfare (*Instituto Colombiano de Bienestar Familiar,* ICBF), the national body responsible for children under five. The ICBF is largely responsible for regulating its own institutions and co-ordination with the ministry and local secretaries of education is limited. At the tertiary level, the MEN is responsible for setting national policies, and for the promotion, supervision and inspection of public and private tertiary education institutions (TEIs). However, the 1991 Constitution grants TEIs far-reaching autonomy and the MEN has few mechanisms to ensure its policies are implemented. Moreover, SENA, which operates under the Ministry of Labour, is responsible for offering and implementing VET, as well as non-formal education and training (known in Colombia as education for work and human development). SENA provides 70% of technical and technological education at the tertiary level and is playing a growing role in delivering education in upper secondary education as well. SENA manages its own funding and decides its own policy and regulation (Saavedra and Medina, 2012).

Such a breadth of engagement and level of autonomy can be a strength. Most countries have a range of institutions involved in ECEC and in VET, and there is little doubt that in Colombia the ICBF and SENA have expanded resources for education, enhanced delivery capacity and enabled services to better meet the distinct needs of different populations. There are also historical and political reasons for the independence of tertiary education institutions in Colombia, as in many other Latin American countries, which are important to understand. These strengths, and also the potential

challenges arising from them, will be discussed in more depth in subsequent chapters. What is important to note from a system-wide perspective is the extent to which leadership across the education sector is fragmented. In Colombia, the MEN has limited means of influencing reform outside of basic education. This makes it difficult to effect systemic improvement and create consistent pathways for learning from early childhood to the tertiary level. It creates gaps in accountability and in data collection and monitoring. The existence of different institutions with separate funds and budgets also creates inefficiencies and makes it more difficult to pool capacity and resources and avoid duplication. Complexities at the central government level can be magnified at the local government and school level, where the capacity to co-ordinate multiple actors is often very weak (OECD, 2013a).

Figure 1.7. **Colombia's governance structure across all educational levels**



Note: See Annex 1.A2 for further details on governance actors.

Source: Updated from Piñeros, L., B. Caro Acero and L. Villa Arcila (2013), "Diagnostico de los sistemas de información de la educación inicial, básica, media y superior", ESOCEC, July 2013.

The educational reforms to which Colombia has committed itself will require clear leadership and strong co-ordination across the sector. The current lack of clarity in the roles and responsibilities of important institutions involved in education delivery will make this difficult.

Ensuring effective decentralisation

There is a growing trend towards education decentralisation in OECD countries. International experience suggests that the process of decentralisation can improve local responsiveness, encourage creativity in the use of resources, promote innovation and create incentives for quality improvement (Waslander, Pater and van der Weide, 2010 in OECD,

2012a). However, decentralised governance is only effective when adequate capacities, co-ordination measures and accountability mechanisms are in place (OECD, forthcoming). Without such conditions, decentralisation can deepen inequity and make quality improvement more difficult.

Colombia was one of the first countries in Latin American to begin decentralising its education system and is the most decentralised unitary country in the region. The process was rapid and far-reaching but remains incomplete. The 1991 Constitution and the 1994 General Education Act paved the way for the devolution of responsibilities to departments and municipalities, which include guaranteeing education services from pre-primary to secondary education, managing education personnel and educational funding, and supervising private institutions (Cortes, 2010). The General Education Act also gave schools considerable autonomy over curricula and assessment. The Law 715 of 2001 further clarified the responsibilities of each level of government and reformed the system of allocation for education resources to better align funding and the needs of the regional authorities.

Decentralisation has been managed by a process of certification, whereby all departments irrespective of their capacity, and any districts or municipalities that meet specific criteria, are granted the status of Certified Territorial Entities (*Entidades Territoriales Certificadas,* ETCs). Certification is determined by several factors including adequate physical and financial resources, a basic information system, and capacity to manage the teaching profession. As of 2015, there are 95 ETCs, each led by a Secretary of Education and guided by an education development plan (*Plan de Desarrollo para la Prestación del Servicio Educativo*, PED). ETCs are responsible for defining and implementing education policy, monitoring quality and the educational provision of all public and private schools, and supporting non-certified municipalities.

This system has allowed ETCs with the capacity and funding to innovate and improve performance (García Jaramillo et al., 2014). Decentralisation has been a positive factor in increasing enrolment rates, in particular in regions where local demand for education reform is strong (Faguet and Sánchez, 2008). Decentralisation has also enabled municipalities to use subsidised private education to expand the provision of education (Cortes, 2010). Several departments and territories, such as Bogotá, Medellín and Manizales, have benefited from increased autonomy to both expand access and raise standards (Box 1.2). However, the majority of ETCs, particularly those in rural areas, lack the human and financial capacity to effectively manage their school system and drive improvements.

The capacity of local certified governments in Colombia to carry out their functions varies greatly (World Bank, 2014; Garcia Jaramillo et al., 2014). The MEN has identified 48 ETCs as lacking capacity according to a range of indicators covering enrolment, quality and management (MEN, 2015c). Many

municipalities lack the human, financial or technical resources to ensure the quality of schools under their responsibility. In extreme cases, such as Chocó, the MEN has taken over ETCs that have been unable to govern effectively (Cortes, 2010; MEN, 2015c). Capacity is usually weakest in those regions where education needs are greatest, such as remote and isolated areas and those affected by the conflict, with the result that decentralisation has contributed to deepening inequalities. This was evident in the review visit where the team observed that larger urban municipalities had relatively sophisticated and promising strategies and partnerships, which were less evident in poorer areas.

Box 1.2. **Transforming education through effective decentralisation**

The Department of Antioquia is a region of Colombia located to the west of Bogotá. Its capital is Medellín, the second largest city in Colombia. Both Antioquia and Medellín have their own governance structure and operate their education system separately. Compared with other regions, Antioquia and Medellín have strong governance structures, large economies, public-private partnerships and high levels of human capital (DNP, 2015; Cortes, 2010). In 2012, enrolment rates for basic and upper secondary education were above the national average (MEN, 2015b). The 2014 SABER results indicate positive outcomes, with the percentage of low-performing students decreasing and the share of top-performing students increasing. However, as in other regions, academic participation and performance varies, particularly in parts of the region with high levels of marginalised communities.

Decentralisation has allowed ETCs' secretaries of education to implement initiatives which have served as examples for the national strategy. International evidence indicates that regions with capacity can experiment with policy and initiatives (Cerna, 2014b). For example, prior to the national initiative on public contracts for student placements in private schools, Antioquia had already implemented a strategy to subsidise private schooling for public school children in efforts to increase enrolment (Cortes, 2010). Medellín has also been able to drive successful policies and continue them despite political changes. For example, it introduced policies such as Good Start (*Buen Comienzo*) which served as an example for the national strategy, From Zero to Forever (*De Cero a Siempre*).

The MEN has made efforts to strengthen the capacity of the ETCs and their secretaries of education through a variety of support mechanisms. The Modernisation of the Secretaries of Education Project (*Proyecto de Modernización*) was introduced in 2004 to provide differentiated support to meet the specific management and contextual needs of the ETCs (MEN, 2015c). Under the project, technical support plans were developed to assist the weakest territories, and a team of advisors set up, including former secretaries of education, to provide guidance on implementation (MEN, 2015c). However, the project was discontinued in 2014 and a recent evaluation of flexible education models indicated only half of ETCs collaborated with the MEN on policy implementation, suggesting that relations between central and local government remain insufficient (Econometría/SEI, 2014).

Tackling disparities in institutional capacity between regional and local governments is a central priority of the PND 2014-2018 (DNP, 2015). The National Planning Department (*Departamento Nacional de Planeación,* DNP) is designing a differentiated approach, built on a careful assessment of institutional competencies across municipalities and focused on supporting those where capacity is weakest (OECD, forthcoming). New education programmes, such as full-day schooling, also include explicit provision for capacity development and technical assistance (DNP, 2015). In addition, the MEN offers training to help weaker ETCs apply for national grants and take part in the new competitive financing schemes that aim to incentivise quality improvement, though more support is likely to be needed to ensure results-based funding mechanisms do not leave less developed departments even further behind (see Chapter 3).

It will be important for Colombia to continue these efforts if it is to raise performance standards across the country and ensure greater equity in learning opportunities. Strong co-ordination mechanisms are important in decentralised governance structures, both to ensure coherence and alignment among actors and to support capacity development (Charbit, 2011; OECD, forthcoming). Peer learning can be a powerful catalyst for improvement, and there is scope for the MEN to play a stronger role in facilitating knowledge exchange across ETCs. The MEN regularly convenes secretaries of education to discuss policy implementation; these meetings could be structured to enable more systematic sharing of good policies and practice. Several OECD countries with decentralised education systems, such as Canada, Germany and Switzerland, have used national councils of education secretaries to forge a collective vision for reform and encourage knowledge exchange (OECD, 2015c). They have also created collaborative platforms to strengthen capacity at the local level. In Germany, for example, the Learning Locally programme (*Lernen vor Ort*) has supported the development of networks to strengthen local government capacity in areas such as education monitoring, management and consulting. Decentralisation will only be an effective force for improvement if the MEN has the right information to identify and monitor the ETCs and the ETCs and local governments have the capacity to drive change and effectively support schools and school leaders.

Forging a shared, long-term vision

Effective decentralisation requires a shared vision across national actors and governance levels. This is particularly important when managing improvement in a complex system, where it is necessary to bring together a range of institutions and actors at different levels behind shared goals for reform (Hargreaves and Shirley, 2011; Fullan, 2011). Creating a shared vision requires clear targets that are commonly agreed and effectively communicated. Platforms for dialogue, where different stakeholders can

come together to discuss policy objectives, are also important to ensuring broad ownership of reform and coherent implementation.

The elevation of education as a presidential priority, and the overarching ambition to make Colombia the most educated country in Latin America by 2025, provides a strong basis for building a shared vision for reform in the country. The PND 2014-2018 defines a set of strategic priorities with measurable medium-term targets as well as longer-term objectives for change across all education levels, which are now being developed further in a four-year Sectorial Plan for Education (see Box 1.2). Long-term planning is important in the education sector, where change requires time to take effect, and major reforms, such as the introduction of a new curriculum, need careful planning and consultation. Such a longer-term planning horizon is supported in Colombia by a ten-year education plan (*Plan Decenal de Educación*), a new version of which is due to be developed for 2016-2026.

Colombia has invested efforts in strengthening national dialogue on reform. The priorities presented in the PND have been developed through consultation with regional authorities and a wide range of stakeholders, including the Federal Teachers' Union (*Federación Colombiana de Educadores*, FECODE) and the private sector. The National Council of Social and Economic Policy (*Consejo Nacional de Política Económica y Social*, CONPES), led by the Department for Social Planning, provides an additional platform for multi-sectorial consultation on key issues in education and other policy areas. At the tertiary level, the National Council of Higher Education, an advisory body of the MEN, has facilitated broad-based debate on the future of higher education, resulting in a shared long-term vision for the sector, detailed in the Agreement on Higher Education 2034 (CESU, 2015) (see Chapter 5). A similarly wide consultation process informed the development of the From Zero to Forever strategy for early childhood education. This inclusive approach is important to forging a common understanding of strategic priorities. The challenge is to maintain this collaborative momentum in the critical stage of implementing reforms.

Engaging education secretaries to get behind a common agenda for change will be essential to successful reform in Colombia. Within multi-level governance structures like Colombia's, close co-ordination between national and local authorities is essential to effective implementation (Charbit, 2011). The main instrument for policy alignment in Colombia are the ETCs' development plans for education services (*Plan de Desarrollo para la Prestación del Servicio Educativo*, PEDs), which all education secretaries are required to develop detailing how they intend to improve their education system in line with national objectives. For priority programmes, such as full-day schooling, the MEN is establishing separate agreements with education secretaries to ensure a shared understanding of targets and accountability for results. The MEN has also introduced financial incentives

to encourage local governments to give higher priority to education. Such proactive engagement is important, as experience with other national initiatives, like the From Zero to Forever strategy, suggests that scepticism and resistance at the local levels have presented obstacles to reform (Bernal, 2014; CIPI, 2013), (see Chapter 2).

Regular dialogue between the MEN and secretaries of education is vital to building the relationships and trust that provide the foundations for successful reform. Secretaries of education also need to take a proactive approach to build political support for education among municipalities under their responsibility, especially in large rural territories, where school systems are widely dispersed. Antioquia, which is the second largest department in Colombia, has made local mayoral involvement a central pillar of its campaign to make the department Colombia's "most educated". Such local leadership is essential to carry the strategic vision of the government into Colombia's classrooms.

International evidence shows that reform is most successful when every level of society is engaged (OECD, 2015c). Engaging families and communities, teachers unions, non-governmental organisations (NGOs), and the business community is crucial to achieving sustained improvement. Those regions that have advanced education reforms, such as Manizales and Bogotá, have invested in building partnerships and creating a social movement for change. The MEN has sought to generate such engagement at the national level though the creation of National Excellence Day; every year, on 25 March, all Colombians will be encouraged to reflect on the quality of education and its importance for individual and national development. The introduction of a performance index for every school is also intended to mobilise public demand for improvement. However, as subsequent chapters of this report will suggest, further efforts are needed in Colombia to engage civil society, in particular parents and communities, in the process of education reform. OECD countries have developed various vehicles to encourage this kind of engagement. The example of the Student Success/Learning to 18 Strategy in Ontario, Canada, is instructive of how one government has mobilised a wide range of stakeholders behind common goals and seen positive results in terms of student performance (Cerna, 2014b).

Creating a shared education vision can help secure reform over the long term, and avoid unnecessary changes of direction when a new government takes office. Colombia has embarked on an ambitious path of improvement that extends until 2025. It is important that it stays the course. The revision of the 2006-2016 decennial plan for education will be an opportunity to embed the objectives laid out in the PND in a longer-term strategy and ensure sustained political and financial support for the far-reaching reforms that are required.

Ensuring adequate and effective funding for education

Colombia faces multiple education funding needs at a time of slowing economic growth. In contrast to most OECD countries, but in common with other emerging economies, Colombia still needs to finance a considerable expansion of enrolment, in particular at the pre-school and post-primary levels. At the same time, increased resources are required to fund improvements in the quality of teaching and learning. Colombia must also look at ways to reduce high levels of inequity for both access and quality compared with both OECD countries and many other countries in Latin America. Meeting these demands will require adequate levels of public funding for education, greater efficiency and effectiveness in resource use, and coherence across policies to ensure that the drive for excellence does not deepen inequalities and that access and quality improvements are mutually reinforcing. International experience shows that with the right policies countries can progress on both fronts together, and in so doing achieve high returns for their societies and their economies.

Mobilising adequate funding for education

Despite increased investment in recent years, public funding for education in Colombia is below that of other major emerging economies in Latin America and per-capita spending is well below the OECD average. Continuing to expand the public resource base for education, while harnessing additional funds and improving the effectiveness of resource use, will be important if Colombia is to reach its ambitious education goals.

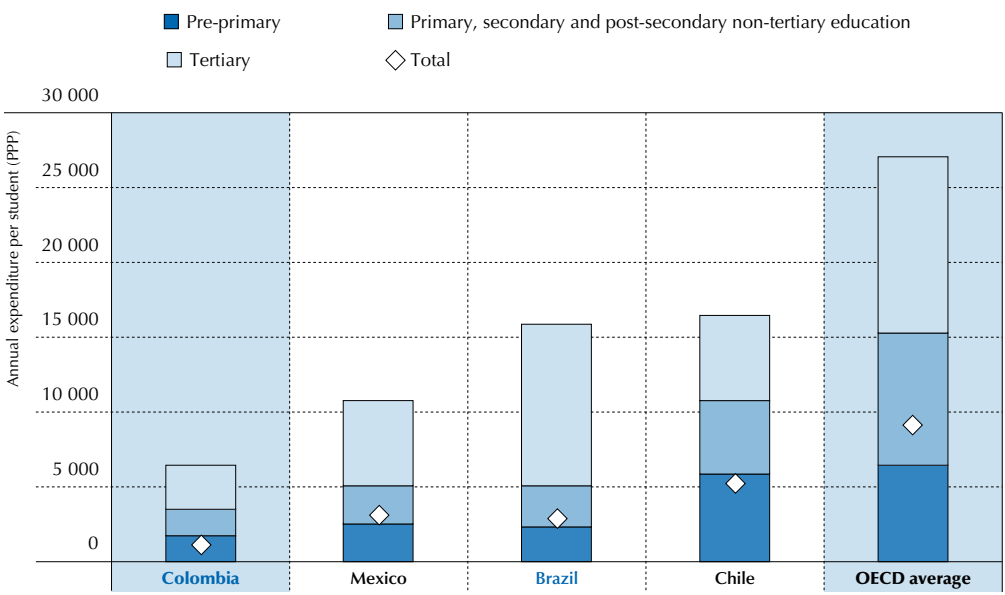
Colombia devotes a considerable and rising share of national resources to education. In 2011, total spending (public and private) across all education levels amounted to 6.7% of GDP, which is slightly above the OECD average of 6.1% (OECD, 2014a). Between 2000 and 2013 government spending on education rose from 3.5% of GDP to 4.9% (UNESCO-UIS, 2015). This puts Colombia in the middle of the 4-6% international benchmark for public expenditure on education in developing and emerging economies, above Chile (4.5%), but below Costa Rica (6.8%), Brazil (6.3%), and Mexico (5.1%) (UNESCO-UIS, 2015). In OECD countries, average public expenditure on education was 5% in 2011 (OECD, 2014a).

Surging private spending suggests that public funding has not kept pace with rising demand for education in Colombia. Between 2005 and 2011, private expenditure increased by 31% to account for 35% of overall education expenditure, more than double the OECD average (16%) and close to Chile's high level of private spending (40%) (OECD, 2014a). As in Chile, the majority of private spending in Colombia comes from households and is particularly high at the pre-primary and tertiary levels, where it accounts for 56% and

46% of all resources (compared with the OECD average of 31% and 19%). As subsequent chapters show, this high degree of private funding contributes to significant inequities in access to early childhood and tertiary education in Colombia.

Public spending per student in Colombia is far below the OECD average and that of other major emerging economies in Latin America. This is true at all levels, but in particular for upper secondary and tertiary education (Figure 1.8). Almost all public funding for primary and secondary education is absorbed by teachers' salaries (83%, compared to the OECD average of 63%). This leaves limited funds for investment in resources that could improve quality, such as teachers' professional development and text books. There are also scarce resources for the renovation and expansion of education infrastructure: 1.7% of spending is on capital expenditure compared with 7% in the OECD (OECD, 2014a),[7] and for spending on food, transportation and accommodation, which are important for reaching Colombia's disadvantaged students.

Figure 1.8. **Annual public expenditure on public institutions, per student in Colombia and selected countries (2011)**

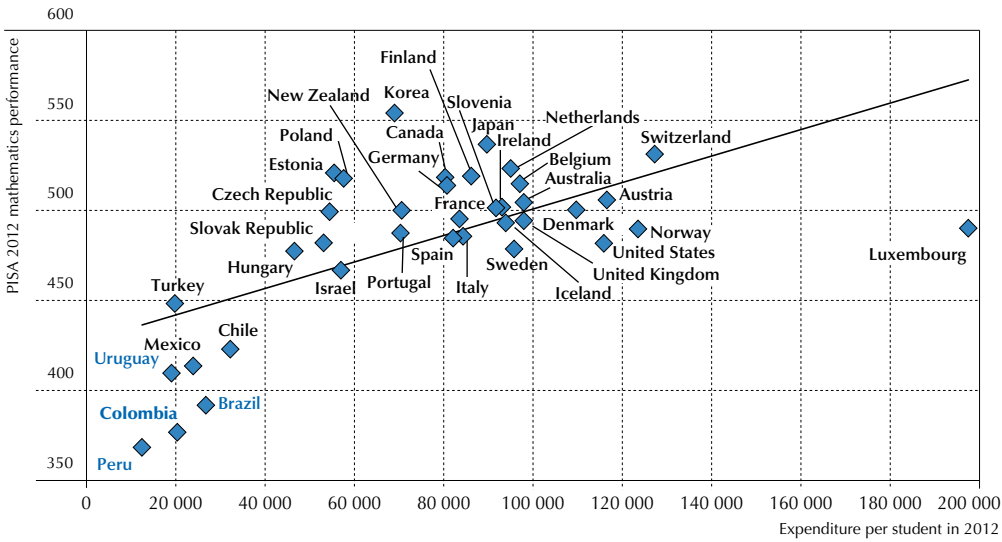


Note: Non-OECD countries are shown in blue.

Source: OECD (2014a), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en, Table B3.3.

OECD analysis shows that excellence in education requires much more than financial resources (OECD, 2013b). Countries such as Turkey and Uruguay have a similar total expenditure per student to Colombia but have much higher learning outcomes, showing that how funds are allocated is just as important as the level of resources available. However, the data do suggest that there is a threshold of per-student expenditure below which achievement is likely to suffer (Figure 1.9). For countries such as Colombia, with cumulative expenditure below USD 50 000 per student, higher expenditure on education is correlated with higher student scores (OECD, 2013b). The experience of many developing and emerging countries suggest that in contexts with high levels of poverty, additional spending, when used effectively, can improve learning outcomes for the poorest students (UNESCO, 2015).

Figure 1.9. **Spending per student age 6 to 15 and PISA mathematics performance (2012)**



Note: Non-OECD countries are shown in blue.

Source: OECD (2013b), *PISA 2012 Results: What Makes Schools Successful? (Volume IV): Resources, Policies and Practice,* PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en, Figure IV. 1.8, 2013a.

Colombia has committed to sustain funding for education despite recent fiscal pressures caused by the drop in global commodity prices. Budget cuts have significantly affected many areas of government but education priorities set in the PND 2014-2018 will continue to be supported at the levels planned. The national education budget increased from COP 27.3 trillion

(Colombian pesos, about USD 9.8 billion)[8] in 2014 to an estimated COP 28.9 trillion (approximately USD 10.4 billion) in 2015, which is higher than expenditure on defence (COP 28.2 trillion or USD 10.1 billion).[9] The ring-fencing of education in the current budget is a welcome move. The government is also implementing a range of measures to improve the efficiency of education spending, such as reorganising school networks (see Chapter 3). However, this is unlikely to be sufficient to achieve the educational improvements Colombia needs and is committed to in the PND. The construction of new classrooms alone under the full-day schooling initiative is estimated to require COP 4.5 billion (about USD 1.5 million) by 2018.

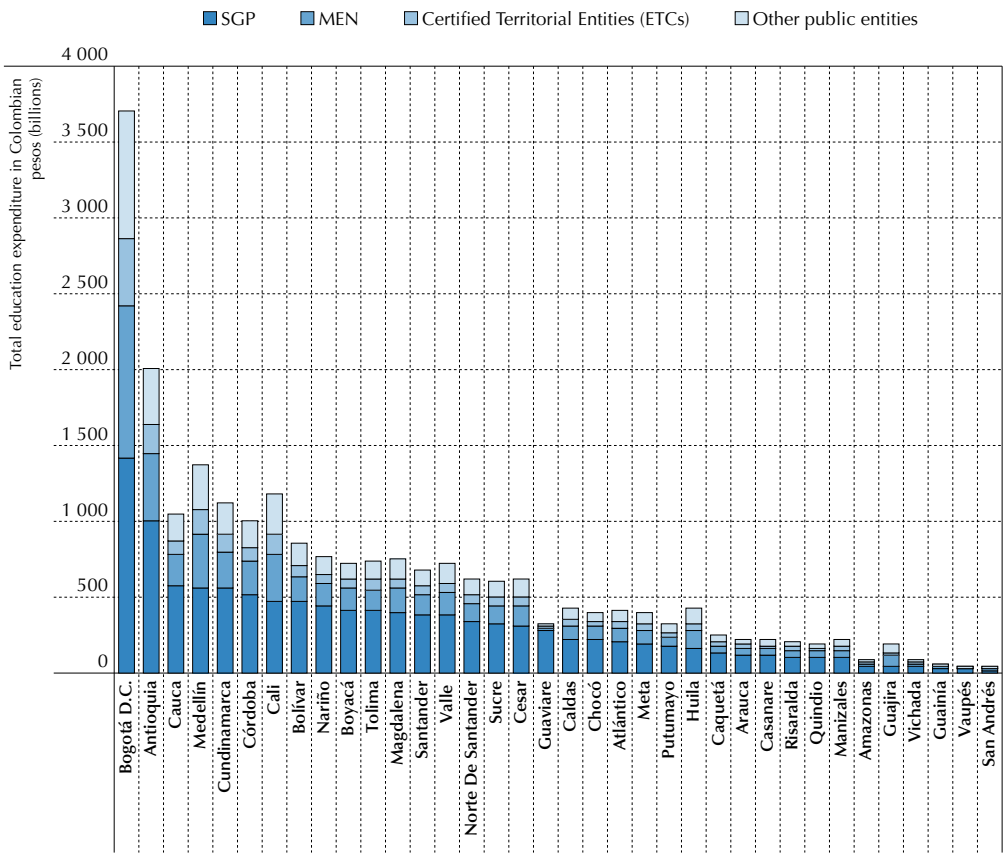
Additional measures will be needed to expand the funding base for education. Increasing national tax revenues represents a major structural challenge to improving public service delivery in Colombia, and is examined in more detail in the OECD Economic Survey of Colombia (OECD, 2015a). Other policies will also be important to widen the public resource base for education. Local resources are the most significant untapped source of funding for education in Colombia, and encouraging greater local investment in the sector will be essential to consolidating the decentralisation process. Stronger public-private partnerships and greater use of innovative financing models can also help to increase the range and level of funds available.

Stronger local leadership in education financing is essential if Colombia is to improve education access, equity and quality. The current financing system remains heavily centralised, with many local governments lacking the commitment, capacity and incentives to fund education improvements. The majority of public resources for education in Colombia are transferred by the Ministry of Education to departments, municipalities and schools through the System of General Participations (*Sistema General de Participaciones*, SGP), which is the main channel for redistributing funds from national taxation to support public services across the country (Figure 1.10). The share of public funding allocated through the SGP has decreased in recent years, falling from 80% in 2002 to 60% in 2013, while the share of public funding mobilised by ETCs has increased (from 8% to 13%), as has the share of funds distributed by the MEN for specific education policies, such as free education (Álvarez et al., forthcoming*;* MEN, 2015a). However, local spending on education remains extremely low compared with OECD countries. In 2011, central government accounted for 84% of all education public resources in Colombia, compared to the OECD average of 52% (OECD, 2014a).

There is a clear need, and also an opportunity, to mobilise greater local resources for education in Colombia. Departments and municipalities with strong local economies and political commitment to education, such as Antioquia, Barranquilla, Bogotá, Cali, Manizales and Medellín, have

succeeded in allocating considerable local funds for education. However, evidence suggests that the majority of ETCs lack both the fiscal capacity and political will to invest in education (Melo, 2005; Sanchez Torres and Pachon, 2013; Galvis, 2014). Stimulating greater local investment will require the right mixture of incentives and capacity development. The MEN is already doing much more to use national funds to encourage increased local spending, such as through match funding and competitive calls for grant proposals, and is providing technical assistance to help weaker ETCs benefit equally from such opportunities. However, inadequate local investment in education remains a major barrier to improvement (Álvarez et al., forthcoming; see Chapter 3).

Figure 1.10. **Distribution of funding, by source and by departments and selected ETCs**



Source: Ministry data.

Stronger public-private partnerships offer another channel for increased education investment, though one that needs to be navigated with care. Several ETCs have outsourced education service delivery to private providers as a means to create additional capacity to expand access to schooling. Publicly funded private organisations play an important role in providing ethnic education for specific populations and communities and delivering Colombia's many flexible school modalities. The majority of ECEC services provided by the ICBF are also delivered by private providers. The experience of Medellín, where around half of students attend private institutions supported by government vouchers, is instructive of the mechanisms needed to avoid some of the risks of public-private partnerships, such as segregation across schools and uneven quality (Patrinos, Barrera-Osorio and Guaqueta, 2009). For example, Medellín actively fosters networking between public and private schools to ensure weaker institutions can learn from the best.

Colombia has also been active in developing innovative funding models for education. Countries are increasingly looking for new ways of financing education to expand the resource base and use funds more effectively to spur improvements (IFF, 2013). In the SENA, Colombia has a strong and long-standing system for capturing corporate resources to support vocational education and training. Funded through the Income Tax for Equality (*Impuesto sobre la Renta para la Equidad*, CREE), it is an example of how Colombia is seeking to improve mechanisms to redistribute returns from economic growth to support greater equity in education, and close the financing gaps in sectors that are under-resourced, such as ECEC. More recently, in 2012, the government allocated 10% of oil and mining royalties to fund science, technology and innovation (see Chapter 5). This is good example of how natural resource windfalls can be invested in long-term human capital gains. In order to help finance the full school day, the MEN intends to create a National Education Infrastructure Fund (*Fondo de Financiamiento de la Infraestructura Educativa*) to pool public and private resources, and is looking to incentivise further private investment in school infrastructure development. At the local level, some governments have introduced special taxes to capture revenue for education. In Antioquia, for example, 2% of all alcohol sales are reserved for education and the department has been proactive in mobilising local corporate spending on tertiary education and training. This is an example that more local governments could follow.

Providing more effective financing to support equity and quality

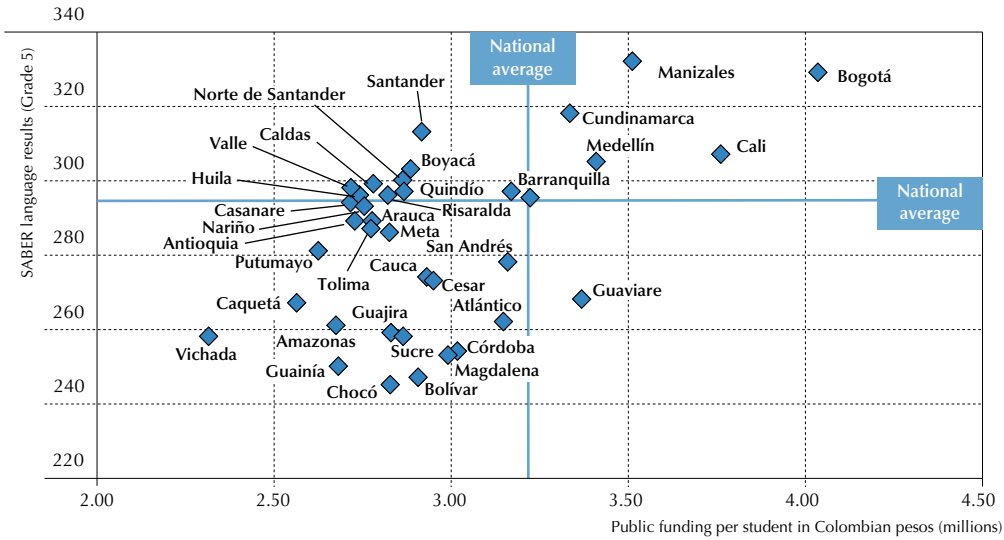
Increased funding for education will only deliver improvements if resources are allocated effectively. Evidence shows that how resources are distributed and used has a major impact on education outcomes (OECD,

2013b). Funding strategies, if designed well, can help steer improvements in both equity and quality. The major strides Colombia has made in expanding access have been driven by deliberate policies to remove financial barriers to education. Measures such as the abolition of school fees, conditional cash transfers, and school nutrition and transport programmes have brought increasing numbers of young Colombians into basic education, while tertiary loans have enabled many disadvantaged students to be the first in their family to progress beyond school to higher levels of learning. As well as improving the targeting of resources to redress inequities, the government has sought new ways to use funds to incentivise quality reforms and encourage achievement. Despite these efforts, socio-economic background still determines learning outcomes in Colombia far more than it does in the majority of OECD countries. The stubbornly wide gap in performance between the poorest and richest regions and students suggests that funding policies could be improved further to ensure all children in Colombia have equal opportunities to learn.

Recent years have seen important improvements in the SGP, the financing mechanism that determines how resources are distributed across territories and accounts for the majority of education spending, especially in the poorest municipalities. The funding formula has been revised several times to address the additional costs of educating low-income students better, with the introduction of weightings to compensate for rurality, poverty, minority status and other markers of disadvantage (Barrera-Osorio, Maldonado and Rodríguez, 2012). Additional efforts have been made recently to simplify the methodology used to allocate resources. The fact that SGP funds now follow the student has removed the distortions that occurred in the past, when the hiring of teachers was disconnected from student numbers and staff costs escalated. In an effort to drive up standards, the MEN has also sought to develop a more results-based approach, with a proportion of the SGP tied to performance indicators such as dropout rate, grade repetition and achievement on SABER assessments (see Chapter 3). However, only 8% of the SGP is available for such incentives. The fact that 83% of overall resources in primary and secondary education are still absorbed by teacher salaries severely limits the scope to use national transfers to improve equity and quality (Álvarez et al., forthcoming). Moreover, stakeholders interviewed during the review visit suggested that the increasing sophistication of the funding formula created undue complexity and unpredictability for local governments, and created challenges for transparency and accountability. This risk is underlined by international research, which points to the need for such funding schemes to be matched with complementary policies, particularly to strengthen school capacity, if they are to have the desired impact (Fazekas, 2012).

Figure 1.11 relates the achievement of Grade 5 students in SABER to expenditure per student. It points to the need for a multidimensional approach to address the overlapping factors affecting education performance in Colombia. Both spending and results vary hugely across territories. It is evident that the majority of departments and territories spend very little per student, and their results are equally low. The level of student spending also seems to be poorly related to the level of student needs. Many departments with high levels of unsatisfied basic needs are allocating very little to support disadvantaged students (Santa Maria, et al., 2009). For example, rural Chocó, with a poverty rate of over 60%, spends the same per student as Bogotá, one of the richest municipalities in the country with one of the lowest poverty rates (DNP, 2015). However, those departments and municipalities allocating more funds to support students, like Amazonas, Guaviare and Vichada, are not seeing commensurate improvements in quality. Poor management, corruption and a lack of complementary policies to support local capacity to improve schooling, impede the effective use of additional funds to enhance performance (OECD, 2012a, 2012b).

Figure 1.11. **Relationship between SABER performance and per-student spending, by departments and selected ETCs (2014)**



Source: Data provided by the MEN (Ministry of National Education); DANE (2015), "Educación formal", Departamento Administrativo Nacional de Estadistica (National Department of Statistics) website, www.dane.gov.co/index.php/esp/cultura-estadistica/89-sociales/educacion/3901-educacion-formal.

More effective funding in Colombia will require a range of measures across all levels of government. The capacity of the MEN to use the SGP to steer change will remain limited unless national and local authorities have greater flexibility over the allocation of teachers and the means to channel more and better qualified teachers to the poorest regions and schools. Given the limited discretionary funds available under the SGP, resources channelled through national programmes, like full-day schooling (*jornada única*) and "Let's All Learn" (*Todos a Apprender)*, will be critical to improving equity and quality in the country. It will be important for these programmes to reinforce each other, and be effectively integrated with other equity strategies, such as the More Families in Action (*Más Familias en Acción)* programme, to achieve better results (Box 1.3). Increased resources for poorer regions and schools will also need to be matched with better auditing and controls, and adequate investment in management capacity, to ensure funds are used to support their intended objectives.

Box 1.3. **Supporting schooling through conditional cash transfers, *Más Familias en Acción***

More Families in Action (*Más Familias en Acción*) is a conditional cash transfer to vulnerable families, (SISBEN[1] and special groups). In 2001, the programme started as a temporary measure, Families in Action (*Familias en Acción*), to address the negative social effects of the economic crisis in the late 1990s, and in 2012 became national policy following positive evaluations. The programme includes two types of cash transfers: 1) a lump sum per family with children under 7 years-old (regardless of the number of children) subject to the children's health controls; 2) for every 5-18 year-old (up to a maximum of 3 children per family), enrolled and regularly attending school (up to Grade 11) without failing a grade more than twice. In 2013, the programme had a total budget of 0.23% of GDP, and cash transfers represented an average expenditure of USD 310 per family per year (USD 173 per child), 15% of the value of the poverty line or 34% of the extreme poverty line. That same year, cash transfers were adjusted according to the level of urbanisation and poverty of the municipality, and increased when the child reached Grade 11. In 2013, 2.7 million families (4.7 million people) participated in More Families in Action, and different evaluations estimated the impact of the programme on poverty as somewhere between 1% and 1.2%. The Gini coefficient of inequality would have been half a point higher in the absence of the programme. Children in participating families have on average higher school attendance (by 4 percentage points), a higher probability of completing secondary school (6.4 percentage points), and a lower probability of 7-11 year-olds working (1.3 percentage points). On average, programme participation increased the education of young people aged 18 to 26 by 0.6 years.

1. The Identification System of Potential Beneficiaries of Social Programmes (*Sistema de Identificacion de Potenciales Beneficiarios de Programas Sociales*, SISBEN).

Source: OECD (2015d), *OECD Reviews of Labour Market and Social Policies: Colombia 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264244825-en.

Effective funding requires strong accountability mechanisms. Colombia has an established system of audits and yearly progress reports which ETCs and educational institutions are required to comply with. Recent efforts have been made to tighten such controls, notably in the auditing of tertiary institutions. Stronger information systems have also helped to improve accountability but more needs to be done (Barrera, 2014; see below). There is a particular need to improve information, accountability and management capacity at the school level. Unless school leaders and teachers are empowered to use additional resources to support learning in the classroom, then funding policies will have limited impact (see Chapter 3).

One final consideration is how public resources are allocated across education levels. As is natural for an emerging economy with a young population, Colombia invests more in primary and lower secondary education (3.6% of GDP) than the OECD average (2.5%). However, public investment in pre-primary education is low, in particular when compared with spending on tertiary education, which is above the OECD average (2% in Colombia compared with the OECD average of 1.6%). With 10% of Colombia's population below the age of 4 and around 60% of young children living in poverty, this allocation seems regressive, especially considering that tertiary education remains out of reach for the majority of students from low-income backgrounds. Both international evidence and national research from Colombia indicate that investment in quality early years learning yields high rates of return in terms of student performance in school and across a range of outcomes in adulthood, and that these rates of return are highest for those from the most marginalised groups (OECD, 2012a; Bernal, 2014). Prioritising spending on the early years is one of the most effective funding decisions Colombia could make to drive improvements across the education system (see Chapter 2).

Using information for system-wide improvement

Since 2000, Colombia has made significant efforts to improve education data and analysis. In many areas, such as the measurement of the added value of tertiary education, Colombia has been a pioneer. The Colombian Institute for the Evaluation of Education (*Instituto Colombiano para la Evaluación de la Educación*, ICFES) has the potential to be world class. The country also has a strong and influential education research community, whose work is widely used to inform national policy. These are strengths. To build upon them, Colombia will need to strengthen its information system management and address gaps in data quality and capacity for data use.

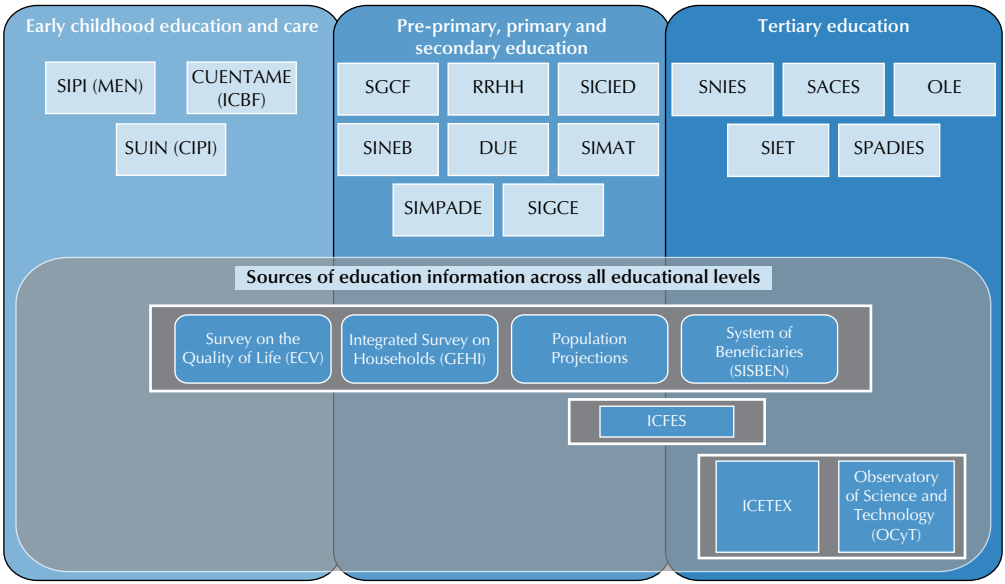
Creating a more integrated information system

Colombia's education information system is shaped by its governance structure. It comprises a large number of databases that are often poorly co-ordinated, creating both duplication and gaps in information and making it difficult to create a clear picture of education performance (Figure 1.12). The MEN is legally responsible for developing and implementing the national education information system but many other national actors also play a role. The three prominent information databases for early childhood education and care are managed by different actors: the MEN, the ICBF and the Inter-sectoral Commission for the Comprehensive Care of Early Childhood (*Comisión Intersectorial de Primera Infancia*, CIPI). The MEN manages multiple databases in pre-primary, primary and secondary education, and each certified territory is also required to have its own information system. While the MEN provides guidelines for the latter, secretaries of education can also design their own systems. Tertiary education institutions manage their own information; they are legally required to share information with the MEN, although until recently the ministry had limited means to ensure they did. SENA manages its own information system, applying its own criteria and standards to the monitoring of technical and technological institutions (OECD/IBRD/The World Bank, 2013; MEN, 2014). An overview of the main data systems in Colombia is provided in Annex 1.A3. A recent analysis of this complex matrix has shown that the majority of databases operate independently of each other, with their own structures, indicators and objectives (Piñeros et al., 2013). Access and use are often difficult and there are few tools to enable users to link data systems.

This lack of integration creates serious challenges for education stakeholders seeking to use information for accountability and improvement. Without common indicators and standards it is difficult to ensure consistency in the data. This affects the ability to track trends across education levels, assess performance within and between the ETCs, and exploit information for policy-making purposes (Piñeros et al., 2013; OECD/IBRD/The World Bank, 2013). The MEN has begun efforts to address these disconnects. For example, the CIPI has recently introduced an information system which aims to connect data from the various early childhood services, and the Early Childhood Information System (*Sistema de Información para la Primera Infancia*, SIPI) and the Enrolment Information System (*Sistema Integrado de Matrícula*, SIMAT) can now be linked to provide information on 5-year-olds entering the transition year. Further reforms are in the pipeline. The government plans to create a national registry of education (*Registro Nacional de Educación*, RENE) that will be available to the public and provide information on education from early childhood to the tertiary level (MEN, 2015d). The creation of the index of school quality (*Índice Sintético de Calidad Educativa,* ISCE), which integrates SABER and MEN data, is also intended to provide a

more holistic picture of school performance (MEN, 2014). Another step that Colombia might consider is establishing a shared framework of standards, indicators and methods of reporting that apply to all institutions (OECD, 2013d; Piñeros et al., 2013). This would not only help to facilitate system integration and the assessment of performance across institutions and regions, but also support equal standards in information quality.

Figure 1.12. **MEN's information system including databases and sources of education information**



Improving data quality

Good quality data are the backbone of a strong information system. In order to be an effective support for policy making, data need to be consistent, complete, reliable, timely and precise. Countries are constantly striving to improve the quality of their education data through better indicators, more systematic collection and stronger quality assurance (OECD, 2013d). In Colombia, the information system faces a number of data quality issues, the most important of which are weak capacity for data collection and use, in particular at the local level, and the absence of a strong, independent national body responsible for quality assurance.

Variations in statistical capacity across regions result in important differences in the quality and timeliness of data collected by ETCs and

reported to the MEN. In 2012, the MEN carried out an audit of education institutions to verify school enrolment rates; over 300 000 students who were said to be enrolled turned out to be "ghost" students. Anecdotal evidence suggests that many secretaries of education have difficulty in reaching rural areas to audit the reliability of data and often lack the technical capacity to do so. Information on infrastructure, in particular in rural areas, is limited, although the MEN is taking steps to address this through a comprehensive inventory between 2015 and 2018. Although private schools are legally required to provide data to ETCs regarding tuition fees, enrolment and other school data is frequently lacking. A recent review of ECEC information systems found that many were incomplete and unreliable (Bernal, 2014). At the tertiary level, institutional capacity to provide information varies considerably across the country (Piñeros et al., 2013). Across all levels, disaggregated information is often missing, even though this is essential for designing effective policy responses in a country with a high degree of inequality and local diversity. For example, data on schools do not include equity variables which would enable policy makers to identify and address the factors influencing the performance of disadvantaged institutions or regions (Piñeros et al., 2013). In addition to weak capacity to collect data, there also appears to be a lack of understanding of the value of data for policy making and how information can be used to steer improvement. Local stakeholders interviewed during the review visit referred to national reporting and monitoring mechanisms as checklists, and other studies have highlighted gaps in understanding at the local government and individual institutional level about how such exercises might support them in their daily work. This points to the importance of ensuring that efforts to build statistical capacity are combined with measures to explain the purpose of monitoring and reporting processes and help key stakeholders, in particular education secretaries and school principals, understand the results.

To improve the quality of data, many countries have introduced an independent quality assurance body or mix of agencies responsible for the information system and other areas of evaluation and assessment. Central quality assurance bodies can co-ordinate complex information systems, help set standards, ensure data quality and hold various stakeholders accountable (OECD, 2013d). An independent central agency can also be impartial and help inform the national debate without being subjected to political changes. Among OECD countries, for example, Mexico granted the National Institute for Educational Assessment and Evaluation autonomy to develop a strategic and coherent vision of assessment and evaluation in collaboration with the Secretariat of Public Education and decentralised bodies (OECD, 2015c). Colombia might consider strengthening and expanding the role of ICFES to oversee monitoring and evaluation at all education levels, including across institutions managed by SENA and ICBF, as a means to both enhance integration and improve data quality (Garcia Jaramillo et al., 2014;

OECD/IBRD/World Bank, 2013). ICFES could have the responsibility for establishing data and reporting protocols and providing capacity development to different data providers.

Conclusion

The upcoming renewal of the country's ten-year plan for education is an opportunity for Colombia to design a long-term reform agenda for the sector. Change is necessary at every level of education, and the following chapters will look at the policies and practices that can help Colombia nurture the talents of its young population from the earliest years, through school and onto further learning. Delivering these reforms will require the right enabling conditions in terms of strong stewardship, effective financing and sound information systems. The potential of Colombia's decentralised governance will only be realised if local governments have the capacity to improve learning in schools, and if the multiple actors involved in education work together towards the same goals. Funding will be a bottleneck to reform unless there is stronger collective investment in education, with a wider tax base, stronger local commitment and an allocation system that narrows equity gaps and rewards progress in lifting learning outcomes. Information systems, which are strong but underutilised in Colombia, need to be reoriented towards improvement and strengthened to focus on what matters: providing quality learning opportunities for all.

Annex 1.A1

Key indicators

Table 1.A1.1. **Key indicators, by economy, society and educational inputs and outcomes**

#	Key indicators	Colombia	Average or total	Min OECD	Max OECD
	Background information				
Economy					
1	GDP per capita, 2011, in equivalent USD converted using PPPs (OECD, 2014a)	10 303	n/a	17 125	88 668
2	GDP growth 2013 (OECD, 2015a, 2015e)	4.9%	1.4%	-3.9%	4.4%
Society					
3	Population density, inhab/km^2, 2014 (OECD, 2015a, 2015e)	41.7	36.7	3.05	499
4	Population aged less than 15 as a percentage of total population, 2012 (OECD, 2014d)	27.7%	18.5%	12.8%	28.8%
	Education inputs				
5	Duration of compulsory education	10	10	8	12
6	Age entering education (OECD, 2014a)	5	6	4	7
7	School life expectancy, estimated number of years in primary to tertiary, 2011 (UNESCO-UIS, 2015)	13.5	16.5	12.8	19.9
8	First age of selection in the education system (OECD, 2013b)	15	14	10	16
Enrolment rates					
9	Enrolment rates of 3-4 year-olds in early childhood education as a percentage of the population of the same age group, 2012 (OECD, 2014a)	61%	76%	12%	99%
10	Age range at which over 90% of the school age population is enrolled, 2012 (OECD, 2014a)	7-13	4-16	6-13	3-18

#	Key indicators	Colombia	Average or total	Min OECD	Max OECD
11	Gross enrolment rates in tertiary education, 2013 (UNESCO-UIS, 2015)	48%	71.5%	29%	116%
12	% of students reporting that they have repeated at least a grade in primary, lower secondary or upper secondary schools (OECD, 2013b)	40.6	12.4%	0.0%	36.1%
Funding					
13	Public expenditure on education as a percentage of GDP, 2011 (OECD, 2014a)	4.5%	5.6%	3.8%	8.7%
14	Annual expenditure per student by educational institutions, for all services, in equivalent USD converted using PPPs for GDP, 2011 (OECD, 2014a)				
	Pre-primary education	3 491	7 428	2 412	25 074
	Primary education	2 041	8 296	2 218	23 871
	Secondary education	2 207	9 280	2 736	16 182
	Tertiary education	6 882	13 958	7 868	26 021
15	Relative proportions of public and private expenditure on educational institutions, 2011 (OECD, 2014a)				
	Public sources	65.1	83.9%	59.9%	97.6%
	All private sources	34.9	16.1%	2.4%	40.1%
	Education outcomes				
Key PISA 2012 results (OECD, 2014b)					
16	Mean performance in mathematics	376	494	368	613
17	Annualised change in mathematics performance across PISA assessments	1.1	**-0.3**	**-3.3**	**4.2**
18	Annualised change in reading performance across PISA assessments	**3.0**	**0.3**	**-2.8**	**4.1**
19	Annualised change in science performance across PISA assessments	1.8	**0.5**	**-3.1**	**6.4**
20	% of students performing below Level 2 in mathematics	73.8%	23.1%	9.1%	54.7%
21	Score difference in mathematics performance in PISA between students in urban schools and rural schools AFTER adjusting for socio-economic status	17	13	-46	74
22	Score differences between boys and girls in mathematics	25	11	-6	25
Attainment rates, 2013 (OECD, 2015b)					
23	% of 25-34 year-olds whose highest level of attainment is lower secondary education or below	34.0%	17.0%	2.0%	52.0%
	% of 25-34 year-olds whose highest level of attainment is at least upper secondary education	40.0%	43.0%	23.0%	65.0%
	% of 25-34 year-olds whose highest level of attainment is tertiary education	26.0%	41.0%	22.0%	67.0%

#	Key indicators	Colombia	Average or total	Min OECD	Max OECD
24	% of 15-29 year-olds not in education, employment or training, 2013 (OECD, 2015b)	21.6%	15.5%	6.1%	31.3%
*Unemployment rates of 25-34 year-olds by educational attainment, 2013 (*OECD, 2015b*)*					
25	Below upper secondary	8.6%	20.6%	5.0%	54.0%
	Upper secondary and post-secondary non-tertiary	11.0%	10.9%	3.5%	37.1%
	Tertiary education	10.5%	7.7%	2.8%	33.1%

Note: Annualised change in performance which is statistically significant is marked in bold.

Sources: OECD (2015a), *OECD Economic Surveys: Colombia 2015*, OECD Publishing, Paris. http://dx.doi.org/10.1787/eco_surveys-col-2015-en; OECD (2015b), *Education at a Glance Interim Report: Update of Employment and Educational Attainment Indicators*, OECD Publishing, Paris, www.oecd.org/edu/EAG-Interim-report.pdf; OECD (2015e), OECD.STAT website, http://stats.oecd.org/; OECD (2014a), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en; OECD (2014b), *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264208780-en; OECD (2014d), *OECD Factbook 2014: Economic, Environmental and Social Statistics*, OECD Publishing, Paris, http://dx.doi.org/10.1787/factbook-2014-en; OECD (2013b), *PISA 2012 Results: What Makes Schools Successful? (Volume IV): Resources, Policies and Practice*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en. UNESCO-UIS (2015), "Browse by theme: Education", *Data Centre*, UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx.

Annex 1.A2

Key governance actors by level

Table 1.A2.1. **Key governance actors by level**

Regional, local and institutional

	Stakeholders	Role and responsibilities
National (system) level	Ministry of Education (MEN)	• Funds education through SGP resource allocation • Service regulation • Policy drafting • Result evaluation • Inspection and supervision • Defines, designs, regulates, and maintains a sectoral information system
	Other ministries and the President's Office	• The Ministry of Health and Social Protection, Ministry of Culture, Ministry of Labour, Ministry of Commerce, Industry and Tourism, and others work with MEN to develop education policy. • The President's office is responsible for driving and coordinating policy and leading a number of commissions, including the Inter-sectoral Commission for the Comprehensive Care of Early Childhood (CIPI).
	Colombian Institute for the Evaluation of Education (ICFES)	• Provides the framework for the evaluation system of the whole education system • Designs, implements and analyses the standardised SABER assessments in grades 3, 5, 9, 11 and tertiary education (SABER Pro)
	National Learning Service (SENA)	• Operates under the Ministry of Labour • Offers and implements comprehensive training in secondary and tertiary education and non-formal training (known as education for work and human development)
	Colombian Institute for Family Welfare (ICBF)	• National family well-being body responsible for children younger than 5 years-old under the Social Prosperity Department (DPS) • Coordinates ECEC provision and provides technical assistance and support to service providers and staff

	Stakeholders	Role and responsibilities
	Other national bodies	• National Planning Department (DNP): defines, recommends and promotes public and economic policy (CONPES) and prioritises resource allocation according to the National Development Plan. • National Department of Statistics (DANE): plans, collects and analyses Colombia's official statistics. • Councils, such as the National Council of Higher Education (CESU) or the Social Policy Councils, which support the policy making process by engaging multiple stakeholders
Regional and local level	Certified educational territories (ETCs) – 95 secretaries of education from 34 departments and 42 municipalities.	• Provide and manage education services for preschool, primary and secondary education • Manage SGP resources and information • Manage staff • Design and implement quality improvement plans • Monitor and apply education inspection and supervision • Support non-certified municipalities
	Non-certified entities	• Implements departmental management of SGP resources earmarked for quality • Provides information required by the nation
Institutional level	Tertiary institutions	• Autonomous institutes which respond to the MEN. • Public institutions manage funds provided by the central government.
	Institutional leadership	• Manages the institution based on the Institutional Education Project, including the curriculum • Leads the Executive and Academic Committees and coordinates School Government bodies • Drafts annual improvement plans • Manages and evaluates staff • Monitors and assesses the quality of the institution • Manages the Education Service Fund (resources) • In ECEC centres, administrative coordinators establish mechanisms to monitor and evaluate.
	Teachers	• Support quality improvement of the school • Responsible for student learning and their assessment
	Parents and students	• Interact with teachers and institutional leadership.
Other stakeholders		• Private sector (foundations, employers); NGOs; Teachers' Unions (FECODE)

Source: Updated table 2.1 from MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Annex 1.A3

Colombia's information system

Table 1.A3.1. **Colombia's information system by education level**

Education level	Name of information system	Objectives and target audience
Pre-primary education	Information System (Cuentame)	• Managed by ICBF for contractors and service providers. • Collects information on the different services the ICBF offers.
	Unique System of Children's Information (SUIN)	• Introduced in 2008 by the Inter-Sectoral Commission of ECEC (CIPI). • Collects information regarding 50 different indicators of children's participation in ECEC.
	ECEC system information (SIPI)	• Managed by the MEN to maintain information about beneficiaries of a specific ECEC programme (*Programa de Atención Integral a la Primera Infancia*, PAIPI).
Primary and secondary education (national and ETC level)	National Primary and Secondary Information System (SINEB)	• Public and private education institutions report data to municipalities and/or departments on the institutions, students' academics, teacher data in private schools, and others. • Targets territorial entities, Secretaries of Education and MEN.
	Evaluation and Tuition Information System for Private Institutions (EVI)	• Manages the institutional quality evaluation process for services provided by private preschool, primary, and secondary education institutions, including financial information and tuition fees. • Tool to be used by educational institutions, Secretaries of Education and MEN.

Education level	Name of information system	Objectives and target audience
	National Education Contracting Information System (SINCE)	• A strategy used in the Coverage Expansion Project for Vulnerable Populations led by the MEN to facilitate access to formal education for children and teenagers in populations affected by the armed conflict, as well as indigenous communities, dispersed rural areas and the disabled.
	Education Infrastructure System (SICIED)	• Quantifies, evaluates and rates the status of education institutions against standards. • Enables the MEN to make a diagnosis on the education infrastructure and make timely decisions for the continuous improvement of school environments.
	Integrated Enrolment System (SIMAT)	• An enrolment management system which facilitates updating and exchanging information on public school students. • Provides Secretaries of Education with reliable information for decision making.
	System of Human Resource Management (RRHH)	• Supports Secretaries of Educations' management, organisation, and information process related to human resource management • Information includes the results on teacher performance and school leadership.
	National Education Institution System – Searching for a School	• Information is gathered from the Unique Directory of Education Centres (DUE), which is managed by Secretaries of Education. • A directory of education institutions and key characteristics for the general public to consult.
	Follow-up system	• Used for follow-up reports regarding teaching staff and primary and secondary enrolment. • Information is available to the general public and the education community.
	Law 21/82 Collection Information System	• Contains information for the MEN on payment agreements between an entity and the MEN to facilitate tax collection. • Tool allows payment of contributions to industrial schools and technical schools (1% of their monthly payroll), entities belonging to exemption schemes, which have not been regulated.
	Gratuity Resource Follow-up System	• Aims to follow up on the General Contributions System (SGP) resources transferred for fee-free preschool, primary, and secondary education. • Mayors and school principals input the information.
Information system for Secretaries of Education		
	Information System of Education Quality Management (SIGCE)	• Tool for Secretaries of Education

Education level	Name of information system	Objectives and target audience
	System of Financial Control and Management (SGCF)	• Tool to help Secretaries of Education make management decisions based on a review of management indicators which aim to optimise financial resources.
	System of Client Support (SAC)	• Collects information and statistics on the engagement of the Secretary of Education with the community based on specific standards on service to citizens by the ICONTEC.
Education level	Name of information system	Objectives and target audience
Postsecondary education and tertiary education	Professional Training Information System (SIET)	• Secretaries of Education record information on professional training institutions and programmes with approval to function from a territorial entity. The MEN verifies the information. • Provides public information on the legality of institutions and programmes.
	Labour Observatory for Education (OLE)	• Collects information on tertiary graduates, employment and labour market trends from the National Registry Office, Ministry of Social Protection and Ministry of Finance and Public Credit. • Aims to analyse the relevance of tertiary education and provide the public with information on graduates' profiles, average salaries and links to the formal economy.
	Tertiary Education Quality Assurance System (SACES)	• Tertiary education institutions include in this tool information on the procedures related to the Official Registration and other institutional procedures, such as acknowledgment of Legal Registration, Systemic changes, authorisation for the creation of branches, and others • Aims to improve the quality of programmes and students' education • Information for tertiary education institutions
	System for the Prevention and Analysis of Dropout (SPADIES)	• Public tool to follow-up on tertiary students who drop out.
	National Tertiary Education Information System (SNIES)	• Collects public information from registered tertiary education institutions and their programmes. • Aims to support planning, monitoring, evaluation, inspection and supervision of tertiary education.

Note: For readers of the print edition, links to the relevant sites are embedded in the digital version.

Sources: MEN (n.d.a), "Sistemas de información", Ministerio de Educación Nacional (Ministry of National Education) website, www.mineducacion.gov.co/1621/w3-propertyvalue-44150.html; MEN (n.d.b), "Servicios de información para la Secretarias de Educación", Ministerio de Educación Nacional (Ministry of National Education), www.gestionsecretariasdeeducacion.gov.co/.

Notes

1. The size of the informal economy depends on its definition, which can be based on occupation or size of business. Informal workers can be those who are self-employed or work independently, work in small firms, or own a small business. These small firms might not have to comply with some or all the legal requirements applying to larger firms, in relation to company registration, paying taxes, registration in the national social security system and book-keeping (OECD, 2012a; Peña, 2013).

2. Where possible the data used for this report came from OECD databases, and when this was not possible, such as in the case of trend data or Latin American regional comparisons, the UNESCO Institute of Statistics (UIS) database was used.

3. Compulsory education refers to the range of ages during which schooling is mandatory as defined in the OECD's *Education at a Glance*. In Colombia, compulsory education ends at age 15, indicating that all students under 15 are legally obliged to participate in education.

4. Enrolment rates can be expressed in net enrolment rates or gross enrolment rates. The net enrolment rate refers to the percentage of students in the theoretical age group for a given level of education enrolled in that level as a percentage of the total population in that group. The gross enrolment rate refers to the general level of participation in a given level of education. Because of students repeating grades, the gross enrolment rate can be larger than 100%. The net enrolment rate is always lower than 100%.

5. TERCE is a large-scale study of learning achievements applied in 2013; 15 countries took part (Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay), plus the Mexican state of Nuevo León (Mexico). This study assesses the performance of students in Grades 3 and 6 in mathematics, reading and writing (language), plus natural sciences in the case Grade 6.

6. Colombia has a socio-economic stratification system which classifies the population by different strata with similar-economic levels. It is organised in six levels: strata level 1 is the poorest, strata levels 2, 3 and 4 are low to middle-income populations, while strata levels 5 and 6 are the wealthiest.

7. Figure includes post-secondary non-tertiary education.

8. Using the exchange rate on 13 September 2015.

9. This budget does not include funding for SENA, the Colombian Institute for Student Loans and Study Abroad (*Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior*), ICFES or the Administrative Department of Science, Technology and Innovation (*Departamento Administrativo de Ciencia, Tecnología e Innovación*), as these are separately funded.

References

Álvarez Marinelli, H., A. Nury Martínez, M. Pinzón Caicedo and L.J. Piñeros (forthcoming), *Nota de Política: Oportunidades y Desafíos en el Sector Educativo Colombiano,* Inter-American Development Bank, Bogotá.

Barrera, M. (2014), *La Educación Básica y Media en Colombia: Retos en Equidad y Calidad*, Fedesarrollo: Centro de Investigación Económica y Social, Bogotá, Colombia.

Barrera-Osorio, F., D. Maldonado and C. Rodriguez (2012), "Calidad de la educación básica y media en Colombia: Diagnostico y propuestas", *Serie Documentos de Trabajo,* No. 126*,* Economics Faculty, University of Rosario.

Bernal, R. (2014), "Diagnóstico y recomendaciones para la atención de calidad a la primera infancia en Colombia", *Cuadernos Fedesarrollo,* No. 51, Fedesarrollo, Bogotá, Colombia, www.fedesarrollo.org.co/wp-content/uploads/2014/04/debate_pres_2014_cuad51.pdf.

Cerna, L. (2014a), "Innovation, governance and reform in education", CERI Conference Background Paper, 3-5 November 2014,OECD, www.oecd.org/edu/ceri/CERI%20Conference%20Background%20Paper_formatted.pdf.

Cerna, L. (2014b), "Trust: What it is and why it matters for governance and education", *OECD Education Working Papers*, No. 108, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jxswcg0t6wl-en.

CEDLAS/World Bank (2015), "Stats", *Socio-Economic Database for Latin America and the Caribbean,* Centro de Estudios Distributivos, Laborales y Sociales, Universidad Nacional de la Plata and The World Bank *,* http://sedlac.econo.unlp.edu.ar/eng/statistics.php.

CESU (2015), *Acuerdo por lo Superior 2034 (Agreement on Higher Education 2034*), Consejo Nacional de Educación Superior (National Council of Higher Education), www.dialogoeducacionsuperior.edu.co.

Charbit, C. (2011), "Governance of public policies in decentralised contexts: The multi-level approach", *OECD Regional Development Working Papers*, No. 2011/04, OECD Publishing, Paris, http://dx.doi.org/10.1787/5kg883pkxkhc-en.

CIPI (2013), *De Cero a Siempre: Informe de Seguimiento y Evaluación a la Estrategia de Atención Integral a la Primera Infancia*, Comisión Intersectoral de Primera Infancia (Intersectoral Commission for the Comprehensive Care of Early Childhood), Bogotá, www.deceroasiempre.gov.co/QuienesSomos/Paginas/Documentos.aspx.

Cortes, D. (2010), "Do more decentralized local governments do better? An evaluation of the 2001 decentralization reform in Colombia", *Universidad del Rosario Faculty of Economics Working Paper,* No. 84, 22 June 2010, University of Rosario, http://ssrn.com/abstract=1703543.

DANE (n.d), "Distribución de la población total, según municipio 2005", *Geoportal,* Departamento Administrativo Nacional De Estadística (National Department of Statistics), https://geoportal.dane.gov.co/geoportal/.

DANE (2015), "Educación formal", Departamento Administrativo Nacional de Estadistica (National Department of Statistics) website, www.dane.gov.co/index.php/esp/cultura-estadistica/89-sociales/educacion/3901-educacion-formal.

DNP (2015), *Bases Plan Nacional de Desarrollo 2015-2018*, Departamento Nacional de Planeación (National Planning Department), Bogotá.

DNP (2014), "Lineamientos para la generación de oportunidades para los jóvenes", *Documento Conpes*, No. 173, Consejo Nacional Política Economice y Social, Departamento Nacional de Planeación, Bogotá.

Duarte, J., M.S. Bos and J.M. Moreno (2012), "Calidad, igualdad y equidad en la educación Colombiana (Analisis de las pruebas SABER 2009)", *Notas Tecnicas*, IDB-TN-396, Inter-American Development Bank, Washington, DC.

Econometría/SEI (2014), *Colombia – Evaluación Institucional y de Resultados de la Estrategia Modelos Educativos Flexibles (MEF),* Departamento Nacional de Planeación (National Planning Department) and Ministry of National Education, Bogotá.

Faguet, J.P. and F. Sanchez (2008), "Decentralization's effects on educational outcomes in Bolivia and Colombia", *World Development,* Vol. 36/7, pp. 1294-1316, http://dx.doi.org/10.1016/j.worlddev.2007.06.021.

Fazekas, M. (2012), "School funding formulas: Review of main characteristics and impacts", *OECD Education Working Papers*, No. 74, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k993xw27cd3-en.

Fazekas M. and T. Burns (2012), "Exploring the complex interaction between governance and knowledge in education", *OECD Education Working Papers*, No. 67, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k9flcx2l340-en.

Fullan, M. (2011), "Choosing the wrong drivers for whole system reform", *Seminar Series*, No. 204, Centre for Strategic Education, http://edsource.org/wp-content/uploads/Fullan-Wrong-Drivers1.pdf.

Galvis, L.A. (2014), "Eficiencia en el uso de los recursos del SGP: Los casos de la salud y la educación", *Documentos de Trabajo sobr e Economia Regional,* No. 207, Centro de Estudios Economicos Regionales (CEER), Banco de la Republica, Cartagena, Colombia, no. 207, August 2014.

Garcia Jaramillo, S., D. Maldonado Carrizosa and C. Rodriguez Orgales (2014), "Propuestas para el mejoramiento de la calidad de la educación preescolar, básica y media en Colombia", *Cuadernos Fedesarrollo,* No. 49, Fedesarrollo, Bogotá, Colombia.

Garcia Villegas, M., J.R. Espinosa Restrepo, F. Jimenez Angel and J.D. Parra Heredia (2013), *Separados y Desiguales: Educación y Clases Sociales en Colombia,* Centro de Estudios de Derecho, Justicia y Sociedad, Dejusticia, Bogotá.

Hargeaves, A. and D. Shirley (2011), *The Far Side of Educational Reform*, Canadian Teachers' Federation, www.ctf-fce.ca/Research-Library/Report_EducationReform2012_EN_web.pdf.

Hernandez, A. and D.A. Pinilla (2010), "Visibilización de la población étnica en el Censo general 2005: Análisis comparativo de los principales indicadores demográficos", *Revista de la Información Básica,* Vol. 4/2, https://www.dane.gov.co/revista_ib/html_r8/articulo5.html.

ICFES (2012), *Estudios Sobre Calidad de la Educación en Colombia*, Instituto Colombiano para la Evaluación de la Educación (Colombian Institute for the Evaluation of Education), www.icfes.gov.co/index.php/docman/investigadores-y-estudiantes-de-posgrado/resultados-de-investigaciones/resultados-de-investigaciones-1/973-estudios-sobre-calidad-de-la-educacion-en-colombia-2012.

iDMC (2013), "Colombia IDP figures analysis", Internal Displacement Monitoring Centre website, www.internal-displacement.org/americas/colombia/figures-analysis.

IFF (2013), "Innovative financing for global education", *ESP Working Paper Series*, No. 58, Innovative Finance Foundation, Open Society Foundation, www.opensocietyfoundations.org/sites/default/files/innovative-financing-global-education-20140106_0.pdf.

Melo, L. (2005), "Impacto de la descentralización fiscal sobre la educación pública Colombiana", *Borradores de Economía,* No. 350 Banco de la Republica, www.banrep.gov.co/es/contenidos/publicacion/impacto-de-la-descentralizacion-fiscal-sobre-la-educacion-publica-colombiana.

MEN (n.d.a), "Sistemas de información", Ministerio de Educación Nacional (Ministry of National Education) website, www.mineducacion.gov.co/1621/w3-propertyvalue-44150.html.

MEN (n.d.b), "Servicios de información para la Secretarias de Educación", Ministerio de Educación Nacional (Ministry of National Education), www.gestionsecretariasdeeducacion.gov.co/.

MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2015b), "Estadísticas sectoriales de educación básica y media", Ministerio de Educación Nacional (Ministry of National Education) website, http://menweb.mineducacion.gov.co/seguimiento/estadisticas/.

MEN (2015c), Proyecto de Modernización de Secretarias de Educación website, Ministerio de Educación Nacional (Ministry of National Education), www.modernizacionsecretarias.gov.co/.

MEN (2015d), "Aviso de convocatoria Concurso de Méritos CM-MEN-02 de 2015", *Convocatorias y Concursos,* Ministerio de Educación Nacional (Ministry of National Education), www.mineducacion.gov.co/1621/w3-article-349617.html.

MEN (2014), *Rendicion de Cuentas,* Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2012), *Orientaciones Generales para la Atención Educativa de las Poblaciones con Discapacidad – PcD- en el Marco del Derecho a la Educación*, Ministerio de Educación Nacional (Ministry of National Education), Bogotá, www.colombiaaprende.edu.co/html/micrositios/1752/articles-320765_Pdf_2.pdf.

Nieto Parra, S. and M. Olivera (2012), "Making reform happen in Colombia: The process of regional transfer reform", *OECD Development Centre Working Papers,* No. 309, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k9gs20l5x0x-en.

OAS (2010), "Executive summary", in *Statistics and Education Policies Related To Early Childhood Transitions: Studies from Colombia, Chile, Peru, Venezuela and Brazil,* Organization of American States, Washington, DC, http://portal.oas.org/LinkClick.aspx?fileticket=4qm9uGCDowc%3D&tabid=1317.

OECD (forthcoming), *Regional Development Policy Committee Accession Report of Colombia,* OECD Publishing, Paris.

OECD (2015a), *OECD Economic Surveys: Colombia 2015*, OECD Publishing, Paris. http://dx.doi.org/10.1787/eco_surveys-col-2015-en.

OECD (2015b), *Education at a Glance Interim Report: Update of Employment and Educational Attainment Indicators,* OECD Publishing, Paris, www.oecd.org/edu/EAG-Interim-report.pdf.

OECD (2015c), *Education Policy Outlook 2015: Making Reforms Happen,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264225442-en.

OECD (2015d), *OECD Reviews of Labour Market and Social Policies: Colombia 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264244825-en.

OECD (2015e), OECD.STAT website, http://stats.oecd.org/.

OECD (2014a), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

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

OECD (2014c), "Poverty rate" (indicator), OECD, http://dx.doi.org/10.1787/0fe1315d-en (accessed on 22 July 2015).

OECD (2014d), *OECD Factbook 2014 : Economic, Environmental and Social Statistics*,OECD Publishing, Paris, http://dx.doi.org/10.1787/factbook-2014-en.

OECD (2013a), *Colombia: Implementing Good Governance*, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264202177-en.

OECD (2013b), *PISA 2012 Results: What Makes Schools Successful? (Volume IV): Resources, Policies and Practice,* PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.

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

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

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

OECD (2012b), *Strengthening Integrity and Fighting Corruption in Education: Serbia,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264179646-en.

OECD (2011), *Reviews of National Policies for Education: Improving Lower Secondary Schools in Norway 2011*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264114579-en.

OECD/CAF/ECLAC (2014), *Latin American Economic Outlook 2015: Education, Skills and Innovation for Development*, OECD Publishing, Paris, http://dx.doi.org/10.1787/leo-2015-13-en.

OECD/IBRD/The World Bank (2013), *Reviews of National Policies for Education: Tertiary Education in Colombia 2012*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264180697-en.

OECD/IDB (2014), *Government at a Glance: Latin America and the Caribbean 2014: Towards Innovative Public Financial Management*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264209480-en.

Patrinos, H.A., F. Barrera-Osorio and J. Guaqueta (2009), *The Role and Impact of Public-Private Partnerships in Education,* The World Bank, Washington, DC, www.ungei.org/resources/files/Role_Impact_PPP_Education.pdf.

Peña, X (2013), "The formal and informal sectors in Colombia: Country case study on labour market segmentation", *Employment Working Paper*, No. 146, International Labour Office, Geneva, www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_232495.pdf.

Piñeros, L., B. Caro Acero and L. Villa Arcila (2013), "Diagnostico de los sistemas de información de la educación inicial, básica, media y superior", ESOCEC Ltd., July 2013.

Saavedra, J.E. and C. Medina (2012), "Formación para el trabajo en Colombia", *Borradores de Economía,* No. 740, Banco de la República, www.banrep.gov.co/sites/default/files/publicaciones/archivos/be_740.pdf.

Sánchez Torres, F. and M. Pachon (2013), "Decentralisation, fiscal effort and social progress in Colombia at the municipal level, 1994-2009: Why does national politics matter?", *IDB Working Paper Series,* No. IDB-WP-396, Inter-American Development Bank.

Santa Maria, et al. (2009), *La Descentralización y el Financiamiento de la Salud y la Educación en los Departamentos: ¿Cuales son las Alternativas?*, Fedesarrollo: Centro de Investigación Económica y Social, Bogotá, Colombia.

UNESCO (2015), *EFA Global Monitoring Report 2015 – Education for All 2000-2015: Achievements and Challenges*, United Nations Educational, Scientific and Cultural Organization, http://unesdoc.unesco.org/images/0023/002322/232205e.pdf.

UNESCO Office of Santiago (2015), *Segunda Entrega de Resultados: TERCE (Tercer Estudio Regional Comparativo y Explicativo),*) [Second results from the Third Regional Comparative and Explanatory Study], UNESCO Oficina Regional de Educacion para America Latina y el Caribe (Regional Bureau for Education in Latin America and the Caribbean), www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Santiago/pdf/Cuadernillo2.pdf.

UNESCO-UIS (2015), "Browse by theme: Education", *Data Centre,* UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx.

UNHCR (2015), "Internally displaced people figures", United Nations High Commissioner for Refugees website, www.unhcr.org/pages/49c3646c23.html.

UNICEF (2012), *Estudio de País: Colombia*, Iniciativa Global Por Las Niñas Y Los Niños Fuera De La Escuela, United Nations Children's Fund.

WEF (2014), "Country/Economy Profiles: Colombia", *The Global Competitiveness Report 2014–2015,* World Economic Forum.

World Bank (2015), "World development indicators", *World DataBank,* The World Bank, http://data.worldbank.org/data-catalog/world-development-indicators.

World Bank (2014), *Colombia Policy Notes: Towards Sustainable Peace, Poverty Eradication, and Shared Prosperity*, The World Bank Group, Washington, DC.

Chapter 2

Early childhood education and care in Colombia

Colombia has made important strides in developing and expanding early childhood education and care (ECEC) in recent years, in particular for vulnerable and disadvantaged families. However, participation rates and quality in ECEC, particularly in rural areas, remain below OECD standards. This chapter examines challenges and solutions for developing a high quality and equitable ECEC system in Colombia. It analyses the importance of upgrading ECEC provision to improve the educational benefits gained at this level. It explores how Colombia can continue to expand access and reinforce the transition to school. The chapter also identifies the need for better co-ordination between different ECEC providers, in particular the National Ministry of Education (MEN) and the Colombian Institute for Family Welfare (ICBF), and looks at ways Colombia can strengthen the whole ECEC system through greater and more effective investment in the early years and improved accountability.

Early childhood education and care (ECEC) is essential for a strong start in life and in learning. Both national and international evidence highlight the benefits of ECEC on a child's well-being as well as for families and society (Bernal, 2014; ICFES, 2014; OECD, 2012a). International studies have shown that investment in high-quality early years learning yields high rates of return in terms of student performance in school and across a range of outcomes in adulthood (OECD, 2012a). In Colombia, a cost benefit analysis shows that participation in a community-based childcare programme (*hogares comunitarios de bienestar familiar,* HCB*)* brought higher salary benefits later in life than an additional year in tertiary education (Bernal, 2014). Expanding the provision of high-quality ECEC is one of the most important steps that Colombia could take to improve overall education performance and enhance social equity.

Colombia has made significant, positive progress in developing its ECEC provision. It has moved towards a more formalised system, invested in professionalising ECEC staff through widespread training and focused on reaching the most disadvantaged children who stand to gain the most. It has done so while emphasising a rights-based, holistic approach to children's development from birth. As a result of these efforts, participation rates in ECEC have surged. Between 2007 and 2013, enrolment in ECEC services among 0-5 year-olds in Colombia more than doubled, from 16% to 41%. Colombia can build on this progress in the years to come.

Considerable steps are still needed to ensure equitable access to high-quality ECEC in Colombia. Participation rates are low by OECD standards: only 48% of 3-year-olds and 75% of 4-year-olds are enrolled in early childhood education compared with the OECD average of 70% and 82%, respectively (OECD, 2014). Just two-thirds of 5-year-olds are enrolled in the transition year before the start of primary school, even though it is meant to be mandatory. Weak provision and lack of awareness of the importance of ECEC are major factors behind low enrolment (Álvarez et al., forthcoming; Bernal, 2014).

While Colombia promotes an integrated approach to ECEC, the educational component is underdeveloped. Public ECEC services can be divided into pre-primary school provision, which is educational in focus but only reaches a minority of children, and the community, family and institutional modalities (as they are known in Colombia), which are primarily focused on care and account for the majority of ECEC services. The lack of emphasis on learning is particularly problematic in a context where many children experience weak home learning environments. The institutions and systems that support ECEC also need to be strengthened if Colombia is to steer the expansion of the sector effectively. This chapter analyses the main features of ECEC in Colombia, the policies that have supported progress and the actions Colombia needs to take to ensure all children have a strong start in learning.

Context and main features

Policy objectives

The past 20 years have seen several major reforms in ECEC policy in Colombia and a marked increase in the importance accorded to the sector (Annex 2.A1). The General Education Law of 1994 defined pre-primary education for 3-5 year-olds as the first phase of a child's schooling and made enrolment in the transition grade (Grade 0, for 5-year-olds) compulsory for all Colombian children. In 1991 the government adhered to the Convention on the Rights of the Child and in 2006 reaffirmed in national law its commitment to ECEC as a fundamental right for all children in Colombia from birth to six years of age. Legislation in 2009 (Law 1295) mandated that ECEC policies should pay special attention to the most disadvantaged children.[1]

In 2011, ECEC was made a presidential priority with the adoption of the Early Childhood Comprehensive Care Strategy – From Zero to Forever (*Estrategia para la Atención Integral de la Primera Infancia - De Cero a Siempre*). The strategy provides a framework to harmonise ECEC governance and provision and defines the actions required to guarantee comprehensive care for all children, in particular the poorest and most vulnerable (Box 2.1). The goal is to ensure that by 2018, 2 million 3-5 year-olds are enrolled in ECEC and all children in extreme poverty participate in early childcare programmes. While the Zero to Forever strategy refers to all services targeting children under six, it does not directly address pre-primary education (pre-kindergarten to the transition year) which is governed by the same legislation as primary and secondary schooling.

The National Development Plan 2014-2018 (*Plan Nacional de Desarrollo 2014-2018*, PND) reaffirms the priority given to ECEC, and introduces several important measures to further expand access and improve quality. Notably, the PND pledges to transform the From Zero to Forever strategy into national legislation to ensure its long-term sustainability and regulate key aspects of provision. The proposed legislation would establish ECEC (0-5 years-olds) as the first cycle of the education system; define standards for the different ECEC stakeholders; introduce mechanisms to provide and finance inspection, quality assurance, control and technical support; and define the process of transition to basic education (DNP, 2015). Other important ECEC policy initiatives included in the PND aim to: 1) improve staff qualifications; 2) develop an information system and quality index to collect information on children and their progress in ECEC; 3) continue developing and implementing the technical guidelines for ECEC provision; 4) introduce a quality management system to support ECEC institutions in delivering ECEC services; and 5) incentivise enrolment in ECEC through the expansion of the conditional cash transfer programme More Families in Action (*Más Familias en Acción)* (DNP, 2015). The PND recognises that improving ECEC is not just

the first essential step towards improving education in the country, but is also central to bridging equity gaps and eliminating extreme poverty.

Box 2.1. **Supporting children From Zero to Forever**

In 2011, the Early Childhood Comprehensive Care Strategy – From Zero to Forever (*Estrategia para la Atención Integral de la Primera Infancia – De Cero a Siempre*) was introduced as a high-priority policy for the Colombian government to transform and improve ECEC for children from birth until five years of age. The strategy has set ambitious targets to guarantee children's constitutional right to free healthcare and education in their early childhood years through high-quality, socially inclusive, comprehensive ECEC. Thus, it has aimed to achieve universal coverage of ECEC with a particular focus on the country's poorest and most vulnerable children. The strategy also aims to: 1) improve the quality and coverage of ECEC provision; 2) ensure the implementation of ECEC in departments and municipalities across Colombia; 3) implement an evaluation and monitoring system for ECEC; 4) develop a knowledge management system for ECEC; and 5) mobilise Colombian society to support the development of ECEC.

To accomplish these goals a number of key actions have been implemented to harmonise the provision and objectives of ECEC and co-ordinate the various entities and organisations involved in ECEC:

- The creation of the Inter-sectoral Commission for the Comprehensive Care of Early Childhood (*Comisión Intersectorial de Primera Infancia*, CIPI) which has provided a co-ordinated approach to ECEC by defining the roles and responsibilities of key national actors.
- The introduction of a comprehensive ECEC framework defining the various types of ECEC provision that have emerged outside of pre-primary education in Colombia. There are three main modalities: family, community and institutional. Each modality has five key components: 1) care and upbringing; 2) health, diet and nutrition; 3) early childhood education; 4) recreation; and 5) civic education and participation.
- The development of technical benchmarks for family and institutional modalities, which set ECEC guidelines in six key areas: 1) family, community and networks; 2) health and nutrition; 3) pedagogy; 4) human talent; 5) educational environment; and 6) administration and management. As part of this, the profiles of ECEC staff have been defined and their qualifications have been raised to guarantee a minimum level of compliance with the competencies needed for the meaningful development of a child.

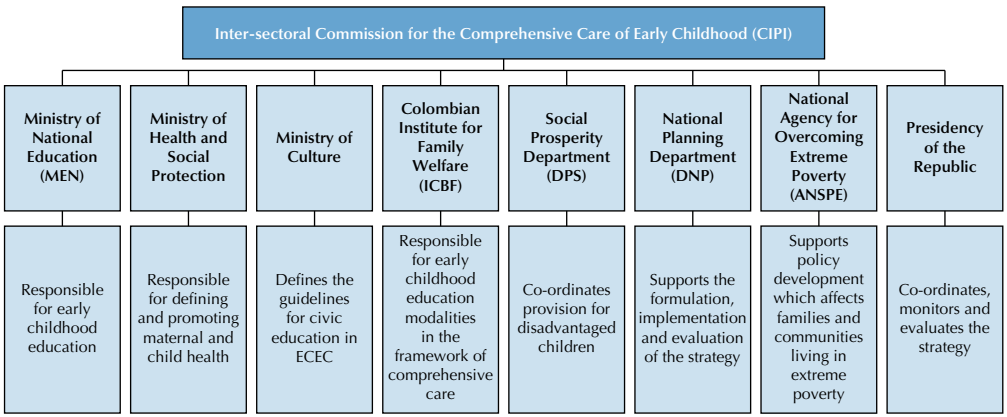
The From Zero to Forever strategy has spurred increasing participation in ECEC. In 2010 only 566 429 children under the age of five were enrolled in comprehensive ECEC; by 2014 the number reached by the strategy had risen to 1 040 351. The goal is to increase enrolment in ECEC to 2.4 million under fives (subsequently revised to 2 million children aged up to five years) and to ensure that 100% of children in extreme poverty are participating in ECEC by 2018.

Sources: Government of Colombia (2014), *Estrategia de Atención Integral a la Primera Infancia: De Cero a Siempre: Informe de Balance y Prospectiva,* Government of Colombia, Bogotá; Government of Colombia (2015), De Cero a Siempre website, Consejería Presidencial para la Primera Infancia (Presidential Advisory Council on Early Childhood), www.deceroasiempre.gov.co/Paginas/deCeroaSiempre.aspx; MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Governance

The creation in 2011 of the President's Inter-sectoral Commission for the Comprehensive Care of Early Childhood (*Comisión Intersectorial de Primera Infancia*, CIPI) has improved the governance of ECEC in Colombia in several respects. The CIPI has strengthened co-ordination across the multiple actors involved in ECEC management and provision, including the Ministry of National Education (*Ministerio de Educación Nacional*, MEN), the Ministry of Health and Social Protection, and the Colombian Institute for Family Welfare (*Instituto Colombiano de Bienestar Familiar*, ICBF) (Figure 2.1). The CIPI was pivotal in forging the whole-of-government approach to ECEC that is one of the strengths of the From Zero to Forever strategy. Biannual reports to Congress ensure accountability over implementation of the strategy (World Bank, 2013). The creation of the CIPI under the President's office has also raised the importance of ECEC within the government and helped draw increased public and political attention to the issue. However, there are indications that stronger leadership and greater co-ordination at all governance levels is needed if government targets are to be met (see Policy Issue 3 below).

Figure 2.1. **National actors in the governance of ECEC**



Source: MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

The MEN and the ICBF share principal responsibility for ECEC services. The From Zero to Forever strategy charges the MEN with the role of defining ECEC policies and guidelines, implementing the quality management system and monitoring ECEC provision at the national level, while the ICBF is responsible for implementing ECEC public services and

managing providers at the regional level (World Bank, 2013). However, the absence of a regulatory framework which clearly defines their roles means that the current distribution of responsibilities between the two is blurred. Although the MEN has developed some ECEC guidelines, it plays a much more limited role in setting standards and monitoring the community, family and institutional modalities run by the ICBF. While a number of OECD countries also have split systems of ECEC governance, such as France, the Netherlands and Portugal, this is usually based on having different policy objectives for different ages (e.g. care in the earliest years and education from the age of three or four). In Colombia, the provider determines policy, with the result that children of the same age can receive very different services depending on the institution they attend. This goes against the clear trend across OECD countries towards greater integration of ECEC systems as a means of providing comprehensive care for children and better supporting their transition from the home into the school system. In addition, most OECD countries concentrate key responsibilities (except quality assurance and monitoring) within a lead ministry, usually the ministry of education, given its focus on children's education and learning (OECD, 2012a).

Although not specifically defined in a legislation, in practice the central governance arrangements are mirrored at the departmental and municipal level. The Certified Territorial Entities (*Entidades Territoriales Certificadas,* ETCs; see Chapter 1) are responsible for the overall design and implementation of ECEC policies in the areas under their jurisdiction, while ICBF regional co-ordinators manage the delivery of most ECEC services, except for pre-primary education in schools, which is managed by local secretaries of education. In some ETCs, such as Medellín, the mayor's office has taken on a stronger co-ordinating role and sought to achieve greater synergies across providers (Alcaldía de Medellín, 2014). The From Zero to Forever strategy calls for the creation of local inter-sectoral technical committees for ECEC to perform roles similar to the CIPI nationally in terms of co-ordination and policy alignment although there is little evidence of the impact this has on governance. Within the framework of the CIPI the MEN and the regional ICBF offices have programmes to develop the capacity of local actors to manage and deliver ECEC services. These programmes are usually implemented through public-private alliances. To date, some 274 departments, municipalities and ethnic communities have received guidance in developing implementation plans for ECEC service delivery in their jurisdictions (Government of Colombia, 2014).

At the institutional level, governance varies widely. The ICBF contracts the majority of services through third-party entities, such as community organisations, foundations or employers. These third-party entities, along with ECEC centre administrators and lead community mothers (see below), are responsible for managing the care and education within each institution

and for ensuring five-year-olds transition to the formal education system. ECEC provision in schools, which in most cases is just the transition year, falls under the responsibility of the schools (see Chapter 3). In 2014, the MEN published ECEC guidelines for the family and institutional modalities which include key standards for the management of ECEC services, such as meeting legal requirements, maintaining a budget, assessing results and evaluating the quality of ECEC services, and gathering and updating data on users (see MEN, 2014a). However, there are limited mechanisms at national or local government level to ensure institutional standards are followed.

A strong and positive relationship between families, communities and ECEC services is crucial to good-quality ECEC (OECD, 2012a). This is particularly important among marginalised groups, where additional efforts are often required to connect services with different socio-cultural traditions and to educate parents on how to support their child's diverse care, educational, health and nutritional needs (OECD, 2012a). Colombia has invested considerable efforts in ensuring multi-stakeholder engagement in ECEC policy, both in terms of encouraging cross-sectoral involvement (health, education, protection, culture) and in terms of promoting public and community outreach. Major public policies, including the From Zero to Forever strategy, have been developed through significant national consultation and social mobilisation processes (CIPI, 2013b; Vizcaino Pulido, Ramirez Suarez and Cuellar Garcia, 2010). The From Zero to Forever strategy itself gives high priority to promoting public awareness of the rights of the child and strengthening the role of the family unit as the primary provider of early childhood care and development. The ECEC guidelines defined by the MEN also set several standards for family and community engagement, including understanding the family, informing families about ECEC services and how to register children, and encouraging families to engage in child development activities in the home (MEN, 2014a).

Funding

Despite Colombia's increased prioritisation of ECEC, overall funding for early childhood services and the share of investment per child is lower than most in OECD countries. In 2011, Colombia spent 0.5% of gross domestic product (GDP) on pre-primary education, which was slightly below Mexico and the OECD average (0.6%) and considerably less than Chile (0.8%) (OECD, 2014). The amount of resources devoted to each Colombian child in pre-primary education (USD 3 491) is very low when compared to the OECD average (USD 7 428) and Chile (USD 5 083) (OECD, 2014). Across education levels, Colombia spends four times more on tertiary education than pre-primary education. Across OECD countries, the ratio is less than 3:1 (OECD, 2014).

Over half of spending on ECEC in Colombia comes from private sources (54%) compared to the OECD average of 19%. About 22% of Colombian children attend private ECEC institutions, primarily catering for 3-5 year-olds, which is twice the OECD average of 11% (OECD, 2014). As at other educational levels, private provision is almost exclusively for children from high-income families. Unlike some OECD countries, the government does not provide parents with subsidies to pay for private ECEC provision. Public ECEC services are free at the point of delivery, but in some cases, parents contribute small amounts according to their income (MEN, 2015a). The majority of public investment in ECEC goes to infrastructure and staff salaries; very limited resources are available for quality improvement such as staff development and learning materials.

Disadvantaged children and their families receive financial incentives and additional support to attend public ECEC services. Since 2012, public education has been free for all children and free lunches have encouraged vulnerable families to access the transition year in schools. Social welfare programmes such as More Families in Action (*Más Familias en Acción*) and United Network (*Red Unidos,* previously *Juntos*) provide comprehensive support to disadvantaged families. More Families in Action is a conditional cash transfer programme which aims to reduce poverty and inequities by providing payments on the condition that families access health and education services, such as vaccination, medical check-ups, and primary and secondary education (see Box 1.3 in Chapter 1). In 2014, 2.68 million families benefited from the second phase of the programme and the government aims to increase this to 2.71 million families by 2018 (DNP, 2015). Under the PND, the government has begun extending the conditionality of this programme to include pre-primary education, with the aim of achieving universal coverage in the transition year (grade 0). The United Network aims to combat extreme poverty in Colombia by targeting the most disadvantaged families (displaced families and those in SISBEN level 1) through health interventions and support for the development of children under the age of 10. Evaluations of these programmes have shown them to have had positive effects on ECEC, in particular on improving child nutrition (Arango 2004 in Vargas-Barón, 2009). These efforts notwithstanding, high tuition costs in private institutions and the limited supply of public ECEC services create significant barriers to access for the majority of Colombia's children, some 60% of whom are classed as living in poverty.

Funding for MEN and ICBF provision is sourced and allocated differently. In 2011, the CIPI sought to rationalise the various existing sources and channels for ECEC funding, with the result that the majority of funding for non pre-primary ECEC services are now channelled through the ICBF as the main agency responsible for provision (World Bank, 2013). Most of the funds managed by the ICBF come from the Income Tax for Equality

(CREE), which is a national levy on employer profits and gains.[2] Funding for pre-primary education, including the transition year, is allocated through the national budget and the General Participatory System (*Sistema General de Participaciones*, SGP) (see Chapter 3). Certified regional bodies are also encouraged to provide funding for ECEC, but evidence and field visits indicate that only those with strong financial capacity and political commitment to ECEC allocate significant resources to the sector (see Chapter 1). Despite these efforts, the limited public funding available for ECEC remains fragmented across a range of sources and institutions, compounding governance challenges and making efficiency gains more difficult to achieve.

Organisation of pre-primary and ECEC services

Public ECEC services can be divided into pre-primary school provision and the three ICBF modalities (as they are known in Colombia), community, family and institutional. Table 2.1 lays out the 10 different types of ECEC service available to children under 6 in Colombia, which have developed according to different community contexts.

Most ECEC provision is offered through the community modality which provides care for children up to five or until the child enters the education system, generally for families in paid work who need day care. It covers various types of services (Table 2.1), including the community home, which was introduced in 1987 by the ICBF for disadvantaged families and children. On average 13 children attend a community home and they receive comprehensive care on a full-day basis, 5 days a week, including meals, nutritional controls and food supplements. This type of care involves strong community engagement as it is provided in a community space or in the home of a local mother. The educational component of the community modality has been considered weak, and one of the aims of the From Zero to Forever strategy is to transform some community-based centres to meet the institutional modality standards to improve the quality of learning support they provide (World Bank, 2013; MEN, 2015a).

The family modality reaches more children and expectant and breastfeeding mothers than the other modalities and is particularly important for families in rural areas who have limited access to other modalities. The family modality is run from either a community space or from the home of a local mother. There is usually a teacher and pedagogical auxiliary for every 40 children (MEN, 2014a). On average about 12 to 15 families are reached through one provider and they receive comprehensive care, from support in pregnancy and breastfeeding to child health, nutrition and education. Families are visited in their homes on a monthly basis and participate in educational meetings. While the programme covers all children from before birth until age five, it primarily caters to children up to two years old (MEN, 2015a).

Table 2.1. **Types of ECEC provision in Colombia**

Modality	ECEC service	Share of provision and beneficiaries (2013/14)	Key characteristics
Community modality	Traditional Community Family Home Community Welfare Homes (FAMI) Grouped Community Welfare Homes	• 69% of all ECEC provision (about 47 158 centres) • 635 208 children	It targets children up to five or until they enter the education system. In most cases these services operate in the homes of local or community mothers. The care component predominates in these services. Under the new strategy some community modalities will become part of the institutional modality while the majority will remain in the homes of community mothers.
Family modality	Family-based community centres	• 25% of all ECEC provision (about 16 779 centres) • 789 610 children and expectant and breastfeeding mothers	The care component predominates in this modality and it targets mainly children from before birth up to two, but may include children until the age of five. Provision is prioritised for children and families living in rural areas or with difficulty accessing institutional care settings. The programme includes educational home visits and group meetings.
Institutional modality	Child Development Centres Multi-purpose community centres Company-based centres Other types (social nurseries, child centres, and infant and pre-schooler care centres)	• 7% of all ECEC provision (about 4 468 centres) • 445 489 children	The government has focused on developing Child Development Centres (*Centros de Desarrollo Infantil,* CDIs), particularly in urban areas. They have a comprehensive model which aims to provide both a care and educational component. Staff include ECEC teachers, psychologists, social workers, nutritionists, and nurses.
Pre-primary school modality	Pre-kindergarten and kindergarten	• 197 264 children in public schools	These grades are part of formal education and are intended for 3-4 year-olds as initial education.
	Transition year	• 800 052 children in public schools	Compulsory and intended for 5-year-olds under the Law 115 of 1994.

Sources: World Bank (2013), *Colombia: Early Childhood Development*: *SABER Country Report 2013,* The World Bank, http://wbgfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/CountryReports/ECD/SABER_ECD_Colombia_CR_Final_2013.pdf; MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

The institutional modality currently represents the smallest share of ECEC services and is mostly offered in urban areas, although it is expected to take up most of the projected increase in participation for children of pre-primary age (MEN, 2015a). This modality is usually referred to in OECD countries as a centre-based ECEC service, and it caters to children between the ages of two and six or until they enter the transition year, although children younger than two can participate if there is space available. It can be provided through employer-based centres to care for the children of workers or through purpose-built child development centres (CDIs) which offer care five days a week, on either a part-time or full-day basis. They offer meals and child development programmes and are staffed by individuals with specialist qualifications in pedagogy, health and nutrition, psychosocial work and administration. Groups in this modality are organised by age, with 1 teacher for every 20 children over 2 (MEN, 2014a).

Pre-primary in the formal education system includes the pre-kindergarten (*pre-jardín*) and kindergarten (*jardín*) grades and the compulsory transitional year (*transición*). Pre-primary education, especially the transition year, has a sharper educational focus than other ECEC modalities as it aims to prepare children for school, although each school is free to determine its own curriculum. The amount of time young children spend in pre-primary and the number of meals they receive vary depending on school and local resources, and are usually more limited than what is provided by community and institutional modalities.

Monitoring and quality assurance

In accordance with the From Zero to Forever strategy, the MEN introduced ECEC guidelines in 2014 to provide basic standards for the family and institutional modalities (see MEN, 2014a, 2014b, 2014c, 2014d). Guidelines for the community modality are being developed which are expected to bring this service more into line with the institutional modality. Following the comprehensive vision of the From Zero to Forever strategy, these standards cover all aspects of child well-being: care and upbringing, health and nutrition, initial education, civic engagement, and recreation (MEN, 2014a). The guidelines address basic inputs and processes (number of carers per child, administrative actions, infrastructure needs for a comprehensive environment). They provide clearer orientation regarding the skills and training expected of staff than existed in the past. They also offer direction on the type of learning activities that should take place in the different modalities, focusing on experiences related to play, exploration, art and literature (see MEN, 2014a). The guidelines do not, however, set expectations of children's educational and developmental outcomes. Almost all OECD countries have a curriculum or learning standards from

the age of three until compulsory schooling, which focus on cognitive and socio-emotional development in addition to a strong focus on play (OECD, 2012a). Colombia does not have a national curriculum or learning standards for children of pre-primary age, and the decision on what basic competencies should be nurtured, how and to what level is taken by service providers and staff (OECD, 2012a).

The system for monitoring and ensuring that institutions meet basic ECEC standards appears somewhat fragmented. The ICBF is responsible for monitoring standards across its ECEC services through its Office of Quality Assurance, including auditing, certification and oversight of service providers (ICBF, 2014a). While the MEN sets the standards, it does not regulate the mechanisms the ICBF uses to evaluate and assess quality in its services (World Bank, 2013). The ICBF has a number of information systems which collect information on children and services it manages directly, including Tell Me (*Cuéntame*) and the Unique System of Children's Information (*Sistema Único de Información de la Niñez,* SUIN) (ICBF, 2014b, 2014c). However, most services are provided by third parties, which ICBF has limited means of monitoring. The MEN's Early Childhood Information System (*Sistema de Información para la Primera Infancia*, SIPI) and quality assurance mechanisms focus only on services offered through the school system and are not integrated with the ICBF's systems. The MEN has begun piloting the Child to Child Monitoring System (*Sistema de Seguimiento y Monitoreo Niño a Niño,* SSNN), an information system which aims to join up the sector's different information systems to improve the information about each child and their placement (ICBF, 2014d).

The monitoring and quality assurance of ECEC institutions has not been centrally regulated yet, although the ICBF has introduced a performance self-assessment procedure in its institutions. There are four main quality assurance tools that ICBF's institutions can use: 1) an annual register of enrolled children; 2) a user satisfaction survey of parents, which is formulated and implemented by the ECEC provider; 3) data analysis, which depends on the data collected by each provider; and 4) an assessment of policy implementation by each provider. From site visits by the review team it was not clear that the various ECEC services used these tools. It was also evident from the review visit that ECEC institutions get limited feedback on how they could improve the quality of their services.

The government recognises the need to strengthen quality assurance. The PND for 2014-2018 aims to introduce additional monitoring and quality assurance mechanisms, which will provide more information about the quality of ECEC services including those operated by the ICBF and private providers (see Policy Issue 3).

Childcare providers and pre-primary teachers

Colombia has invested significant effort and resources into improving the quality of ECEC staff, in particular the childcare providers known as community mothers. Until recently, qualification requirements were extremely low. Community mothers, who constitute the largest proportion of ECEC staff (approximately 62 000 in 2014), were not required even to have a secondary education (MEN, 2015a). The 2014 ECEC guidelines for community and institutional modalities require both new and existing community mothers, and any provider of ICBF childcare provision, to obtain a professional technical degree (a short tertiary qualification equivalent to ISCED level 5; see Chapter 5) in pedagogy or child development in addition to having five years' experience (see MEN, 2014a). All childcare providers in ICBF modalities – community, family and institutional – are also required to participate in a 60-hour introductory workshop on the guidelines and standards for comprehensive care, although there are indications that the professional activities are quite basic, and more focused on management issues than pedagogy. Opportunities for in-service training and professional development likewise appear limited. While the new ECEC guidelines foresee stronger evaluations, at present there is no formal appraisal system for childcare providers, nor any clear mechanism to address quality concerns regarding staff practices should these arise (see MEN, 2014a).

In terms of employment benefits, staff in ICBF childcare modalities are hired by individual providers who are free to define the type of contract they receive. They receive at least a minimum wage or its equivalent for the number of days worked during the month. There is evidence that pay varies considerably depending on the service provider and region. For example, ECEC teachers in Medellín's Good Start Programme (*Buen Comienzo*) receive a monthly salary of USD 653, while ECEC teachers in Bogotá earn USD 759 per month and community mothers in the national community modality programme receive a monthly stipend of USD 146 (Araujo, Lopez-Boo and Puyana, 2013). Overall, staff in ICBF modalities earn less than pre-primary school teachers, although they are responsible for the comprehensive care of children of the same age. Nor do they receive recognition as civil servants, which pre-primary teachers have (Londoño and Romero, 2005 in Vegas and Santibáñez, 2010). Evidence suggests that pay and other working conditions have an indirect impact on the quality of ECEC, staff turnover and the overall status of the ECEC workforce (OECD, 2012a).

Transition year pre-primary teachers in public ECEC services are subject to similar requirements as primary teachers (see Chapter 3). They must graduate with a minimum of a bachelor's degree (*licenciatura*) or a *normalista*

certificate from a Higher Teaching School (*Escuela Normal Superior*, ENS) in childhood education, special education, psychology, pedagogy, educational psychology or pre-primary education. In addition, pre-primary teachers, like teachers in basic education, are subject to a competitive entrance exam and enrolment in a registry (*Escalafón Docente*) which classifies teachers' professional level and calculates their salary (see Chapter 3). The difference in qualification levels suggest that pre-primary teachers will have better pedagogical capacity and knowledge than community mothers, meaning significant variations in the quality of educational support that children of pre-primary age can expect to receive.

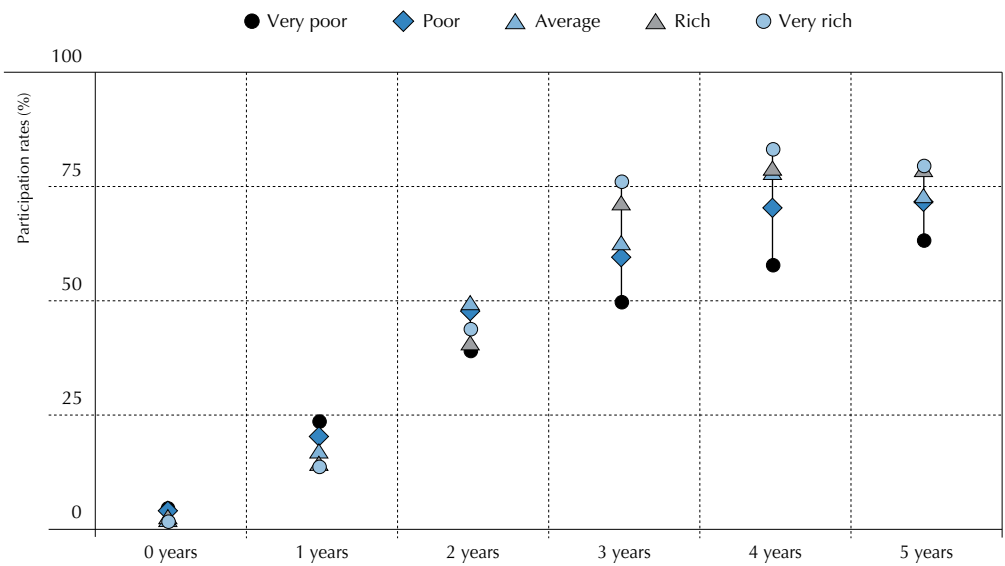
Leadership also varies according to modality. ICBF services are led by ICBF co-ordinators and pre-primary provision in schools is managed by the school principal (see Chapter 3). Like pre-primary teachers, ICBF co-ordinators must have a graduate degree in social or human science, education or administration, in addition to one year of professional experience. They need a number of key skills, such as leadership, teamwork, decision making, conflict resolution and administrative skills (MEN, 2015a). Information on institutional leadership in ECEC services is limited.

Major trends in access, equity and quality

The government's long-term goal is to make comprehensive ECEC accessible for all children. There are some 5.1 million children currently under 6 years of age in Colombia, 11% of the total population, so this will be a significant undertaking. The number of children and pregnant or breastfeeding women using ECEC services (excluding pre-primary) rose from 1.3 million to 1.9 million between 2010 and 2014 (MEN, 2015a). There were also approximately 197 264 children enrolled in pre-primary education and 800 052 in the transition year in 2014, though these numbers are likely to include children over 5 years old (MEN, 2015a). While participation in ECEC services is increasing, rates remain well below most OECD countries and many countries in Latin America. In 2013, only 48% of 3-year-olds and 75% of 4-year-olds were enrolled in early childhood education (ISCED 0) compared to the OECD average of 70% and 82%, respectively. Participation in the transition year has been compulsory for children aged 5 in Colombia since 1994. Although 79% of 5-year-olds were enrolled in early childhood education or primary education in 2013, only 63% were in the transition grade in 2012 and their number has shown little increase in the past decade (MEN, 2015b). In addition, 3.1% of children in the transition grade left the education system in 2013 which is similar to the annual dropout rate in primary (3.2%) and upper secondary education (3.1%) (MEN, 2015a).

With high rates of child poverty, government policy has prioritised the expansion of ECEC services for vulnerable and disadvantaged families. Yet access still remains out of reach for many poor children, especially in rural areas (Álvarez et al., forthcoming). Comprehensive ECEC reaches only two out of every five disadvantaged children in Colombia (Bernal, 2014; CIPI, 2013b). Overall participation rates for 3-5 year-olds are much higher for children from wealthier families than for children from disadvantaged groups. Children from more advantaged backgrounds (the first and second richest quintiles) had higher participation rates in ECEC from ages 0 to 5, 46% and 40% (2012), respectively. However, among the youngest children (0-1 year-olds), those from the bottom quintile were more likely to benefit from ECEC services – primarily the family modality – than children from higher income levels (Bernal, 2014) (Figure 2.2).

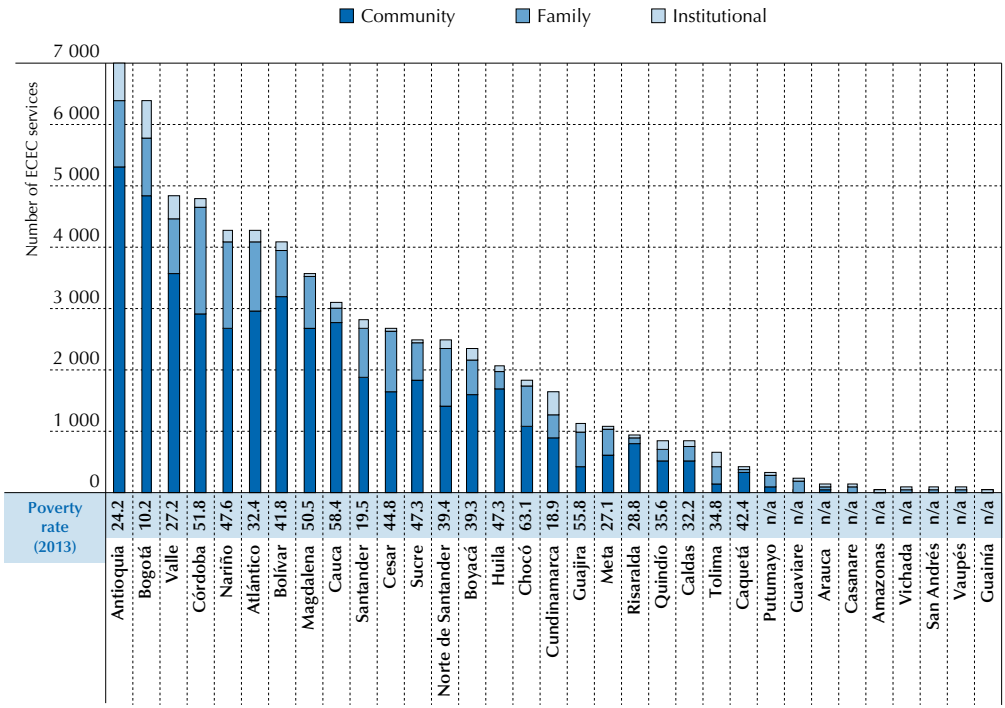
Figure 2.2. **Participation rates in ECEC, by socio-economic level (2012)**



Source: Bernal, R. (2014), "Diagnóstico y recomendaciones para la atención de calidad a la primera infancia en Colombia", *Cuadernos Fedesarrollo,* No. 51, Fedesarrollo, Bogotá, Colombia, www.fedesarrollo.org.co/wp-content/uploads/2014/04/debate_pres_2014_cuad51.pdf.

Child poverty rates are highest in rural areas, where around 89% of children aged up to six live in vulnerable socio-economic conditions (Bernal, 2014). Institutional and pre-primary school modalities are more limited in poor rural areas, leaving most families dependent on the family and community modalities for ECEC services. While providing valuable care, the latter offer less educational support for children who are likely to need particular help to successfully transition to school (Figure 2.3).

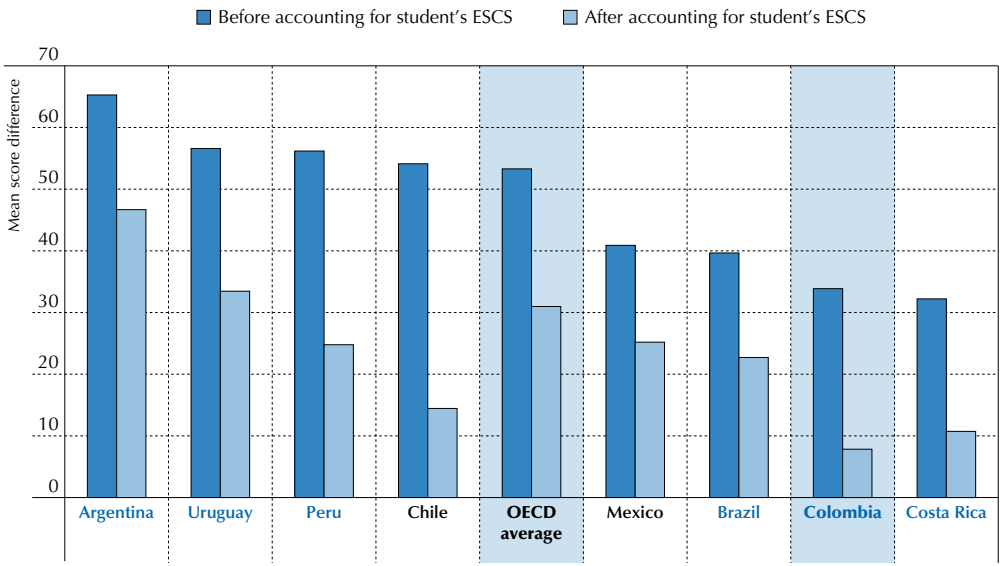
Figure 2.3. **ECEC services and poverty rates, by department (2013)**



Source: DANE (2015), "Pobreza y desigualdad", Departamento Administrativo Nacional de Estadistica (National Department of Statistics) website, www.dane.gov.co/index.php/estadisticas-sociales/pobreza; MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Participation in ECEC services in Colombia offers positive benefits for learning throughout life. Colombian children who attended ECEC for at least one year performed better than those who had not across all three domains measured by PISA in 2012 (literacy, mathematics and science). However, the correlation is less strong than in most OECD countries, suggesting that quality standards may be low in many ECEC institutions. The benefits of ECEC in Colombia also appear to be low compared to other Latin American countries and declining against selected countries (Figure 2.4). These findings from PISA are consistent with a study of ECEC across 15 Latin American countries, which found that ECEC participation in Colombia had the lowest impact on language and mathematics abilities in Grades 3 and 6 of all the countries sampled (UNESCO, 2010).

Figure 2.4. **Difference in mathematics performance, by attendance at pre-primary school (2012)**



Note: ESCS refers to the PISA index of economic, social and cultural status. Non-OECD countries are shown in blue.

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

Key policy issues

Colombia has made important strides in developing and expanding ECEC provision but the ECEC system remains in its infancy, and Colombia has a long way to go to reach the levels of coverage and quality seen in most OECD countries. In this journey, Colombia can draw on lessons learned from international experience to improve access and better support children's early development and learning. The potential benefits of such progress are significant, for children and families, for the performance of the education system, and for Colombia's wider social and economic development (OECD, 2012a). This chapter identifies three policy issues that Colombia will need focus on to achieve these rewards: 1) improving the educational benefits of ECEC; 2) ensuring universal access and successful transition to schooling; and 3) strengthening the whole system architecture for ECEC.

Policy issue 1: Improving the educational benefits of ECEC

Colombia's Zero to Forever strategy promotes a comprehensive approach to ECEC that addresses all aspects of child well-being from care, health and nutrition to education, play and socialisation. This is a positive feature of Colombia's ECEC system. Addressing the child as a whole person is central to their development and learning, and most OECD countries seek to ensure that ECEC services meet the full range of a child's physical, social, emotional and cognitive needs (OECD, 2012a). In practice, however, not all aspects of this comprehensive vision have received equal attention in Colombia. In particular, the educational dimension of ECEC appears significantly underdeveloped for children under six, with limited attention paid to developing the foundational cognitive, social and emotional skills that all children need to progress successfully in school and in life. A recent assessment of the Colombian institutional modality recorded practices of almost exclusively free play, with virtually no structured activities (Bernal et al., 2012). Site visits and interviews conducted by the review team confirmed the prevalence of such practices and the lack of a strong focus on child learning. The limited impact of ECEC on Colombia's PISA's scores compared with OECD and Latin American countries, suggests that the educational aspect of early childhood services could be enhanced. This section will look at three policy levers through which Colombia could improve the education benefits of early childhood education: 1) setting expectations for learning; 2) strengthening the skills of ECEC staff; and 3) supporting children's home learning environments. It pays special attention to ways of supporting the most disadvantaged children in Colombia, who stand to gain the most from an ECEC system that is more focused on learning.

Setting expectations for learning

Setting clear expectations for children's learning and development is important for several reasons. First, it provides an explicit expectation that children will develop a variety of skills during their pre-primary years. Second, it sets out the range and level of learning expected, which can form the basis of other policies, such as a curriculum that describes how children's learning can be developed to specified standards, staff training programmes, child monitoring tools and other resource materials. Third, clear learning expectations can offer valuable guidance to staff on the skills children should develop. This can be particularly valuable in guiding staff who have received little formal training. Fourth, as ECEC provision expands, quality and impact can sometimes decline (Duncan and Magnuson, 2013). Having clear expectations of children's learning outcomes promotes a more even level of quality across different providers and provides a basis for national ministries, as well as providers and ECEC staff, to monitor progress and ensure quality standards are not compromised as access increases.

Colombia is unusual compared to OECD countries in not having an early years' curriculum or learning standards. While the 2014 MEN guidelines for the family and institutional modalities provide general orientations for learning in these institutions, they focus primarily on minimum operational standards – such as requirements for premises and space, staff certification and child-staff ratios, and the pedagogical requirements of ECEC staff. They do not define the learning expectations for a child's social, emotional and cognitive development at different ages, or set out the subject areas ECEC settings are expected to teach. Nor do they provide direction on how these outcomes might be enabled and monitored by staff. The OECD review team saw no evidence of guidance being available for providers or staff on what children should be expected to know or do to transition successfully to school.

Most OECD countries, as well as most Latin American countries, have a framework in place that specifies what children should be learning and doing during ECEC and what the development goals should be for particular ages or for the end of pre-primary. In almost all OECD countries, a curriculum exists for the pre-primary years (usually from age three or four) which defines the subject areas that should be taught and usually provides pedagogical guidance for staff. An increasing number of countries are also formulating curricula for the earlier years (children under three), as awareness grows of the importance of these years in determining learning outcomes later in life (OECD, 2015). In Latin America, Chile, Brazil and Uruguay have a two-cycle ECEC curriculum for 0-3 year-olds and 3-6 year-olds (UNESCO, 2010).

Studies of international experience show that there is a wide range of approaches to early learning standards and ECEC curricula (OECD, 2012a, 2015). Some countries, notably many Nordic and central European ones, maintain a broad and holistic developmental focus from the earliest years through until school age. They place equal emphasis on a range of domains, including physical and motor development, socio-emotional development, personal and social skills, artistic and cultural development, and authentic (i.e. through lived situations) approaches to literacy, number and science thinking. Other countries, including France and many Anglophone countries, have adopted a more prescriptive approach, which focuses more closely on school-like learning areas, such as mathematical development, language and literacy skills, with children's learning in the centre and the range of experiences offered to them playing a more secondary role (OECD, 2006). Rather than making too sharp a contrast between the two approaches, it would be more accurate to see them as a continuum, where different learning areas and aspects of child development receive different levels of emphasis.

The approach that a country chooses should be based on the context and stage of ECEC development and the distinct needs of the young children that

ECEC is intended to serve. Factors to consider are the extent to which ECEC professionals are trained in pedagogy, the availability and use of resources, and children's existing development levels. When children face learning challenges, for example because of deprivation and weak home learning environments, and when staff are not highly skilled and experienced, a more prescriptive curriculum can provide better guidance and support to early learning than a more general approach (OECD, 2012a).

England (United Kingdom) offers an example of a well-defined curriculum for the early years with specifically defined subject areas and development goals, and learning expectations at the end of ECEC. The Early Years Foundation Stage (EYFS) covers children between birth and compulsory schooling age, and focuses on seven learning domains aimed at improving school readiness: communication and language; physical development; personal, social and emotional development; literacy; mathematics; understanding the world, and expressive arts and design (DfE, 2014; Anders, forthcoming). Specific goals are defined for each of the areas and children are assessed on progress at age two and before transitioning to compulsory schooling, resulting in an EYFS Profile for each child, which is passed on to the child's parents and primary school teachers (DfE, 2014).

There are also initiatives within Colombia that could help inform the development of national early learning standards and an ECEC curriculum. Some ETCs, such as Bogotá, have already developed a pre-primary curriculum which provides learning expectations for each stage of a child's development and dovetails with the school curriculum (Box 2.2). One valuable aspect of Bogotá's approach is the investment in teacher training to ensure staff are supported in implementing learning guidelines.

Building a skilled ECEC workforce

The quality of an ECEC system depends largely on the quality of its workforce. Initial education and training, as well as professional development, affect staff's knowledge and pedagogical skills, which in turn shape teaching practices and influence child outcomes (Sylva et al., 2004; OECD, 2006). Colombia has made significant efforts to increase the skills of its non pre-primary ECEC workforce, in particular the qualifications of local community mothers. Through the National Training Service (*Servicio Nacional de Aprendizaje,* SENA), almost 43 000 community mothers have been trained and certified as Professional Technicians in Comprehensive Care of Early Childhood (a short tertiary degree; see Chapter 5) while a select few (1 600) have benefited from subsidies to attain a bachelor's degree in early childhood education (MEN, 2015).

An additional 38 000 community mothers have benefited from short training courses. An evaluation of community mothers certified through SENA has shown an increase in the quality of care in community modalities and greater interaction with children and parents (MEN, 2015; Bernal, 2014). The introduction of ECEC staff qualification guidelines, as part of the technical guidelines produced by the MEN in 2014, is another positive step. The profiles provide greater clarity on the types of skills and professional standards that people working with children are required to meet (see MEN, 2014a). These are important steps. However, there is evidence that despite these efforts, the qualifications, training and working conditions of most ECEC staff in Colombia are below those of the ECEC workforce in OECD countries.

Box 2.2. **Introducing learning guidelines in Bogotá**

Bogotá has developed learning guidelines for initial education as part of its four-year development strategy, *Bogotá Humana* 2012-2016, and complete school day (*jornada completa*) improvement initiative. Bogotá aims to ensure that all public schools provide quality education and provide access to children from pre-kindergarten (*pre-jardín*) or the age of three, until Grade 12. Similar to the national full-day (*jornada única*) policy, the complete school day aims to increase the number of school hours all students attend to 40 hours per week including children attending ECEC provision in schools.

In an effort to improve education quality, Bogota has also introduced key objectives for 3-5 year-olds along with objectives for other educational levels (up to Grade 12). The curriculum guidelines for initial education are based on four key pillars: play, art, literature and exploration. This forms part of a child's learning cycle and is linked to the curriculum in basic education. Teacher development also forms part of the strategy.

Bogotá has also implemented ambitious goals to expand access to ECEC. Bogota's government aims to increase access and participation in ECEC to 90% of all 0-5 year-olds between 2012 and 2016, and to create an additional 270 000 new places for 0-5 year-olds. Bogotá has already expanded ECEC services to 225 430 children aged 0-5 years, up from 121 294 children in 2011 (Alcaldía de Bogotá, 2014).

Source: Educación Bogotá (2015), "Educación inicial", Educación Bogotá website, www.educacionbogota.edu.co/temas-estrategicos/curriculo-40-40/educacion-inicial (accessed 7 August 2015).

Improving the pedagogical skills of pre-primary and ECEC staff

System-wide information on the quality of ECEC and pre-primary staff is limited. However, a recent meta-review of the qualitative evaluations that have been done, suggests low levels of pedagogical skills across ECEC provision (Bernal, 2014). Based on a range of indicators used internationally, including indicators of process quality, the average rating of providers was 3,

out of a maximum of 7.[3] The institutional modality performed slightly better overall, but not significantly so, and was viewed as less effective than the community modality on indicators such as adult-child interactions, the use of language and the use of education-oriented activities. This evidence of relatively weak pedagogical skills was supported by observations during the review visit. During interviews, staff in ECEC modalities described predominantly child-initiated models of pedagogy, without reference to competency development, scaffolding or school readiness. While focused on child well-being, staff seemed to lack preparation on how to help children draw meaning from their experiences and facilitate the development of concepts and skills. Interviews with pre-primary staff in schools suggested that they had better education and training than ECEC staff, yet faced many of the same challenges as teachers, such as limited pedagogical knowledge and lack of access to professional development and feedback.

International evidence points to the characteristics staff need to have in order to foster a high-quality pedagogic environment that enables meaningful interactions with children and improves child outcomes. These include a good understanding of child development and learning, the ability to develop a child's perspectives and be responsive to their needs and development, leadership and problem-solving skills, the ability to develop lesson plans, and a very good vocabulary and the ability to elicit children's ideas (OECD, 2012b). Whatever the curriculum approach chosen, and the extent to which the child or the teacher is encouraged to lead activities, pedagogical policies in OECD countries agree in recognising the need for highly qualified staff who are capable of guiding, facilitating and structuring interactions so that children develop key concepts and abilities (Anders, forthcoming).

In Colombia, where a range of institutions provide training to ECEC staff, a pedagogical framework and common basic training curriculum, aligned with an early years' curriculum and learning expectations set out for children, could help to improve the pedagogical skills of ECEC staff and ensure more equal standards across institutions. The guidelines introduced by the MEN in 2014 are a valuable starting point, but they do not go far enough in defining the content and goals of early learning and the type of activities and practices by which they can be achieved. Without such guidance, staff, especially if they are inexperienced and untrained, may revert to a *laissez-faire* pedagogical approach which fails to develop the cognitive and non-cognitive competencies children need to have a strong start in schooling and life.

Strengthening the pedagogical skills of pre-primary and ECEC staff, especially those in the ICBF modalities, will also require more professional development opportunities, an effective appraisal system and the right incentives. Childcare staff has limited access to professional development programmes, even though international evidence points to the importance of continuous development and training in enhancing the quality of ECEC

services and outcomes (OECD, 2012a). In addition, there is no formal appraisal system, meaning that feedback on staff performance depends on the capacity of individual institutional co-ordinators. Well-designed systems for assessing staff performance can contribute to identifying training needs and in turn strengthen staff quality (OECD, 2015). A recent survey of OECD countries highlights self-evaluation as an important tool for improving the skills of ECEC staff and encouraging greater reflection and awareness of practice and pedagogical processes (OECD, 2015). Both the ICBF and the MEN have plans to improve staff evaluation, but such policies at the school level have tended to serve management rather than improvement purposes (MEN, 2014a).

Raising the status of the ECEC workforce and strengthening leadership

The significant difference in wages, entitlements and status between childcare providers and pre-primary teachers runs counter to the general trend across OECD countries of bringing the ECEC workforce into the mainstream teaching profession. This usually means ensuring that all ECEC staff with lead responsibility for children in their pre-primary years have at least a post-secondary degree and training on par with primary school teachers (OECD, 2012b). Such a move is seen not only as a way to raise the quality and status of the ECEC workforce, but also to support the transition of children from ECEC into school (see Policy Issue 2). Colombia has raised the training requirements of ECEC teachers in the institutional modality to a *normalista* degree from a Higher Teaching School (*Escuela Normal Superior*, ENS), a technological degree in education or an undergraduate degree in visual arts, music, linguistics or language, in addition to 1-2 years of on-the-job experience in the ECEC sector. This is different from staff in ICBF modalities who need a professional technical degree (the lowest level of tertiary qualification in Colombia, see Chapter 5) and 5 years of on-the-job ECEC experience (MEN, 2014a, 2015). Working conditions remain very different, with considerable variations in pay, career progression, incentives and benefits across providers, modalities and regions. Achieving greater equivalence in working conditions has high cost implications, and it will be important to avoid creating barriers to the expansion of ECEC services. However, it should be a medium-term objective for Colombia to move towards more equal working conditions if it is to raise the status and quality of the ECEC workforce and ensure children of the same age receive the same standard of service.

Building a skilled workforce also requires strong leadership capacity on the part of ECEC co-ordinators. The latter are key to enhancing staff quality as well as motivating and encouraging ECEC staff (OECD, 2012a). Colombia has taken positive steps to strengthen ECEC leadership. As stated in the technical guidelines introduced in 2014, co-ordinators of ECEC services must have a graduate degree in social or human sciences,

education or administration in addition to one year of professional experience. The expansion of the institutional modality also appears to have brought better co-ordination and supervision of staff. Ensuring leaders and managers of ECEC services have the necessary qualifications and professional development opportunities to not only manage their institutions but also be pedagogical leaders and support their staff will be an important factor in raising the quality of ECEC services (OECD, 2012a).

Lifting standards while expanding the workforce

With ambitious coverage targets, Colombia will need to find new ways to improve staff quality while increasing the number of ECEC workers and teachers. Colombia's strategy of training community mothers has worked effectively to expand care up to now, but is unlikely to meet the needs of a system that should prepare children for learning and school. One untapped opportunity to attract additional staff into ECEC is the current oversupply of qualified primary teachers, some of whom might be suitable to work in ECEC. There seem to be no deliberate efforts to channel this unused resource into the ECEC sector. Not only could primary school teachers contribute to the supply of ECEC staff, but, with the right training, they could also enhance staff quality. England (United Kingdom) is currently placing more school teachers in ECEC settings as a strategy to increase the number of pedagogical staff with high formal qualifications (Anders, forthcoming). Other options to increase skills and attract additional staff include scholarships or other forms of financial assistance for prospective staff; providing more flexible training models, in particular in rural areas, such as the ability to combine study and work and participate in intensive block courses or distance programmes; and retraining for those with relevant experience (OECD, 2012a).

Supporting children's home learning environment

Parents are essential partners in providing children a strong start in learning; they have more impact on a child's early education than any other single influence. They can significantly enhance their children's development of both socio-emotional and cognitive skills by providing a stimulating home learning environment. Parents also influence children's early development through their decisions on whether and at what age to enrol their children in ECEC and, where more than one service is available, the type of service their child attends.

In Colombia, many parents are likely to require additional support to stimulate learning in the home and make the right choices about their child's care and education. Research indicates that parents with limited education and from low socio-economic levels tend to engage their children

less frequently in learning activities (OECD, 2012a). A significant number of mothers in Colombian households have low literacy and poor education levels. In 2013, a survey of households across the country found that 36% of mothers with children under the age of five in both rural and urban areas only had primary school education (Bernal, 2014). While the educational qualifications of a child's mother is the best predictor of a child's later educational outcomes, there is still much that parents can do, even with limited education themselves, to stimulate their children's early learning and development (Sylva et al., 2004). Parents with poor literacy and education levels can be helped to provide positive home learning environments for their children, for example through the provision of books and other resources. Such interventions have been found to be highly effective in terms of boosting learning outcomes and social progress (Lazzari and Vandenbroeck, 2012). Enabling poor families to give their children a fair chance in education is one of the most powerful tools for breaking the cycle of intergenerational poverty.

Colombia's family modality of ECEC has shown itself to be an effective means of reaching families, particularly disadvantaged families, and helping them understand the importance of their child's early learning and what they can do to support it. Research indicates that home visits, which form an important part of the family modality, are key to empowering parents (OECD, 2012a). The family modality also focuses on children at an early age, which enhances the likely positive impact this intervention can have as this is the most important time for brain development. Evidence shows that working with parents is particularly effective when children are very young. For example, an analysis of experimental, longitudinal programmes in the United States found that projects that worked with infants from six weeks had more positive impacts on outcomes for those children during schooling and later in adulthood than programmes targeting children at three and four years of age (Bartik, 2014). Research in Colombia has found that children who received support through the family modality for 18 months have better cognitive and language development than children who did not. A key reason for these gains is the improvements made to their home learning environments (Attanasio et al., 2012). Improving school readiness by expanding the family modality to reach all disadvantaged areas, with well-trained and qualified staff who can effectively engage families and children in learning up to the transition year, should be a policy priority in Colombia.

The effectiveness of other modalities in improving the home learning environment and parental support for children's education is less clear. Parents' engagement in the institutional modality of ECEC appears to be variable and, in some cases, limited to feedback via an annual satisfaction survey. While some centres involve parents in activities, this is not

systematic, and there is no guidance or information for ECEC staff or parents on the types, range and frequency of home-based activities that support children's learning development. The ECEC guidelines introduced in 2014 provide some information on this but they remain very general, and are unlikely to lead to changes in parental engagement and improved home learning environments unless accompanied by additional staff training. OECD countries have taken a number of steps to strengthen ties between parents and ECEC services. In Spain, for example, pre-schools organise meetings for parents to inform them about general pre-school issues and learn about early child development and the pre-school 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, 2012a).

To encourage ECEC staff to engage more with parents, ECEC practitioners' training programmes should include information on the benefits of parental and community involvement. Such programmes can also include examples of techniques for reaching different types of families, and of ways to improve the quality of communication between families and ECEC staff (Litjens and Taguma, 2010). For instance, initial education programmes in Portugal train ECEC staff on how to encourage and improve communication with parents. Further training through continuing professional development once staff are employed within a centre enhances parental engagement and communication skills (OECD, 2012a).

Policy issue 2: Ensuring universal access and successful transition to school

Colombia has made significant progress in expanding access to early childhood services. Since 2010, half a million more young children have benefited from formal care and support. However, the country has a long way to go before its ECEC participation rates match those of OECD countries. Enrolment among disadvantaged children is particularly low. Children with development arrears at six years-old face enormous challenges progressing well at school. This section considers policy options to increase participation of children in early education so that all children can be given an equal chance to succeed. It addresses the importance of meeting the government's coverage targets, in particular of expanding access for disadvantaged children. It highlights the need to ensure that all Colombian children transition to school at the age of five and the importance of strengthening continuities between early childhood services and schooling to ensure that the transition year functions as an effective bridge.

Ensuring universal access to ECEC services for disadvantaged children

Most OECD countries promote universal access to early childhood services for children from the age of three or four. Universal access does not necessarily entail achieving full coverage, as need and demand vary according to family circumstances. However, as governments have improved access, and parental awareness of the importance ECEC has increased, enrolment rates have risen considerably. In most OECD countries with a well-established tradition of ECEC and either free or low-cost access to ECEC, such as France, Germany, Norway and Sweden, over 90% of 3-year-olds are enrolled in early childhood programmes (OECD, 2014).

Choosing the right modality to expand access to those who need it most

In Colombia, despite considerable progress in expanding access, only about half of 3-year-olds and three-quarters of 4-year-olds benefit from ECEC services. Children from disadvantaged families and in rural areas have far lower participation rates and face greater challenges to access ECEC services (Bernal, 2014; MEN, 2015a). The government target is to have 2 million 3-5 year-olds and 100% of children living in extreme poverty [4] enrolled in an ECEC service by 2018. In a country where 60% of children live in poverty and malnutrition rates are high, a targeted approach, focusing on children from the poorest families, appears an equitable and cost-effective strategy for moving towards universal access.

A central pillar of the government's expansion strategy is to roll out the institutional modality and raising community-based care to institutional standards. An additional option that Colombia might consider would be to further expand the family modality, in particular in rural parts of the country where the majority of the most disadvantaged children live. Geographical and socio-cultural factors mean that some form of community or family-based care will be important for reaching children in rural areas and from minority groups and displaced families. The institutional modality might be well adapted to urban areas, but has shown itself to be less successful than the family modality in engaging with parents and communities and building the understanding and trust that is important to increase participation among marginalised groups. The institutional modality also costs four times more than community-based centres, while only offering minimal improvements in the quality of care, making family and community-based care a more cost-effective solution, especially for rural departments with limited resources (Bernal, 2014). The family modality in Colombia currently focuses on mothers and children from birth to two, but could be further strengthened to give more support to children's learning (see Policy Issue 1) and expanded to provide support to

children until they enter the transition grade. An important strength of the family modality is that it enables positive parental engagement in ECEC, which contributes to ensuring young children receive consistent support across ECEC settings and the home and can facilitate a smooth transition to school.

Experience from OECD countries shows how family-based support can be an effective means to support child development, and might provide insights on how Colombia can improve further the family modality. The Parent-Child Home Programme in the United States, for example, is an early childhood literacy, parenting and school readiness programme, which supports disadvantaged families with children between the ages of 16 months to 4 years (OECD, 2012a). The programme uses early literacy specialists who are hired from the community they serve, thus sharing both the language and culture of the families. The early literacy specialist visits a family twice weekly for two years during which time the specialist models reading, conversation and play activities designed to stimulate parent-child interaction and develop the child's early language. The specialist also connects the families to other community resources, such as health and medical facilities and other education programmes, and at the end assists families in enrolling their child in a centre-based, pre-school programme.

Using outreach and incentives to encourage participation

Additional financial and social outreach measures could be considered to encourage participation among marginalised groups. The More Families in Action programme, for example, could be used to encourage parents to access early education services (see Chapters 1 and 3). In those regions where there is enough capacity, attendance at an ECEC service from a specific age could be made a condition for the cash transfer, as is currently the case in primary and secondary education. Under the PND, a pilot is currently under discussion. Evidence from Chile's conditional cash transfer programme, Solidarity in Chile (*Chile Solidario*), which combines cash assistance with psycho-social support for families, indicated an increase in the proportion of children attending pre-school (Vegas and Santibáñez, 2010). Box 2.3 describes strategies Ireland has used to encourage harder-to-reach families to participate in ECEC.

To increase access for 3 and 4 year-olds, Colombia could also explore ways to make better use of its school premises. As the country expands school construction in conjunction with the full school day (*jornada única*), there is an opportunity to ensure provision of pre-primary spaces for 3-5 year-olds, as Bogotá is currently doing with its complete school day programme (*jornada completa*). Expanding access to services on school property could be a cost-efficient option and would also help to ensure timely

entry into the transition year. This review has already recommended targeting the roll-out of the full school day programme in disadvantaged communities (see Chapter 3).

Box 2.3. **Explaining the importance of ECEC to families**

Parents are partners in the efforts to improve access to and quality in early childhood education and care (ECEC). Countries have used different strategies to explain the benefits of ECEC and urge families to enrol their children in ECEC, by such means as universal and targeted media campaigns and enlisting the support of community leaders. In Ireland, for example, partnerships between ECEC programmes and community services have been found to be effective in approaching and supporting harder-to-reach families, such as Roma and travelling families. Specialists offer those families tailored services designed with respect to their cultural context, which improve children's skills as well as those of parents. The development of distance learning materials in collaboration with community members and consultants specialised in travelling education has enhanced children's learning experiences in literacy and maths.

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

Achieving a successful transition to schooling

Starting school at the right age, with appropriate support and adequate preparation, is important for a strong, positive start in education. Colombia, like many OECD countries, has established a transition year, compulsory for all 5-year-olds, to help make a smooth entry into school life. However, about one in three 5-year-olds were not enrolled in the transition year (Grade 0) in 2012 (MEN, 2015b). A large number of 5 and 6 year-olds are instead in community or institutional modalities, which are less well equipped to prepare them to start school. Moreover, there are few mechanisms to facilitate transition from early childhood services into the transition year and through into schooling. Colombia will need to address these gaps if it is to provide its children with a successful transition into school and break the pattern of late enrolment and poor preparedness that is both detrimental to learning and inefficient for the system.

Raising awareness of the importance of the transition year

A range of overlapping factors influence low enrolment in the transition year in school. One is lack of parental awareness. Pre-primary education has been mandatory for 5-year-olds since 1994 so the expectation of formal education starting at this age should be well established. However, there is evidence that there are low levels of parental understanding of the requirement, and importance, of enrolling children in the transition year,

particularly in rural areas (OAS, 2010; Álvarez et al., forthcoming). There will need to be deliberate, co-ordinated efforts at the central, local and school level to communicate that this is mandatory and to improve parents' understanding of the importance of timely entry to school.

There is also need to raise awareness of the importance of the transition year among local secretaries of education and education administrators, who seem to lack appreciation of the importance of enrolment at age five and where policy support for ECEC is weak (see Policy Issue 3). If education officials do not see the value of improving participation rates in the transition grade, they are unlikely to take steps to expand provision and make services more attractive to families with young children. National and local mobilisation around the full school day offers an opportunity to reaffirm the message that the transition year is the starting point for compulsory education and a successful school career.

Meeting families' needs for care and education

Another factor in low transition year enrolment rates is that ECEC provision in schools does not meet families' needs for out-of-school care and school meals, especially in the majority of schools that still provide a multi-shift day (Álvarez et al., forthcoming). This seems to be an important factor in the decision many parents make to keep their children in services provided by the ICBF. On-site visits indicated that while many ECEC providers encourage children to attend school once the child reaches five, many parents prefer to keep their children in ECEC settings because schools offer restricted hours and fewer meals.

Addressing the parallel provision of public services for 5 and 6 year-olds will be essential if all children in Colombia are to receive equal and effective preparation for school. The decision of parents to place children in non-school facilities creates several challenges for a child's future learning and progress in school. Staff in ECEC modalities appear, on average, to be less well qualified than transition year teachers, with different training, and being further removed from the school environment, less well prepared to support a child's transition to school. Steps to discourage and eventually prevent children over five from staying in facilities outside school should be taken gradually to avoid unfairly affecting children from families who have no real choice in terms of provision for their 5 and 6 year-olds. It will be important not only to ensure adequate places in schools, but also to address parental concerns over school meals and out-of-school provision. Governments in all OECD countries have sought to address these widespread concerns in an attempt to both increase child enrolment in early education and encourage female participation in the labour market. In France, for example, pre-schools (*écoles maternelles*) meet demand

for out-of-school time provision through a network of accredited support services around the school run by non-profit associations, municipalities and parents' associations. French children can also go to the homes of accredited or informal family day carers for after-school care (OECD, 2006).

Improving co-ordination between different modalities

The existence of split provision also creates challenges for supporting children as they make the transition from early childhood services into schooling. Transitions for young children are critical occasions: they can be a stimulus to growth and development, but if too abrupt and handled without care, they carry – particularly for very young children – the risk of regression and failure (OECD, 2006). This is a particular concern in Colombia, since providers' practices and expectations differ widely. There will need to be much better co-operation between ICBF services and the school system at every level, in particular locally, to ensure not only that all children enrol in the transition year in schools but that this is a positive experience. Children in ICBF-run institutions need better preparation for entry into the transition year and Grade 1. Schools, for their part, need guidance on how to provide a supportive setting for children coming from other facilities. Some ECEC staff we spoke with in CDIs detailed how they connected with schools by having children visit their future school, but there are no mechanisms to ensure that this happens systematically across all schools and ICBF facilities.

The experience of OECD countries points to several measures that can help to strengthen institutional co-ordination and improve the transition to school (OECD, 2012a). Effective tools for ensuring coherence across providers include the existence of a unified curriculum across the ECEC age range and continuity in training and pedagogical methods across ECEC staff and early school teachers. In Denmark, for example, children under the age of three attend family day care and transition to centre-based care, as they get older. The potential for transition difficulties is diminished by the close training links between the two facilities. Municipal family day carers will often attend weekly or monthly training sessions at the early childhood centre, with the children in their care (OECD, 2006). Other countries have strengthened institutional co-operation and improved transition by having providers share the same building or be placed in close proximity. Transition could be improved in Colombia by building new ECEC services within or near to schools, as proposed above, and including them within school clusters under the co-ordination of the school principal. Such proximity would help staff to work together and share training opportunities so they can jointly support child transition.

A shared information system would facilitate the transfer of knowledge between ECEC staff and school teachers and enable them to better understand and support the needs of children as they prepare for, start and progress through the transition year into school. Colombia does not currently have any systematic means for schools to assess the relative needs of children when they start school. Nor does the MEN have a way to monitor school readiness over time. This means that the needs of individual children may be overlooked and the common needs across cohorts of children and across different services are unknown. The recent Child to Child Monitoring introduced by the MEN might be a tool which can be exploited to ensure the right data are being collected. It seeks to consolidate information about each child from all care providers to create a monitoring process that could enable picking up early warning signs of any problems. Some countries have developed useful tools to provide information on how young children are progressing, such as Australia (Box 2.4). The existence of such tools can help in creating a common understanding and language across different providers on children's development, to understand how transition affects children, and to identify areas where additional support is needed.

Box 2.4. **Supporting transition to school through better child information**

Australia uses a national adaptation of the Early Development Instrument (EDI) which is a checklist of children's development completed by teachers. The EDI was originally developed in Ontario, Canada and is a population measure of children's development as they enter school. The results are aggregated to the group level (school, neighbourhood, city) to provide a population-based measure of children's development. The data are not reported at the child or class level, however, which means they are not used as a diagnostic tool for individual children. The results of the EDI allow local authorities, communities and providers to assess how local children are doing relative to other children in their community and/or across the country. The checklist measures five key domains of early childhood development: physical health and well-being, social competence, emotional maturity, language and cognitive skills, and communication skills and general knowledge (OECD, 2015).

Policy issue 3: Strengthening the whole system architecture for ECEC

Colombia has made important progress in establishing a national framework to steer ECEC policy and implementation. As the From Zero to Forever strategy becomes law, Colombia has the opportunity to further strengthen this governance architecture to support greater improvement

in early childhood services. ECEC in Colombia is likely to improve more quickly and in a more coherent manner if there is clarity over agencies' responsibilities. Ensuring a stronger, clearer role for the MEN in directing ECEC provision will be important to establish greater consistency across services, enhance the educational component of early childhood care and help children in their transition into schooling. Driving quantitative and qualitative improvements in ECEC requires adequate resources and capacity. Strong quality assurance mechanisms will also be important to guarantee standards and effective implementation the whole ECEC system, including across the large number of private providers. This section addresses these system-level issues and looks at two sets of policy levers Colombia can use to improve ECEC: ensuring adequate governance and funding, and improving the monitoring and accountability system.

Ensuring effective governance and funding for improvement

An effective governance structure and funding system is important to steer ECEC policies towards improvement. In most countries, early childhood services tend to suffer from fragmentation across different agencies and departments, and mobilising sufficient public investment is often a challenge for a sector that is outside the compulsory school system and lacks strong political support (OECD, 2012a). In Colombia, these challenges are compounded by the ways in which responsibilities are split, not just between childcare for younger children and pre-primary education for older ones, but between two systems offering very different services in the pre-school years. Implementing reform in ECEC is further complicated by the dynamics of a decentralised system, where local capacity is often weak, political commitment to ECEC uneven, and financial resources frequently lacking. Clear national stewardship, stronger local engagement, and more substantial and equitable financing will be essential to drive change in ECEC in Colombia.

Co-ordination and leadership

As ECEC policy becomes established in law, it will be important for Colombia to clarify the roles of different actors and establish a strong co-ordinating body. The creation of the CIPI was a significant step towards creating a more integrated approach to ECEC. It has also helped to elevate the political importance attached to the issue. However, there is a lack of clarity over which agency is responsible for the overall performance of the sector, in terms of coverage, quality and impact. In practice, while the MEN is in charge of ECEC policies and guidelines, the ICBF is responsible for implementation and does not report to the MEN for this delivery. This creates

a fragmented system which leads to inequities in provision and quality and varying goals.

OECD countries address governance in different ways, but most have appointed one lead ministry to ensure consistency and continuity in services, even if other actors continue to play an important role. In the majority of cases, this responsibility is located within the education ministry. Education ministries have a strong claim to this role as their main focus is children and learning, and they already have many of the subsystems necessary for a quality system – a training authority, an evaluation body, statistical and monitoring units etc. Various analyses show that bringing policy making under one agency can have several advantages: more coherent policy, more effective investment, improved public management of services, and, ultimately, better and more consistent support for young children (OECD, 2006). Although structural arrangements are not fundamental drivers of participation rates or the educational or other benefits of ECEC, Colombia is likely to make better progress if there is greater clarity on which agency is responsible for ensuring national ECEC objectives are met (Bernal, 2014).

Colombia needs ECEC to be a priority of every regional department and municipality in Colombia. Delegating responsibilities to local stakeholders can be useful if they have the capacity to make decisions based on the needs of their communities and families and to allocate their resources efficiently to support children (OECD, 2006). In those departments that have taken on responsibility for ECEC, such as Bogotá and Medellín, the positive impact on provision is evident (Box 2.5). However, local governments in Colombia often lack the human and financial capacity to provide access to ECEC services (UNICEF, 2014). The CIPI offers departments and municipalities tools to organise ECEC services within their jurisdictions, and can thus support local authorities to manage ECEC better in their regions. The Comprehensive Care Plan (*Ruta Integral de Atención*) is one such instrument that helps local governments structure services according to the needs of children at each developmental stage, and to map service delivery and identify gaps (MEN, 2015a). In addition, local governments also need to better understand the benefits of high-quality ECEC. Some local secretaries of education and staff that the review team met were absorbed with operational issues such as physical capacity and staffing, and did not appear to be focused on child development outcomes and how to improve them. The MEN can start this process by ensuring the secretaries of education are well-informed about the impacts of early learning and the gains that could be achieved across schooling if coverage rates and quality improve in the early years. The workshops held with secretaries of education on the Synthetic

Education Quality Index (*Índice Sintético de la Calidad Educativa*, ISCE), a multidimensional index of school quality (see Chapter 3), are good examples of how national bodies can engage with local governments. Collaboration across local governments to share good practices can also be a good way to catalyse action.

Box 2.5. **Getting a good start in Medellín**

The government of Medellín has played a key role in the development of the national ECEC policy, including the From Zero to Forever strategy. In part its participation in national policy has been due to the 2004 Good Start (*Buen Comienzo*), which was driven by the Mayor's Office who aimed to provide nutritional services to children not served by the ICBF services. In 2008, the programme expanded to support children from before birth until they started primary school. The Good Start programme has a number of positive characteristics, such as operating 5 to 8 hours a day, providing lunch and two snacks a day, engaging parents from pregnancy to early childhood through monthly meetings, one of the lowest child- to-staff ratio among ECEC programmes (3.7 children per adult for ages 0 to 2 and 6.2 for ages 2 to 6), and specialised childcare facilities that meet all basic equipment and safety needs. The programme reports that it serves 100% of its target population, which are disadvantaged children from vulnerable and low-income families. In 2014, almost 80 000 children and pregnant women were covered by the programme.

Sources: Araujo, M.C., F. López-Boo and J. M. Puyana (2013), *Overview of Early Childhood Development Services in Latin America and the Caribbean,* Social Protection and Health Division, Inter-American Development Bank, https://publications.iadb.org/bitstream/handle/11319/3617/BID_Panorama_ENG%20(Web).pdf?sequence=2; Cardona- Sosa, L. and L. Morales (2015), "Efectos laborales de los servicios de cuidado infantil: Evidencia del programa Buen Comienzo", *Borradores de Economia,* No. 882, Banco de la Republica.

Investing effectively in the early years

Steering the ECEC system towards higher performance also requires adequate and efficient funding. It will be difficult for Colombia to reach its coverage targets without both a significant increase in public investment in ECEC and an improvement in how public funds are allocated and managed. Colombia spends a lower proportion of its GDP on ECEC than the OECD average, despite having a much larger share of children under the age of five and much higher rates of child poverty and adult illiteracy. Over half of these resources come from private sources; public investment is just 0.3% of GDP, compared to 0.6% among OECD countries. For the majority of Colombian families who cannot afford private care, increased public investment will be decisive in expanding their access to early childhood services. Evidence suggests that direct public funding of ECEC services can also bring more

effective governance, better training for education staff and higher quality of provision (OECD, 2006).

At present, most public funding for ECEC comes from the Income Tax for Equality (CREE) and is channelled through the ICBF. The CREE system has helped to mobilise additional resources for public services and created a more sustainable source of funding for ECEC. However, the funds available through the CREE remain inadequate to meet the high costs of additional infrastructure and staff needed to expand access with quality (Bernal, 2014). If Colombia is to strengthen the education benefits of ECEC, ensure universal enrolment in the transition year, and improve the quality of training ECEC staff receive, then the proportion of the education budget allocated to early years' provision should be increased.

There is also scope for more proactive efforts to tap new sources of funding. Local government spending on education is low. The MEN could do more to incentivise secretaries of education to invest in ECEC, for example by tying access to funds to the full school day programme to a commitment to increasing pre-kindergarten and kindergarten provision in schools. Many OECD countries have responded to the need for more public funding through government partnerships with the private sector and philanthropic organisations (OECD, 2012a). Colombia has some experience with promoting public-private partnerships for ECEC, although these are not widespread. One positive example is the aeioTU model, which was developed by the Carulla Foundation and is contracted by the ICBF as a service provider to improve coverage and raise the quality of ECEC services in Colombia. AeioTU subsidises ECEC services for disadvantaged Colombian children (SISBEN 1 and 2) although children from wealthier families also enrol in these services. The model has helped not only to expand access to services for more than 6 000 children but also drive improvements in the quality of education and care (Bernal, 2014). Local governments in Colombia should be given more support, and encouragement, to expand such partnerships for ECEC.

There is also scope for greater efficiency in the use of resources. The existence of multiple funding sources and providers can create additional administrative costs and prevent economies of scale. In Medellín, the mayor's office has assumed overall management of ECEC resources, pooling ICBF funds and local resources in an attempt to create efficiencies and improve provision. Improving efficiency also requires close examination of the chosen modality for provision. As discussed above, the considerably higher costs of the institutional modality currently being promoted do not seem to deliver proportionate quality returns over the other modalities, such as the community and family modalities (Bernal, 2014). More attention should be given to building on the strengths of the latter in the planned expansion.

Improving the monitoring and accountability system

Monitoring and evaluation are important pillars of a quality ECEC system. Assessing performance at the system-wide and institutional level is important for both improvement and accountability. Reliable data and monitoring provide policy makers with evidence for sound policy design and implementation, and parents with information on the quality of care their children receive and how they are progressing (Levitt, Janta and Wegrich, 2008). Without effective monitoring, poor provision can continue unnoticed and there is less incentive to increase quality. The lack of effective monitoring and evaluation also limits the means of spreading information on best practice or effectiveness across the sector. OECD countries are increasingly developing a range of quality monitoring and evaluation tools for ECEC systems (OECD, 2015). Evidence shows that strong quality assurance systems tend to have most or all of the following components: common standards across different types of provision, independent monitoring; transparency, consequences for poor delivery, a focus on the children and their development, capacity-building across the system, and input from parents (OECD, 2015*)*.

Colombia has some practices and tools that support monitoring and accountability, but no robust quality assurance system. Under the From Zero to Forever strategy, Colombia gave the MEN responsibility for monitoring and quality assurance. The latter has set quality guidelines that have been widely promulgated and these provide a strong basis for a common framework. However, they only cover the family and institutional modalities; there are, as yet, no clear guidelines for the community modalities, which constitute the majority of public provision, nor for private providers, which cater for the majority of children enrolled in ECEC services. Moreover, while the MEN provides guidelines to ICBF facilities, in practice the ICBF maintains responsibility for the quality of its services, which it has limited capacity to monitor. Pre-primary schools are subject to their own guidelines and are monitored through the school system, where capacity for quality assurance is also weak (see Chapter 3). This fragmentation and lack of clear guidelines in many areas contributes to considerable differences in the quality of services children receive.

Comprehensive and well-aligned standards and regulations will be important for ensuring more consistent quality in ECEC provision in Colombia, as will a strong, independent authority with the capacity to monitor adherence to these standards across all ECEC settings. Among OECD countries, monitoring of service quality is most frequently carried out by an inspection agency associated with the (usually national) government. In some countries with more decentralised systems, and where local government capacity is strong, local authorities may be responsible for monitoring.

Monitoring ranges across factors such as compliance with safety regulations, child-staff ratios, staff qualifications and training, the quality of the learning environments, and parental involvement. While in Colombia, as in many Latin American countries, private providers are currently not subject to any form of monitoring, there is a trend across OECD countries towards integrated approaches, holding all private and public providers to the same standards (Araujo, López-Boo and Puyana, 2013; OECD, 2015).

Monitoring is most effective when support is provided to make the required improvements, and there are consequences if delivery remains poor, such as a repeated inspections or temporary or permanent closure. Many countries make inspection reports available to the public as well as to ECEC managers and staff (OECD, 2015). In the Czech Republic, for example, evaluation reports are made public that highlight both positive and negative aspects within a setting, and include proposed strategies for improvement. In New Zealand, the Education Review Office draws on the results of individual reports to produce national evaluation reports, which are also made public. As well as raising quality, independent and transparent monitoring can help increase social and parental trust in ECEC services and encourage wider participation.

Effective monitoring and accountability demand systematic data collection and strong information systems. Colombia monitors the overall number of children attending ECEC by region, and is able to identify participation trends over time. However, it cannot easily disaggregate participation rates by children's age, gender or socio-economic status. As participation rates rise, more specific information will be needed to target policies and resources effectively. In order to efficiently plan for the expansion of ECEC infrastructure, Colombia will need more reliable data on supply and demand. This is a challenge for many countries, as existing information systems, such as household surveys, were not set up to deliver the kind of data needed. Colombia does have existing information in its system which it could make better use of for planning purposes. For example, the waiting lists held by centres are not currently collated, either nationally or regionally. While waiting lists are an imperfect measure of the exact amount of unmet demand, they do provide evidence that such demand exists and could help to indicate where extra supply is needed, and conversely where parents may need more information on the benefits of ECEC. The fragmentation of providers and split governance between pre-primary and ICBF systems makes the aggregation of data a challenge at all levels. Colombia has introduced a number of databases in recent years to support system-wide monitoring, such as the ICBF's *Cuéntame,* the MEN's SIPI and most recently the CIPI's Unique System of Children Information (*Sistema Único de Información de la Niñez,* SUIN). However, evidence suggests they

are incomplete, poorly linked and difficult to navigate, especially for the general public (Piñeros at al., 2013; Bernal, 2014).

Information on development and learning outcomes is important to ensure every child is progressing well and that any special needs are identified in a timely fashion. Monitoring children's progress regularly against expected outcomes is common in many OECD countries. Young children at a high risk of educational disadvantage seem to benefit the most from individualised monitoring of their progress in different learning areas, as this enables more differentiated support from staff (Gettinger and Stoiber, 2012). To provide information on how well services are meeting children's needs, OECD countries use a range of mechanisms. In Mexico, for example, children's development and progress is monitored using the Ages and Stages Questionnaire. This is a screening tool for children aged from one to five, measuring their communication skills, gross and fine motor skills, problem solving, and social skills. While this tool is used in other countries, it has been translated and adapted specifically for use in Mexico (OECD, 2015). Such a tool could be particularly helpful to Colombia as the country seeks to improve the educational component of ECEC. As in other cases, the capacity of institutional actors, such as ICBF co-ordinators and ECEC staff, will be key in implementing this type of strategy.

Parental involvement is an essential component of an effective monitoring and accountability system. Parental feedback on ECEC services is important not only for quality assurance, but also to identify the factors that influence parental decisions on whether to use ECEC services and address the obstacles to participation. Many OECD countries collect information from parents on a range of variables, such as ease of access, convenience of opening hours, efficient administration and distribution of places, sensitivity to family background (socio-economic, cultural, religious, linguistic, etc.), parents' perception of the happiness and well-being of children, the provision of meals and normal healthcare to children, and relationships with teachers (OECD, 2012a). In Colombia, ECEC providers are required to run user satisfaction surveys each year, but the results are not collated or analysed regionally or nationally (MEN, 2015a). This is a missed opportunity to better understand parents' views, preferences and concerns, and thus insights on how to positively influence family decision making.

Recommendations

Colombia needs to improve both the quantity and quality of its provision if it is to increase the benefits it could gain from ECEC. While Colombia has made solid progress in increasing participation, it must now pay greater attention to quality and the educational value of ECEC. If children reach the

age of six or seven with poor verbal or other critical learning skills, they will struggle to benefit from schooling. Ensuring all children enter the transition year in school on time will be a key first step. Achieving these reforms will require greater leadership, co-ordination and funding, in particular at the local government level. ECEC must become a first priority for all stakeholders in the effort to raise national learning outcomes.

Improving the educational benefits of ECEC

Recommendation 1.1: Develop clear expectations for teaching and learning in ECEC

Developing learning expectations that set out the goals, learning areas and skills all Colombian children should achieve from birth until they start school is a first step in improving the educational benefits of ECEC. Clear learning expectations can be set out in a curriculum which explains their rationale, application methods and adaptation to different child needs. These expectations can and should include social and emotional skills as well as cognitive skills in critical learning areas that have been shown to have an impact on children's development and later success in education, such as verbal skills, numeracy, fine motor skills and self regulation. Guidance, including resource materials and examples of activities, should be developed to assist ECEC staff on how to work with children to achieve the desired learning goals and skills. Given the diversity of actors and provision in ECEC, building ownership of and commitment to these expectations will be needed to bring change and will require consultation between the MEN, the ICBF, the CIPI, secretaries of education, ECEC staff and parents, among others. These learning expectations and any curriculum will need to be aligned with other policies, such as monitoring, ECEC staff training and development and the development of a basic education curriculum.

Recommendation 1.2: Continue improving the initial education and professional development of the ECEC workforce

The quality of ECEC is largely dependent on the skills and practices of ECEC staff. This is especially important in Colombia, where high child poverty rates and weak home learning environments create challenging ECEC settings. Initial teacher education should foster effective pedagogical practices that ensure all ECEC staff are able to address the needs of young children and ensure school readiness. This training should be aligned to the learning expectations and curriculum in Recommendation 1.1, be practical and include supervised practicums. Existing pedagogical staff should also get

training to support the type of interaction that can best enable child learning and development, and initiatives should move towards ensuring that all those with lead responsibilities for children of pre-school age (3-5 year-olds) have pedagogical skills regardless of provider or modality. To achieve this, Colombia will need to adopt a variety of strategies to increase the skills of the workforce, such as introducing tailored, practical pedagogical professional training, ensuring at least a post-secondary level qualification at the same level as primary school teachers (i.e. the current level of *normalista*) and actively recruiting and retraining excess staff from the primary sector. This could be piloted in a region of the country with high levels of ECEC staff shortages.

Recommendation 1.3: Inform and support parents in providing an effective home environment

Informing and supporting parents on how they can provide effective early home learning environment is highly beneficial to child development. Colombia's family modality is one means of assisting families in this and should be strengthened and extended. Other types of ECEC provision can look to the family modality for examples of how to assist families to support their children's learning, such as with resource materials parents can use at home. ECEC staff also play a key role in engaging parents. As part of their training, ECEC staff should be given practical tools and materials to help them work effectively with families. This should include how to build parents' confidence and engagement, how to give advice on practical everyday activities that parents can undertake with their children to stimulate their development and how to achieve strong two-way communication about how the child is progressing.

Ensuring universal access to ECEC and successful transition to school

Recommendation 2.1: Address the inequities in ECEC participation

Colombia will need to further address inequities in ECEC participation levels, particularly among the most disadvantaged children who stand to reap the greatest benefits. The family modality has proven to be an effective means to reach households in rural and remote areas. This provision should be expanded to reach a greater number of families and areas, including those with high indigenous populations, and extended and given the right resources to support children until they reach school age. The More Families in Action programme should also be used to encourage participation in ECEC as well as basic and upper secondary education for children from low-income households.

Recommendation 2.2: Prioritise the transition year

It is essential for Colombia to proactively ensure that all 5-year-olds begin the transition year on time and ready for schooling. Colombia could put in place a number of measures to increase enrolment, such as providing a full school day for children in the transition year, even if it is not available for older age groups in the same school. This could alleviate the concerns parents have that their young child would be unsupervised and not receive adequate nutrition throughout the day. Linking the More Families in Action programme to children's attendance at school in the transition year, would provide a financial incentive for parents to enrol their children, and at the same time signal the importance of early schooling for a child's education. Efforts should be made to improve co-ordination between schools and ECEC services to facilitate transition, such as through joint training efforts between pre-primary and ECEC staff, which could also help to integrate ECEC and basic education curricula. Another option would be to build new ECEC centres in or close to schools and include them within school clusters (where these exist) under the school principal. Given the benefits at stake, these policies will and should require the support of secretaries of education, the ICBF and other stakeholders at the local level (i.e. local authorities, ECEC staff and school leaders). Media campaigns or the engagement of local community leaders could be used to raise awareness of the importance of children entering the transition year in a timely fashion among key stakeholders, particularly in low enrolment areas.

Strengthening the whole-system architecture of ECEC

Recommendation 3.1: Build clear leadership and funding mechanisms for improvement

As the Zero to Forever strategy approaches its 10th anniversary, this may be an opportunity to reflect on the strengths of the past and update the approach to ECEC. Colombia needs to shift its focus from inputs and provision to quality and outcomes to achieve effective system-wide improvement. This will require clarity over which agency is responsible for achieving positive outcomes from ECEC. In consultation with national ECEC stakeholders, the government should consider giving this overall role to the MEN. Assigning this responsibility to the MEN would emphasise the educational benefits of ECEC and link ECEC initiatives such as learning expectations, curriculum, teacher training and transition policies to the school sector. At the same time, departments and municipalities need to play a stronger and more proactive role in co-ordinating and supporting the delivery of ECEC services. Local authorities need to prioritise ECEC as part of the education system, but they could also be given incentives to invest

more in ECEC, for example by extending infrastructure projects within the full school day programme to include pre-primary provision. Options for further support from the private sector and philanthropic organisations should be explored not just to expand funding but to build a constituency for change and to diversify approaches.

Recommendation 3.2: Ensure accountability and quality assurance

In the long term, Colombia should aim to improve its monitoring system which will be essential to encourage ongoing improvements and to safeguard against poor practice. An independent agency, with the resources to undertake robust evaluations of services, is needed. This requires sound evaluation methodologies and skilled staff. Evaluation frameworks should be developed with the ECEC sector and key stakeholders such as parents wherever possible. These frameworks should have a focus on child well-being, development and outcomes. The process and results should also be transparent, so services can learn from each other, and there should be consequences for poor performance. Greater use could be made of available information, such as waiting lists and parent surveys, to inform policy. Given the focus on reaching more disadvantaged groups, disaggregated data on enrolment and quality need to be tracked closely and made more visible to strengthen and sustain the momentum for change. A greater focus on tracking the learning outcomes of all students from an early age could also help to increase awareness of the importance of early learning.

Annex 2.A1

Key ECEC initiatives (1970-2014)

Table 2.A1.1. **Key legislative ECEC initiatives (1970-2014)**

Policies	Key objectives
Law 75 of 1968	Created and defined the purpose of the Colombian Institute for Family Welfare (ICBF) to "protect minors and, in general, improve the stability and welfare of Colombian families" (Article 53). It also established pilot Family Welfare Centres and recommended links between community groups, family and child protection.
Law 27 of 1974	Created the Preschool Care Centres (*Centros de Atención Integral al Preescolar,* CAIP) and established their funding by using 2% of the value of the monthly payrolls of public and private organisations.
Law 07 of 1979	Amended Law 27 to extend access to a larger portion of the population beyond the children of working mothers.
Law 89 of 1988	Introduced the Community Welfare Homes Project (*Hogares Comunitarios de Bienestar,* HCB) to address poverty and provide care services for the poorest children. In 1991 the ICBF introduced the Family, Woman and Child Programme (*Familia, Mujer e Infancia,* FAMI) to target children under two and expectant and breastfeeding mothers in extreme poverty.
General Education Act (Law 115 of 1994)	Established pre-primary education to promote children's "integrated biological, cognitive, psychomotor, socio-emotional and spiritual development, through experiences of socialization in teaching and recreation". It also made the transition grade (Grade 0) compulsory (Articles 15, Law 115/94).
Decree No 2247 of 1997	Sets out specific norms for the MEN in regards to pre-primary education.
The Infant and Adolescent Code (Law 1098 of 2006)	Established the obligation of designing, executing and evaluating the policies for children and adolescents, and stated that all children of ECEC age have a right to comprehensive development.

Policies	Key objectives
Conpes 109 of 2007	Instituted the National Public Policy for ECEC as the way to promote the comprehensive development of children from birth until six, to meet their needs and contribute to addressing inequity in Colombia. It also created an alliance between the MEN, the ICBF and the Ministry of Social Protection to implement the Programme for Comprehensive ECEC (*Programa de Atención Integral a la Primera Infancia,* PAIPI).
Law 1295 of 2009	Regulated ECEC as the comprehensive attention to children, in particular those in SISBEN 1, 2 and 3.
National Development Plan 2010-2014 (Law 1450 of 2011)	Set the reforms in place for the current strategy of ECEC. It also stipulated funding for comprehensive ECEC would be prioritised by the ICBF while other national bodies would provide the necessary funds for their component of the ECEC policy. Early Childhood Comprehensive Care Strategy – From Zero to Forever introduced as the strategy for ECEC in Colombia (see Box 2.1), and introduced the institutional, including the community development centres (CDIs), and family modalities (provisions).
Decree 4875 of 2011	Established the Inter-sectoral Commission for the Comprehensive Attention to ECEC (*Comisión Intersectorial de Primera Infancia*, CIPI) to coordinate the policies, plans, programmes and actions of the different national actors (see Figure 2.1) under the coordination of the Presidential High Counsellor's Office for Special Programme of the Presidency of the Republic to ensure the necessary to carry out the comprehensive ECEC.
National Development Plan 2014-2018 (Law 1753 of 2015)	Introduced various reforms to strengthen ECEC by ensuring the legal sustainability of the current From Zero to Forever strategy, improving the quality of staff and the monitoring system, and extending the conditional cash transfer programme, More Families in Action (*Más Familias en Accion*).

Sources: UNESCO (2006), "Colombia: Early childhood care and education (ECEC) programmes", Country profile prepared for the *Education for All Global Monitoring Report 2007: Strong Foundations: Early Childhood Care and Education,* United Nations Educational, Scientific and Cultural Organization; ICBF (2015), "Transparencia y acceso a la informacion publica", Instituto Colombiano de Bienestar Familiar (Colombian Institute for Family Welfare) website, www.icbf.gov.co/portal/page/portal/PortalICBF/LeyTransparencia (accessed 15 October 2015); MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Notes

1. Poor and vulnerable children are those who are in status 1, 2 and 3 of the Selection System of Beneficiaries of Social Programmes (*Sistema de Identificación de Potenciales Beneficiarios de Programas Sociales*, SISBEN). SISBEN is a proxy means-based test tool used by the government to identify the most disadvantaged families so that they may access social programmes, such as ECEC services.

2. The Income Tax for Equality (*Impuesto sobre la Renta para la Equidad*, CREE) is a national tax, which works similarly to an income tax on the profits and gains of companies. It is meant to be a company's contribution to the benefit of their employees, employment generation and social investments. There is also a CREE temporary surcharge which was introduced in December 2014 and is levied at an absolute rate (5% in 2015) over a certain threshold of taxable income (COP 800 million).

3. Bernal used the Family Day Care Ratings Scale (FDCRS) on the family environment in *Hogares Comunitarios*, the Early Childhood Environment Rating Scale (ECERS) for institutional modality classrooms for children older than two, and the Infant/Toddler Environment Rating Scale for institutional modality classrooms for children under two. These ratings scales are used in international standards.

4. An individual is considered "poor" or living in poverty, if he/she lacks the income required to cover a basic family food basket and other basic needs (e.g. health care expenses, education and clothing), and as "extremely poor" if he/she lacks the income to consume a minimum number of calories.

References

Álvarez Marinelli, H., A. Nury Martínez, M. Pinzón Caicedo and L. J. Piñeros (forthcoming), *Nota de política: Oportunidades y Desafíos en el Sector Educativo Colombiano,* Inter-American Development Bank, Bogotá.

Alcaldía de Medellín (2014), *Sistematización de la Experiencia Educativa de la Estrategia: Gestación y Primer Año del Programa Buen Comienzo*, Alcaldía de Medellín, www.medellin.gov.co/irj/go/km/docs/pccdesign/SubportaldelCiudadano_2/PlandeDesarrollo_0_4/Publicaciones/Shared%20Content/Documentos/2014/GestacionyprimeranoprogramaBuenComienzo.pdf.

Alcaldía de Bogotá (2014), *Informe de Rendicion de Cuentas 2014*, Alcaldia de Bogota, www.bogotahumana.gov.co/article/informe-rendici%C3%B3n-cuentas-distrital-2014.

Anders, Y. (forthcoming), *Literature Review on Pedagogy*, OECD Publishing, Paris.

Attanasio, O. et al. (2012), *Desarrollo Infantil Temprano y Brecha Socio-económica: Evidencia de una Sección Cruzada de Niños de 6 a 42 Meses en Bogotá,* Social Protection and Health Division, Inter-American Development Bank.

Araujo, M.C., F. López-Boo and J. M. Puyana (2013), *Overview of Early Childhood Development Services in Latin America and the Caribbean,* Social Protection and Health Division, Inter-American Development Bank, https://publications.iadb.org/bitstream/handle/11319/3617/BID_Panorama_ENG%20(Web).pdf?sequence=2.

Bartik, T.J. (2014), *From Preschool to Prosperity: The Economic Payoff to Early Childhood Education*, W.E. Upjohn Institute for Employment Research, Kalamazoo, MI. http://dx.doi.org/10.17848/9780880994835.

Bernal, R. (2014), "Diagnóstico y recomendaciones para la atención de calidad a la primera infancia en Colombia", *Cuadernos Fedesarrollo,* No. 51, Fedesarrollo, Bogotá, Colombia, www.fedesarrollo.org.co/wp-content/uploads/2014/04/debate_pres_2014_cuad51.pdf.

Bernal, R. et al. (2012), *Evaluacion de Impacto del Programa Jardines Sociales/Centros de Desarrrollo Infantil*, Centro de Estudios de Desarrollo Económico-CEDE, Facultad de Economía, Universidad de los Andes.

Cardona- Sosa, L. and L. Morales (2015), "Efectos laborales de los servicios de cuidado infantil: Evidencia del programa Buen Comienzo", *Borradores de Economia,* No. 882, Banco de la Republica.

CIPI (2013a), *De Cero a Siempre: Informe de Seguimiento y Evaluación a la Estrategia de Atención Integral a la Primera Infancia*, Comisión Intersectoral de Primera Infancia (Intersectoral Commission for the Comprehensive Care of Early Childhood), Bogotá, www.deceroasiempre.gov.co/QuienesSomos/Paginas/Documentos.aspx.

CIPI (2013b), *Estrategia de Atención Integral a la Primera Infancia: Fundamentos Políticos, Técnicos y de Gestión (Early Childhood Comprehensive Care Strategy: Political, Technical and Management Fundamentals)*, Comisión Intersectoral de Primera Infancia (Intersectoral Commission for the Comprehensive Care of Early Childhood), Bogotá, www.deceroasiempre.gov.co/QuienesSomos/Documents/Fundamientos-politicos-tecnicos-gestion-de-cero-a-siempre.pdf.

DANE (2015), "Pobreza y desigualdad", Departamento Administrativo Nacional de Estadistica (National Department of Statistics) website, www.dane.gov.co/index.php/estadisticas-sociales/pobreza.

DfE (2014), Statutory Framework for the Early Years Foundation Stage: Setting the Standards for Learning, Development and Care for Children from Birth to Five", Department for Education, London, www.gov.uk/government/publications/early-years-foundation-stage-framework--2.

DNP (2015), *Bases Plan Nacional de Desarrollo 2015-2018*. Departamento Nacional de Planeación (National Planning Department), Bogotá.

Duncan, G.J., and K. Magnusen (2013), "Investing in preschool programs", *Journal of Economic Perspectives,* Vol. 27/2, pp. 109-132.

Educación Bogotá (2015), "Educación inicial", Educación Bogotá website, www.educacionbogota.edu.co/temas-estrategicos/curriculo-40-40/educacion-inicial (accessed 7 August 2015).

Gettinger, M. and K.C. Stoiber (2012), "Curriculum-based early literacy assessment and differentiated instruction with high-risk preschoolers", *Reading Psychology,* Vol. 33/1-2, pp.11-46, http://dx.doi.org/10.1080/02702711.2012.630605.

Government of Colombia (2014), *Estrategia de Atención Integral a la Primera Infancia: De Cero a Siempre: Informe de Balance y Prospectiva,* Government of Colombia, Bogotá.

Government of Colombia (2015), De Cero a Siempre website, Consejería Presidencial para la Primera Infancia (Presidential Advisory Council on Early Childhood), www.deceroasiempre.gov.co/Paginas/deCeroaSiempre.aspx.

ICBF (2015), "Transparencia y acceso a la informacion publica", Instituto Colombiano de Bienestar Familiar (Colombian Institute for Family Welfare) website, www.icbf.gov.co/portal/page/portal/PortalICBF/LeyTransparencia (accessed 15 October 2015).

ICBF (2014a), "Aseguramiento a la calidad", Instituto Colombiano de Bienestar Familiar (Colombian Institute for Family Welfare) website, www.icbf.gov.co/portal/page/portal/PortalICBF/EiInstituto/AseguramientoDeLaCalidad (accessed 2 June 2015).

ICBF (2014b), "Cuentame", Instituto Colombiano de Bienestar Familiar (Colombian Institute for Family Welfare) website, www.icbf.gov.co/portal/page/portal/PrimeraInfanciaICBF/Cuentame (accessed 2 February 2015).

ICBF (2014c), "SUIN-Sistema Único de Información de la Infancia", Instituto Colombiano de Bienestar Familiar (Colombian Institute for Family Welfare) website, www.icbf.gov.co/portal/page/portal/PortalICBF/Bienestar/SUIN1 (accessed 30 January 2015).

ICBF (2014d), "Guia para la transición de los niños y ninas desde los programas de atención a la primera infancia del ICBF al grade de transición", *Guia Orientadora*, No. 8, Instituto Colombiano de Bienestar Familiar (Colombian Institute for Family Welfare), www.icbf.gov.co/portal/page/portal/IntranetICBF/macroprocesos/misionales/primera-infancia/g/G8%20MO1%20MPM1%20Gu%C3%ADa%20de%20Transici%C3%B3n%20a%20la%20educaci%C3%B3n%20formal%20v1.pdf.

ICFES (2014), "Contexto escolar y social del aprendizaje en Colombia (CESAC)", Instituto Colombiano para la Evaluación de la Educación (Colombian Institute for the Evaluation of Education), www.icfes.gov.co.

Lazzari, A. and M. Vandenbroeck (2012),"Literature review on the participation of disadvantaged children and families in ECEC services in Europe", in Bennett, J. (ed.), *Early Childhood Education and Care (ECEC) for Children from Disadvantaged Backgrounds: Findings from a European Literature Review and Two Case Studies*, European Commission.

Levitt, R., B. Janta and K. Wegrich (2008), *Accountability of Teachers: A Literature Review*, RAND Corporation, Santa Monica, CA.

Litjens, I. and M. Taguma (2010), *Revised Literature Overview for the 7th Meeting of the Network on Early Childhood Education and Care*, Network on Early Childhood Education and Care, OECD, Paris.

MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2015b), "Estadísticas sectoriales de educación básica y media", Ministerio de Educación Nacional (Ministry of National Education) website, http://menweb.mineducacion.gov.co/seguimiento/estadisticas/.

MEN (2015c), *Informe de Rendición de Cuentas 2014*, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2014a), "Modalidades y condiciones de calidad para la educación inicial", *Guía,* No. 50, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2014b), "Orientaciones para el cumplimiento de las condiciones de calidad en la modalidad institucional de educación inicial", *Guía,* No. 51, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2014c), "Orientaciones para el cumplimiento de las condiciones de calidad en la modalidad familiar de educación inicial", *Guía,* No. 52, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2014d), "Fortalecimiento institucional para las modalidades de educación inicial", *Guía,* No. 54, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

OAS (2010), "Executive summary", in *Statistics and Education Policies Related To Early Childhood Transitions: Studies from Colombia, Chile, Peru, Venezuela and Brazil,* Organization of American States, Washington, DC, http://portal.oas.org/LinkClick.aspx?fileticket=4qm9uGCDowc%3D&tabid=1317.

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

OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

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

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

OECD (2012b), "Qualifications, education and professional development matter", *Encouraging quality in Early Childhood Education and Care (ECEC) Research Brief,* OECD Publishing, Paris, www.oecd.org/education/school/49322232.pdf.

OECD (2006), *Starting Strong II: Early Childhood Education and Care*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264035461-en.

Piñeros, L., B. Caro Acero and L. Villa Arcila (2013), "Diagnostico de los sistemas de información de la educación inicial, básica, media y superior", ESOCEC, July 2013.

Sylva, K., E.C. Melhuish, P. Sammons, I. Siraj-Blatchford and B. Taggart (2004) *The Effective Provision of Pre-School Education (EPPE) Project: final report*, Department for Education and Schools, London.

UNESCO (2010), *Early Childhood Care and Education Regional Report: Latin America and the Caribbean*, prepared for the World Conference Early Childhood Care and Education, Moscow, September 2010, 27 August 2010, United Nations Educational, Scientific and Cultural Organization, http://unesdoc.unesco.org/images/0018/001892/189212e.pdf.

UNESCO (2006), "Colombia: Early childhood care and education (ECEC) programmes", Country profile prepared for the *Education for All Global Monitoring Report 2007: Strong Foundations: Early Childhood Care and Education,* United Nations Educational, Scientific and Cultural Organization.

UNICEF (2014), "Educación inicial", United Nations Children's Fund Colombia website, http://unicef.org.co/educacion-inicial.

Vizcaino Pulido, J., Y. Ramirez Suarez and J. Cuellar Garcia (2010), *La Politica Publica de Primera Infancia en Colombia: Algunas Consideraciones en Torno a su Financiamiento e Implementacion*, Fundacion Centro de Estudios Escuela para el Desarrollo, https://ninezyeducacion2.files.wordpress.com/2010/11/financiamiento_politicapi_final.pdf.

Vargas-Barón, E. (2009), *Implementación a Gran Escala: El Desarrollo de la Primera Infancia en América Latina,* UNICEF and the RISE Institute, www.unicef.org/lac/Gran_Escala_UNICEF_Vargas_Baron.pdf.

Vegas, E. and L. Santibáñez (2010), *The Promise of Early Childhood Development in Latin America and the Caribbean,* The World Bank, http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079922573/ECD_LAC.pdf.

World Bank (2013), *Colombia: Early Childhood Development*: *SABER Country Report 2013,* The World Bank, http://wbgfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/CountryReports/ECD/SABER_ECD_Colombia_CR_Final_2013.pdf.

Chapter 3

Primary and lower secondary education in Colombia

Over the last 25 years, legislative reforms have transformed primary and lower secondary education in Colombia, establishing the objectives, principles and structures which define basic education. This chapter examines the major policy developments and the main performance trends in this sector. It then proposes the significant changes in policy and practice that Colombia must undertake in order to provide quality basic education for all children. Teachers and schools need to ensure that curricula, assessments and classroom time are all being used effectively to enable the acquisition of basic skills. The skills of the teaching workforce will also need to be upgraded and investing in school leadership will be pivotal to improvement. Schools and local governments need additional support to lead these efforts, such as the right incentives, a better balance of autonomy and accountability, and information systems to enable and encourage policy reform.

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.

A quality basic school system ensures that all children achieve their full learning potential and acquire the core skills needed for life and work. In Colombia, basic education comprises five years of primary school (for 6-10 year-olds) and four years of lower secondary school (for 11-14 year-olds). Together with the transitional year of pre-school, this forms the compulsory phase of education. Access, free of charge, is guaranteed by law. Colombia has made tremendous progress over the past two decades in expanding the coverage of basic education. It has introduced and scaled up innovative programmes to reach marginalised communities, such as the New School (*Escuela Nueva*) which other countries have adopted as a model. Within the last ten years, participation in lower secondary education has increased by close to 50%. Colombia has also taken important steps to professionalise the teaching workforce and build information systems to support learning improvement. However, access to basic schooling remains out of reach for a large number of Colombian children. In 2011, some 15% of 6-year-olds were not in primary school (UNICEF, 2014). For those in school, the quality of education is often insufficient to enable children to acquire basic skills. Achieving good quality universal basic education is the first priority for the government. This chapter looks at the important milestones Colombia has already achieved in this direction. It then examines policies and practices that could enable the country to bridge the remaining equity and quality gaps.

Context and main features

Recent and current policy developments

Over the last 25 years, the Colombian primary and lower secondary education system has undergone a structural and substantive transformation. Since 1991, the operation of basic education services has been progressively devolved to departments and large municipalities with the aim of improving the effectiveness of education delivery and strengthening democratic participation. In 1994, the General Education Law established the main pillars of basic education (i.e. the objectives and principles of education, the structure of education services and the distribution of responsibilities), and gave schools far-reaching autonomy to define their own curricula. In 2001, the responsibilities of each level of government were clarified to address some of the initial challenges created by decentralisation. The system for allocating resources for education across sub-national entities was restructured in an attempt to better align funding with actual need. In the 2000s, several policy initiatives known collectively as the "Education Revolution" resulted in the considerable expansion of lower secondary education and introduced mechanisms to strengthen accountability and incentivise improvement. In 2002 a new statue for the teaching and

leadership profession was introduced, making performance and evaluation the basis for career progression. The introduction and continued improvement of national assessments has shifted national attention towards learning outcomes and provided tools to measure the performance of schools and the school system as a whole.

The current policy priorities are to close the remaining access gaps and improve the quality of education. The National Development Plan 2010-2014 (*Plan Nacional de Desarrollo 2010-2014*, PND; see Chapter 1) defines six axes to improve primary and lower secondary education: 1) fostering teaching excellence; 2) extending the number of schools teaching a full day to reinforce basic competences; 3) reviewing the current distribution of resources to improve equity and efficiency; 4) tackling illiteracy; 5) reinforcing the English language; and 6) identifying and supporting the most talented students (DNP, 2015). It also sets three objectives to measure progress in primary and lower secondary education between 2013 and 2018: a 12% increase in the proportion of Grade 5 students who score over the baseline in the SABER 5 national assessment, a rise in the share of students in full-day schools from 11% to 30% and an increase in the proportion of students who perform at B1 level in English from 2% to 8%. The PND also includes initiatives to improve the quality of ECEC, to provide students with a stronger start in school (see Chapter 2). Reforms in primary and lower secondary education are also intended to influence the achievement of ambitious objectives set for upper secondary and tertiary education.

Governance and funding

The responsibilities for the governance and funding of primary and lower secondary education are shared between the central, regional, local and school level (see Chapter 1). At the national level, the Ministry of National Education (*Ministerio de Educación Nacional*, MEN) is responsible for formulating policies and objectives to develop the sector, regulating the organisation and provision of services (e.g. funding principles, teacher numbers, salaries and pedagogical competence), and monitoring the system (e.g. information and evaluation systems). In recent years, the national government has taken on an increasingly important role in the design and implementation of programmes to improve the delivery of education services in public schools. At regional and local level, the main responsibilities of the certified departments and municipalities – those granted the status of Certified Territorial Entities (*Entidades Territoriales Certificadas,* ETCs; see Chapter 1) – are to manage financial resources (national transfers, local revenues and oil and mining royalties) and the teaching workforce; to design and implement plans to improve education access and quality; and to oversee and inspect education services. Departments are also tasked

with providing technical assistance to non-certified municipalities. The latter play a limited role in education service delivery, lacking financial and technical capacity and receiving only a small amount of resources from the General Participation System (*Sistema General de Participaciones*, SGP), the mechanism used to redistribute national funds to support health and education services across the country (see Chapter 1).

In comparison with OECD countries, school principals in Colombia have little autonomy over their teaching workforce, but considerable responsibility for determining curricula and student assessment policies (OECD, 2013a). Principals take the lead in defining their school's Institutional Educational Project (*Proyecto Educativo Institucional*, PEI), which explains how the school will adapt national directives and curricula guidelines. Principals also distribute teaching tasks and appraise teachers' performance on an annual basis, but have no say in their recruitment, dismissal and remuneration (MEN, 2015a). Each school is expected to have an Executive Committee that gathers the main stakeholders for the school and local community to discuss and provide guidance on academic and administrative issues.

Education funding remains highly centralised, with the lion's share of resources for schooling from the transition year through to the end of upper secondary education transferred by the MEN to departments, municipalities and schools through the SGP. Between 2002 and 2013, the SGP's share of total education expenditure decreased markedly, from 80% to 60%, and the share of direct spending by the national government almost doubled from nearly 9% to 17%. Spending by ETCs from their own revenues has also increased but it still only accounted for 13% of total spending in 2013 (Álvarez et al., forthcoming). While total (public and private) spending per student on primary and lower secondary education relative to GDP (20% and 21%, respectively) is close to the OECD average (23% and 26%, respectively), in absolute terms expenditure per student is very low and private resources play a more important role than they do in the majority of OECD countries (OECD, 2014a; see Chapter 1).

The bulk of SGP resources (80% in 2011) are transferred to certified entities on a per-student basis to cover the costs of teachers and administrative staff, school buildings, maintenance and general operational costs. The ETCs then distribute the public resources to individual schools at their own discretion. Most, if not all, of the resources from the SGP go to cover teacher salaries; often the initial estimate is insufficient and has to be topped up at the end of the year to cover the deficit for salary costs. The formula, which is made public, has been refined at least five times in the last decade to improve the equity and effectiveness of allocations. It contains 15 variables related to 4 components (education development, local economic and institutional

conditions, social vulnerability, and costs) (MEN, 2015a). The MEN is exploring ways to further improve resource allocation by increasing the accuracy of per-student costs, clarifying the distribution of responsibilities across different government levels and improving its oversight of resource use (DNP, 2015). Such reforms are critical given that corruption is a persistent concern across the country (see Chapter 1).

The SGP also now includes an additional performance-based allocation known as the quality component to provide incentives for certified and non-certified municipalities to improve learning outcomes and reduce grade repetition and dropout rates. However, the gradual increase of staff costs has limited the resources available for quality investment, which represented only 8% of the SGP in 2013 (Álvarez et al., forthcoming).

Public schools receive a small amount of resources directly from the SGP (around 5% in 2013). Resources are mainly distributed on the basis of the size of school and the poverty index of the relevant municipality. Since 2011, criteria related to school effectiveness and quality are also taken into account. Schools that increase their overall performance and rate of improvement across key indicators (SABER results, grade repetition, dropout rates) receive an additional monthly allocation. Public schools are not allowed to charge tuition or additional fees from parents. The free schooling policy was implemented in 2008 for the poorest students, made universal for primary education in 2011, and expanded to lower secondary and other grades in 2012. The MEN sets maximum yearly increases of tuition fees for private schools on the basis of an institutional evaluation and national assessment results.

Learning goals and curricula

The most distinctive feature of the Colombian basic education system is the autonomy schools have over the curriculum. According the General Education Law of 1994, every school in Colombia has the right to define its own curriculum and study plans through its PEI. It is rare for schools to have full autonomy over their curricula but in Colombia it is a central aspect of its decentralisation policy and regarded as crucial to ensuring that schools meet the needs of the country's diverse population groups and communities.

The MEN has issued curriculum guidelines (1998) and basic competence standards (2003), along with pedagogical guidelines, to help steer schools in designing their own curricula. Curriculum guidelines support the development and planning of compulsory and core subjects. Competence standards establish criteria to determine whether a student, educational institution or the education system as a whole complies with common quality

expectations in the subjects evaluated in national external assessments (i.e. mathematics, languages, natural sciences and civic education). These standards are established by cycle rather than individual grade (Grades 1-3, 4-5, 6-7, 8-9 and 10-11). Pedagogical guidelines provide guidance on teaching practice in compulsory and core subjects. Through specific programmes, such as the "Let's All Learn" programme (*Programa de Transformación Educativa "Todos a Aprender"*, PTA), the MEN has provided additional, more prescriptive, curriculum and pedagogical guidance to schools with poor performances in national assessments. In 2015, the MEN launched the Basic Learning Rights (*Derechos Básicos de Aprendizaje*) initiative to inform teachers and parents about the competences that children should acquire in mathematics and language in each grade. Some municipalities and departments (e.g. Antioquia, Barranquilla, Bogotá, Envigado and Medellín) have also developed their own curriculum guidelines for schools and teachers. There is increasing discussion in Colombia regarding the need for a more clearly defined national curriculum providing greater guidance to schools, while respecting the country's socio-cultural diversity.

Organisation of schools

School network

An important aspect of the Colombian school system is the existence of a wide array of education modalities addressing the needs of a linguistically, culturally and geographically diverse population. Of the 7.5 million students enrolled in primary and lower secondary education in 2014, 84% were enrolled in mainstream schools, with most of the remainder participating in what are called "flexible models" in Colombia (Table 3.1). There are 23 of these, but the single most widespread flexible education model is the New School (*Escuela Nueva*), which accounts for some 8% of all students enrolled in basic education. It provides basic education to rural and isolated populations through multi-grade classes (Box 3.4). Other models include the post-primary model, in which one or two primary school teachers are responsible for teaching all lower secondary education subjects with limited additional support, and the tele-secondary which uses television as the main instructional tool, building on a similar programme in Mexico for lower secondary education. Ethnic communities (e.g., indigenous peoples, Afro-Colombians) have considerable autonomy to organise their own schools and curriculum. In 2014, such "ethno-education" programmes accounted for 2.3% of total enrolment. Wherever possible, students with special needs attend mainstream schools with the assistance of specialists. However, many schools continue to lack the infrastructure, trained teachers and specialists needed to create an inclusive learning environment. According to MEN data, 2% of public basic education

students in urban areas and 1.4% in rural areas had special needs in 2014, although this is likely to be an underestimate given the absence of clear methods to identify and register special needs in the country.

Table 3.1. **Number of school branches and students (2014)**

	School branches		Students		
	Public education	Private education	Public education	Private education	Total
TOTAL	**44 416**	**6 575**	**6 434 700**	**1 065 987**	**7 500 687**
By level of education					
Primary	43 739	6 399	3 735 902	640 822	4 376 724
Lower secondary	10 814	3 418	2 698 798	425 165	3 123 963
By methodology					
Traditional	16 255	6 542	5 260 949	1 061 978	6 322 927
Traditional and flexible	1 104	12	298 506	2 571	301 077
Escuela Nueva	25 318	15	569 525	1 282	570 807
Other flexible models	1 739	6	305 720	156	305 876
Ethno-education	2 588	1	169 792	1	169 793
By location					
Urban	9 718	6 256	4 568 827	1 007 458	5 576 285
Rural	34 698	319	1 865 873	58 529	1 924 402

Note: Public education includes publicly funded alternatives (public schools, *escuelas concesionadas* and *matrículas contratadas*). The number of school branches by type of provision and level of education cannot be aggregated as they might be counted in more than one category.

Source: Data from the Colombian National Ministry of Education.

Public education is either provided directly through publicly managed schools or, where there is not enough capacity, through *escuelas concesionadas* – public-private partnerships where the school is privately operated with autonomy over the use of resources but publicly subsidised and under the supervision of the certified entity – or *matrículas contratadas* – private schools with a limited number of publicly funded places for low-income students. According to data from the MEN, 86% of basic education students were enrolled in public education in 2014: 80% in fully public schools, 4% in *matrículas contratadas* and 1.5% in *escuelas concesionadas*, which have been used to facilitate the expansion of enrolment. The 14% of students in private education is a similar proportion to the average across OECD countries of 11% at primary and 14% at lower secondary level

(OECD, 2014a). Private schools in Colombia are primarily located in urban areas; in 2014 only about 5% of students attending fully private schools were in rural areas, compared with 29% of students attending public schools. Students in private schools also tend to have a higher socio-economic background, although some low-cost private schools cater to disadvantaged groups. The difference in socio-economic background between students in private (subsidised or not) and public schools in Colombia was one of the largest among countries participating in the 2012 PISA survey, and more than double the OECD average, although it was below some other Latin American countries such as Mexico and Brazil (OECD, 2013a).

Since 2003, the MEN has promoted the clustering of public schools to ensure students have access to all grades from the transition year to upper secondary education within one school network in an effort to smooth the transition between levels and reduce dropout rates (Piñeros, 2010). In 2002, 48% of schools only offered primary education, 35% offered pre-school and primary education and only 5% offered the complete pre-school, primary and secondary cycle. In the 2013 school year, each public school cluster had on average 3.37 branches, although this figure varied widely from 1 to 30. Most branches (65%) were located in rural areas (MEN, 2015a). Clusters of rural schools tend to have a larger number of branches which can be spread across considerable distances, making co-ordination difficult, and transition still a challenge for students. Each cluster is managed by a school principal, with the support of deputies or teacher co-ordinators for each branch of the school cluster and other staff for administrative and financial issues. Within the public school system, parents are free to choose the school they would like their children to attend as long as there are places available; otherwise, priority is given to students who have siblings in the school or who live nearest.

Instruction time

Primary and lower secondary students in Colombia attend at least 15 days more school per year than the OECD average. This translates into an above-average number of total hours of compulsory instruction during primary and secondary education in Colombia: 9 800 hours, the second highest number of hours for which data is available, and about 2 300 hours more than the OECD average of 7 475 hours (OECD, 2014a). Plans to increase the length of the school day to the full 7 hours would increase this to 12 600 hours. The effective instruction time is, however, much shorter. A study on the use of classroom time revealed that teachers dedicate 65% of their time to academic activities with students, 25% to class administration tasks (e.g. instructions, discipline, marking homework and the register) and almost 10% to off-task activities (e.g. social interactions, absence from the

classroom) (World Bank, 2012). As a result, only 32 minutes of a 50-minute lesson in primary education is spent on teaching students. These results are similar to other Latin American countries and suggest that more than 20% of potential instructional time is lost.

The accommodation of an ever-expanding student population has been one of the main challenges of the Colombian school system in the last decades, resulting in multiple shift schooling and many large classrooms, especially in urban areas. According to data from the MEN, 27% of public school branches operated a full day (defined as at least 7 hours), 60% operated a single shorter shift, and 13% two or more shifts in 2014. About 63% of public school students were enrolled in a morning shift, 26% were enrolled in an afternoon shift, and only about 11% participated in a full day of school. In contrast, 60% of students enrolled in fully private schools benefited from a full day. Attendance at a full-day school is highly correlated with socio-economic background, with roughly 27% of those whose family income was less than the minimum salary benefiting from a full-day school, compared with 75% for those with family earnings above 10 times the minimum salary in 2009 (Bonilla, 2011). The proportion of primary and lower secondary students who experience a full of day of public schooling in Colombia is similar to that in Mexico (INEGI/SEP, 2013), but far below Chile where almost all schools operate on a full-day basis.

The nationwide expansion of full-day schooling (*jornada única*) is one of the current government's flagship initiatives. The objective of establishing a single daytime shift dates back to the 1994 Law on Education, but the provision was set aside in 2002 because of tight budgets in a trade-off between a longer school day and the expansion of enrolment (MEN, 2015b). The MEN is currently exploring ways to gradually increase the number of full-day schools in an attempt to strengthen basic competencies (mathematics, science and language) and reduce the exposure of vulnerable children to out-of-school risks (such as crime, drugs and pregnancy) that can negatively impact their education and well-being (DNP, 2015). The goal is that all schools will provide full-day schooling by 2025. Many departments, municipalities and schools have already implemented a variety of approaches to lengthen the time at school with curricular or extracurricular activities, which have informed the current national initiative.

Even with the use of shifts, classrooms are typically large compared to OECD countries, with the maximum student-classroom ratio set at 35 for primary education and 40 in lower secondary in urban areas, and 25 and 28, respectively in rural ones. According to the reports from school principals in PISA 2012, the average class size in lessons on the language of instruction in lower secondary students was 33.5 students in Colombia, but this ranged from 25.3 in sparsely populated areas to 34.8 in cities.

These are well above the OECD averages of 22, 20.1 and 24.6, respectively, but similar to other Latin American and Asian economies participating in PISA (OECD, 2013a).

Reaching out-of-school students and reducing dropout rates

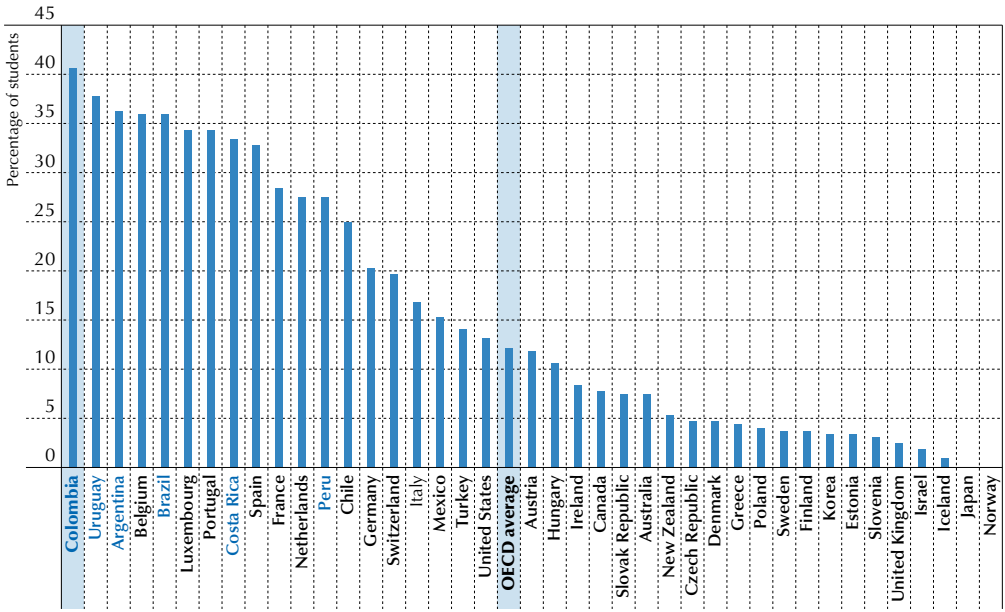
Colombia has adopted a wide range of initiatives to improve coverage for disadvantaged groups and reduce dropout rates. In addition to flexible schooling models, the abolition of school fees, food and transport programmes, and communication strategies to raise public awareness of the importance of school attendance have helped to expand access for students from poor families. Specific strategies have been designed to reach students who are considered to be particularly at risk, such as children from ethnic minorities, those displaced by conflict, children with special needs or child workers, and those from dispersed rural communities (see Chapter 1). Increased efforts are being made to actively identify individuals who have never attended school or have dropped out. For instance, ETCs are provided with a list of intra-annual dropouts to facilitate local initiatives to bring children back into the education system before they become permanently disengaged. In 1998, the municipality of Armenia introduced an initiative, "School Reaches Out to the Children", to identify students who are outside the education system and provide them with comprehensive support to re-enter. The success of the initiative has led to its extension to several other municipalities and departments.

Student assessment

Schools have a large degree of autonomy over the definition of policies to assess student learning outcomes, such as the choice of evaluation methods and criteria for promotion. In contrast with most OECD countries, Colombia has no external individual student assessments in basic education. The main role of school-level student assessment in Colombia is to determine progression to the next grade. Evaluation and promotion committees, consisting of the school principal, three teachers from each grade and a parent representative, determine student promotion and recommend support initiatives for those with learning difficulties. In 2002 the MEN attempted to reduce grade repetition by establishing a maximum failure rate of 5% for each school, but the measure was withdrawn in 2009 due to resistance from parents and schools (MEN, 2015a). In PISA 2012, 41% of 15-year-olds reported having repeated at least one grade in primary, lower secondary or upper secondary school, compared to 12% on average in OECD countries (OECD, 2013a) (Figure 3.1). About 22% of students in primary school had repeated at least one grade, as had 29% of those in lower secondary education, compared with OECD averages of 7% and 6%, respectively.

About 4% of students had repeated at least twice in primary and 6.7% in lower secondary school, compared to 0.7% and 0.5% on average in OECD countries. However, average OECD repetition rates conceal wide ranges from no grade repetition in Japan and Norway to 28% in Spain in lower secondary education. High levels of grade repetition are also common in other Latin American countries.

Figure 3.1. **Share of 15-year-old students who repeated at least one year, PISA 2012**



Note: Non-OECD countries are shown in blue.

Source: OECD (2013a), *PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.

External and internal evaluation of schools

With the increasing emphasis on education quality, Colombia has introduced instruments to measure the performance of schools in terms of learning outcomes and to strengthen internal school evaluation and improvement processes. At the centre of the external school evaluation system are the SABER standardised assessments. For the compulsory years of education, these consist of a standardised student assessment in Grades 3, 5 and 9, with a proposal under consideration to assess Grade 7 as well. The assessments evaluate mathematics and language in all grades, science and

citizenship skills in Grades 5 and 9, and financial competence in Grade 9. The national evaluation institute, the Colombian Institute for the Evaluation of Education (*Instituto Colombiano para la Evaluación de la Educación,* ICFES), is responsible for the design and application of these assessments and has made considerable improvements to the SABER tests in recent years. In 2009, SABER 5 and 9 were restructured in order to enable comparisons between years. Between 2010 and 2014, the frequency and scope of SABER 5 and 9 were modified, and they now run annually and in all schools instead of a sample of schools.

In 2015 Colombia introduced the Synthetic Education Quality Index (*Índice Sintético de la Calidad Educativa*, ISCE), a multidimensional index of school quality that builds upon the successful experience of the Brazilian Basic Education Quality Index. The ISCE takes into consideration student performance in national assessments, school progress in reducing the proportion of low-performing students, grade repetition and factors related to the school environment. Unlike most OECD countries, Colombia does not have a national quality inspectorate to evaluate school-level processes. However, some departments and municipalities still have a small body of school supervisors who, like the national supervisory body which was disbanded a decade ago, are primarily responsible for checking school administrative compliance. School principals are also required to conduct an internal school evaluation every year and, on the basis of this, to develop an improvement plan. In 2008, national guidelines were issued to support schools in their self-assessment processes.

Physical and instructional resources

Evidence suggests that many Colombian schools lack adequate physical and instructional resources. There is limited school-level information about the availability and state of school buildings and facilities, but self-reported data from school principals in PISA 2012 suggests that a shortage of school infrastructure is hindering instruction (OECD, 2013a). The lack of basic facilities, including running water and latrines, was evident to the review team during the visit and has been documented elsewhere (García et al., 2014). The state of school infrastructure is related to the limited funds available to local authorities and schools to upgrade facilities. Overall public and private expenditure on education infrastructure is very low in Colombia compared with other OECD countries and neighbouring countries such as Brazil and Mexico. Capital expenditure refers to spending on assets that last longer than one year, such as construction, renovation or major repair of buildings, and new or replacement equipment. In 2011, such expenditure was 1.7% of the primary and secondary school budget, compared to 7.7% and 7.1% respectively across OECD countries (OECD, 2014a). Similarly, expenditure

on sub-contracted services (8.2% in primary education), which includes expenditure on infrastructure such as the maintenance of school buildings or rental of facilities, was well below the OECD average of 20% (OECD, 2014a). An ambitious plan is under way to improve school infrastructure across the country and build the additional capacity needed to lengthen the school day. More than 50 000 classrooms will be built by 2018, drawing resources from the national budget, oil and mining royalties, and local governments (MEN, 2015a).

Many Colombian classrooms face a shortage of textbooks, information technology tools, and other teaching and learning materials. Following the delegation of autonomy over their curricula to schools, the MEN stopped providing textbooks to schools and instead included funding for such resources through the financial transfers system. With limited funds available under the SGP and local education budgets for quality investments, there are indications that many students in Colombia lack access to textbooks and that those learning materials that are available might be outdated (OECD, 2013a; MEN, 2014). In 2009, less than 20% of school branches used textbooks as a basic guide for students (Álvarez et al., forthcoming). National and local governments have introduced several programmes to address the shortage of quality materials in schools. Under the National Reading and Writing Plan (*Plan Nacional de Lectura y Escritura*, PNLE), for example, over 5.5 million books were distributed in 2014 to more than 20 000 pre-primary to upper secondary educational institutions, providing additional materials to some 7.5 million children (MEN, 2015b).

Teachers and school leaders

Fostering teaching excellence is one of the main policy priorities of the National Development Plan. To this end, there are proposals to strengthen the PTA programme, which seeks to improve teaching in poorly performing schools (Box 3.1), and also to review the whole teaching career structure. This includes actions to attract the best upper secondary graduates into initial teacher education programmes, improve initial teacher education institutions, reform career entry requirements and strengthen induction processes for new teachers. Initiatives for in-service teachers include the provision of scholarships to participate in master's programmes, a refined promotion and relocation procedure, and an increase in remuneration, as well as incentives for early retirement (DNP, 2015). The MEN also plans to explore ways to develop the leadership skills of school principals and their teams, an area which has received remarkably little attention in Colombia considering the high degree of autonomy schools have to determine teaching and learning practices.

The scope for upgrading the teaching and leadership profession is defined by the statutory conditions that regulate the teaching workforce. Teaching in Colombia is in transition between two statutes. Basic education teachers and school leaders who entered the profession after 2002 are regulated by Decree 1278 of 2002, which requires teachers and leaders to undergo an evaluation to enter, stay and be promoted in the profession. The statute was introduced to improve the quality of staff through stronger appraisal processes and performance-based (rather than seniority) promotion and pay. Older teachers are still regulated under Decree 2277 of 1979, where teachers automatically entered the profession on completing their initial training, and career progress and salary scale are determined primarily by years of service. A small share of older teachers have opted to join the new system, and the number of staff under the old statute is gradually declining due to retirement, but it will be another 25 years until the entire workforce is governed by the 2002 decree. By 2014, 28% of teachers were under the new regulations but 53% were still under the 1979 statute; the remainder (19%) were in provisional or temporary posts which are not fully regulated by either statute. These posts might be ones which are only created for a short period, or they might be permanent ones for which there were no 2002 or 1979 statute candidates. They could be held by teachers who did not pass the entrance examination, or were not successful enough in it to opt for a permanent post. The proportion of teachers with provisional positions is larger in municipalities with high levels of poverty and violence, which is probably related to the difficulties of recruiting teachers in these challenging contexts.

Profile of the current workforce

In the 2014 school year, there were 370 410 teachers and school leaders, an increase from 321 180 in 2005. In 2014, 259 445 teachers and 6 726 school leaders worked in schools providing public education. There are no indications of an overall national teacher shortage in primary and lower secondary education, except for in specific subjects and locations. Demographic trends also show no evidence of future national shortages, enabling more resources to be invested in improving teacher quality. However, different population growth rates across regions, urbanisation and progress towards peace are all likely to lead to significant internal migration, bringing the need for greater flexibility in the allocation of teachers.

As in most countries, the majority of primary school teachers in Colombia are female (76%), while only 54% of teachers in lower secondary education are women. Teachers tend to have long experience in the education sector, with an average of 23 years of service for those under

the 2277 statute. Although teachers have the right to retire at the age of 55, most choose to continue working as remuneration by seniority under the old statue automatically results in higher salaries and pensions over time (García et al., 2014). A significant proportion of teachers have not completed a university degree in education or other fields (33% in primary education and 19% in lower and upper secondary education for those under the old statute and 37% and 8% respectively for those in the new scheme). For the majority with a tertiary education degree, there are indications that the quality of initial education programmes they receive is poor (García et al., 2014).

Entering a teaching career

Aspiring teachers in Colombia need to have completed a teacher education programme or hold a tertiary degree and then successfully complete a competitive assessment and a probation period to enter into the profession. At present, there are two main pathways to obtain a teaching degree in Colombia: a post-secondary but non-tertiary degree from one of the Higher Teaching Schools (*Escuelas Normales Superiores*, ENS) which allows teaching in Grades 0 to 5, or an undergraduate university degree which allows teachers to teach all grades up to the end of upper secondary education. There are a large number of providers, with 138 ENS and 80 universities offering 376 teaching training programmes in total in 2013 (García et al., 2014). Most universities (76%) are located in the departmental capitals, while ENS have a greater presence in rural areas.

Colombia does not have clear national standards setting out the skills and knowledge teachers and school leaders should possess. Universities have the autonomy to define their own teacher training programmes and set the threshold for entry and graduation. The MEN has made some effort to improve the higher education quality assurance system (see Chapter 5) and provide technical support for ENS but initial teacher education is one of the few areas of the primary and lower secondary education system that has not been the subject of major reform in the last 25 years. The current government recognises this, and has signalled its intention to strengthen teacher training programmes as part of its efforts to foster teaching excellence.

Concerns regarding the quality of initial training have led the government to raise the standards for entry into the profession. Since 2004, entrance into the teaching profession requires the successful completion of a competitive assessment and a probation period of four to ten months. The assessments are organised by the National Civil Service Commission and consist of a content

mastery test, a psycho-technical test, the evaluation of their CV and an interview. Those aspiring to leadership positions have to undertake a similar merit-based assessment.

Professional development opportunities

There are no national requirements in Colombia for teachers to participate in professional development activities, or for school leaders to undertake further training on assuming their new responsibilities. The availability of professional development opportunities is likely to vary considerably across schools, municipalities and regions. Internationally comparable data on the actual extent of participation, and how much teachers value professional development activities will be made available when Colombia takes part for the first time in the next (2018) edition of the OECD Teaching and Learning International Survey (TALIS). The information currently available suggests that most teachers participate regularly in some form of professional development activity, but less frequently than on average across OECD countries, and with potentially less benefit (OECD, 2013a). In PISA 2012, school principals reported that about 22% of their mathematics teachers had undertaken a programme of professional development with a focus on mathematics in the three months prior to the assessment, compared to 39% across OECD countries. The proportion varied from 13% in socio-economically disadvantaged schools to 28% in advantaged ones, and from 16% in locations with less than 3 000 inhabitants to 23% in cities with over 100 000 inhabitants (OECD, 2013a).

A range of professional development activities are available across the country, including short courses, graduate and postgraduate courses, and school-based developmental activities. For the majority of teachers, however, the main opportunity for in-service teacher training is through short professional development activities (e.g. courses, workshops or seminars). These are delivered by multiple providers (national and local governments, the national teachers' union, and tertiary education institutions), with limited quality assurance and regulation. Information on the relevance and effectiveness of such activities is therefore lacking, but various factors, including the absence of teacher standards that could guide such training, suggests that it is likely to be of variable value at best.

In recent years, there have been increased efforts to improve the availability and quality of professional development activities. Since 2010, the main national initiative to support the development of teaching skills of in-service teachers has been the school-based programme PTA (Box 3.1). There is also a national initiative to support new teachers through a two-year mentoring programme, operating across seven certified entities (Bolívar, Cali, Chocó, Córdoba, Magdalena, Pereira and Tolima) (MEN, 2015b). In

early 2015, the MEN provided 3 000 scholarships for "excellent" teachers, defined as those in schools that have seen the greatest increase in their students' SABER 9 and 11 tests, to enrol in a master's programme in a university with high-quality accreditation to strengthen their professional competence. In 2010 the Foundation of Businesses for Education (*Fundación Empresarios por la Educación*) launched the Transformative School Principals (*Rectores Líderes Transformadores*) initiative in an attempt to address the limited specific in-service training opportunities available to school leaders (Box 3.3). With the support of local governments, the initiative has grown progressively in scale and now operates in eight municipalities and departments.

Box 3.1. **The programme *Todos a Aprender***

The "Let's All Learn" programme (*Programa de Transformación Educativa "Todos a Aprender"*, PTA) is the leading initiative to improve transition grade and primary school teachers' skills in Colombia's most disadvantaged schools. It builds upon the experience of the Programme of Rural Education which aimed to raise teaching skills through school-based coaching methods, strong pedagogical content strategies and well-sequenced instruction. Between 2010 and 2014, PTA has benefited 2 345 372 primary education students, over 90 000 teachers and has supported 4 303 schools located in 833 municipalities. Through a cascade teacher-training model, 100 trainers have provided pedagogical and didactic strategies to 3 000 mentor teachers who in turn provide on-site support for language and mathematics teachers to transform their classroom practices to improve student performance in the SABER 5 test.

The programme has several components including a coherent and relevant curriculum that identifies fundamental learning outcomes and serves as a guide for teaching practices. This is reinforced with textbooks, SABER tests in Grades 3 and 5, and a formative diagnostic test that teachers can use in addition to the SABER test results to identify learning gaps and improve student competences. Mentors are an important component of PTA as they are expected to conduct direct classroom observations and organise study groups built around the concept of communities of practice and learning, which includes reflection, collaboration and inclusiveness. Mentors also meet with school principals to improve leadership, strategic and results-based management, and the evaluation and monitoring of the school. PTA also aims to ensure that schools meet the basic conditions needed to operate (e.g. food, transport, physical infrastructure) and to foster the commitment of all educational actors (directors, teachers, students, parents and society in general) to improving education. In 2015, the programme is being redesigned to place a greater focus on teaching and academic excellence.

Source: MEN (2015b), *Informe de Rendición de Cuentas 2014*, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Teacher and school leader appraisal

The introduction of evaluation processes throughout teachers' careers is one of the major advances brought by the new teacher statute of 2002. School principals are expected to evaluate annually whether teachers and other school leaders are complying with their roles and responsibilities. Teachers and school principals can also participate in an external competence-based written examination, which is voluntary, but required if they want to be promoted or teach a different subject or educational level. Since 2010, there have been five rounds of external evaluations, with a success rate of around 20% (MEN, 2015b). In September 2015, external teacher appraisal was reformed to introduce videotaped classroom observation, which accounts for 80% of the final mark, and those who fail the appraisal are required to take a professional development course. Teachers under the old statute are not subject to an evaluation at any point in their careers, meaning unless they opt for assimilation into the new statute there are limited mechanisms to support their improvement or reward performance.

Career structure and remuneration

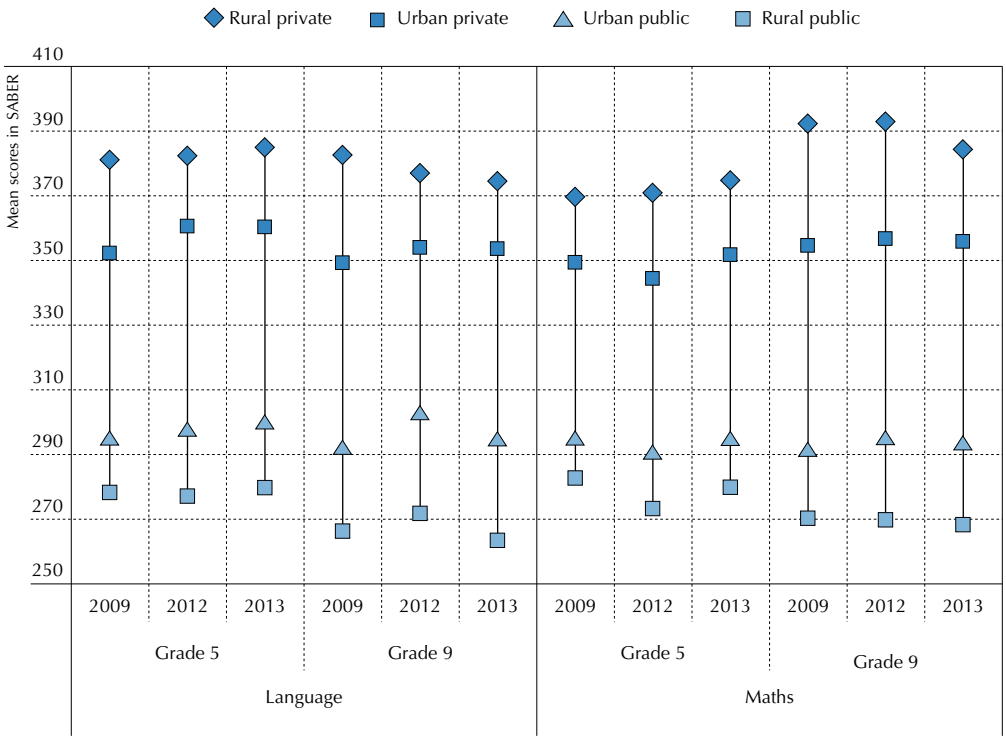
The 2002 statute moved Colombia towards a performance-based system for the remuneration of teachers and school leaders. Under the old statute, teachers were paid according to their number of years of experience, with supplements for publications, placement in rural and remote areas, and leadership responsibilities. Most teachers under the old statute are in the 3 highest categories of the 14-grade scale. The new statute pays teachers on the basis of their level of education according to three sub-scales: 1) ENS degree or other non-tertiary degree; 2) an undergraduate degree or equivalent; and 3) graduate or post-graduate qualifications. Within their grade, teachers can be promoted to a higher level if they have at least three years of experience, have been positively evaluated by their school principal and have successfully completed a national assessment. Between 2008 and 2010, the salary scale established in 2002 was adjusted with the aim of addressing low starting salaries and lack of early performance incentives. Under the new statute, the starting salary is about 26% higher and the top salary is 127% higher than it was before, while teachers can reach the top salary faster if they participate successfully in appraisals (Barrera, Maldonado and Rodríguez, 2012). In July 2015, a bonus was introduced for staff whose schools are participating in the two flagship initiatives of the MEN (PTA and *jornada única*). It rewarded meeting the minimum improvement target, on the basis of the ISCE, with an additional 50% of a full month's salary.

Trends in enrolment, performance and completion

The expansion of access to primary and lower secondary education is one of the major achievements of the Colombian education system in the last decade. While full enrolment has not yet been achieved, substantial progress has been made in increasing the number of children who start education at the appropriate age, reducing the proportion of children who never attend school and decreasing dropout rates. According to national trend data, between 2002 and 2013 the net enrolment at lower secondary level rose markedly from 57% to 72%, while that of primary education decreased slightly from 90% to 85% (MEN, 2015a). The expansion in lower secondary coverage might even be greater, as an audit of the full enrolment, which has been carried out since 2012, has shown that enrolment data from earlier periods might not be reliable as student numbers were largely over-reported by schools and local secretaries of education (MEN, 2015b). This also explains the apparent drop in primary enrolment, which is likely to reflect improvements in reporting rather than a fall in actual numbers. Today, over 90% of Colombia children from 7 to 13 years old attend school, which means that they are in the education system for at least seven years. This is an important improvement on previous generations. However, Colombian children spend considerably fewer years in school than their peers in OECD countries, where over 90% of children from 4 to 16 years old are enrolled in education (OECD, 2014a). This short education lifespan has implications for the level of skills Colombian students will have acquired when they leave basic education, and the extent to which they are prepared for further learning, work and life.

Ensuring the progression of students through the education system remains a considerable challenge in Colombia. Only 44% of students in public education complete their primary education on time and just 16% their lower secondary education, as the majority either start late, repeat a year and/or drop out (Álvarez et al., forthcoming). In 2011, 22% of 7 year-olds were enrolled below the corresponding grade for their age and 53% of those in the last lower secondary grade were over age (UNICEF, 2014). Comparison with other countries participating in PISA shows the extent of the difficulties Colombian students face in progressing through the system. Across OECD countries, 74% of students are at the modal grade (the expected grade for their year), 9% are in grades above, and 17% are in grades below. In contrast, in Colombia, only 40% of 15 year-olds in school are in the modal grade (Grade 10), while 39% are below and 21% are above (OECD, 2013a). Dropout rates fell between 2002 and 2013 from 7.6% to 4.5% in lower secondary education and from 8.7% to 3.2% in primary education but they are still high (MEN, 2015a). The cumulative effect of repetition and dropout significantly reduces the proportion of students who remain in the school system over the years (see Figure 4.2 in Chapter 4).

Figure 3.2. **Performance in SABER 5 and 9, by type of school and location (2009, 2012 and 2013)**



Source: MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

National and international assessments suggest that Colombia has a long way to go to ensure that its students enjoy the same quality of education as their peers in OECD countries and top-performing countries in Latin America (see Chapter 1). In 2014, national assessments showed that about half or more students are performing at an insufficient or minimum level in language (48% in Grade 3, 58% in Grade 5 and 59% in Grade 9) and mathematics (49% in Grade 3, 67% in Grade 5 and 73% in Grade 9). The results since 2009, when assessments were restructured to enable comparison over time, show little improvement in student performance in either mathematics and language. Since 2006, Colombia has participated in the OECD Programme for International Student Assessment (PISA), an international survey that measures the knowledge and skills of 15-year-olds in reading, mathematics and science. In 2012, the mean score of Colombian 15-year-olds in mathematics, which was the main field of assessment, was

376 score points, well below the OECD average of 494 (OECD, 2014b). In other words, Colombian students are performing some three years behind their peers in OECD countries on average. Colombia also performs well below other PISA participants, including other large economies in Latin America, such as Chile, Mexico and Brazil.

Important progress has been made in narrowing equity gaps, but education access and outcomes remain strongly related to socio-economic background and location in Colombia. Net enrolment for basic and upper secondary education was 20.1 percentage points higher in urban than in rural areas in 2008; by 2013 the difference had been reduced to 8.53 percentage points. Almost 70% of the new places created in public schools between 2010 and 2013 were in rural areas. Yet, while disadvantaged students have increasing access to education, they remain at much greater risk of falling behind than their more advantaged peers. Figure 3.2 shows the performance of students by type of school and location in language and mathematics in SABER 5 and 9. The performance difference between students in private and public education, regardless of location and subject assessed, are stark and have widened slightly since 2009. The differences between students in public schooling in urban and rural areas are smaller but significant and have also increased in both mathematics and language at Grades 5 and 9.

Key policy issues

Achieving universal access *with quality* is Colombia's central goal for basic education in the next four years. The past two decades have seen a remarkable expansion of enrolment in primary and lower secondary education. However, each additional year of education has realised few gains in national and international assessments, raising awareness of the urgent need to improve the quality of schooling so that all students acquire the skills they and their country need. Raising the quality of learning outcomes in Colombia will require significant changes in education policy and practice. First, it will require a shift in teaching and learning practices in schools to make sure curricula, assessments and classroom time are all being used effectively to enable the acquisition of basic skills. Second, it will require measures to further upgrade the skills of the teacher workforce, including a closer look at the quality of initial teacher training and professional development, the use of appraisal to encourage performance, and more investment in school leadership. Finally, schools and local governments need more and better support to lead these improvement efforts, including the right incentives, a better balance of autonomy and accountability, and information systems that enable and encourage school-level reform. Many of these issues are the object of government policies; some are not and could be and there are several instances where policies might be improved to have greater impact.

Across these key policy issues there are two overarching concerns that must be central to the drive to improve quality. The first is that of equity. Efforts to improve quality must benefit all Colombians. This means that additional attention needs to be paid to raising learning outcomes for disadvantaged students, schools and regions. It must be clear that the aspiration to excellence is an aspiration for every child. The second concern is capacity. Reducing performance gaps will not happen without stronger capacity across the board and particularly in disadvantaged schools and regions. Recent policies are intended to make each school's performance much more visible as a means of building demand and commitment for change. This will only have the desired impact if schools and communities have the capacity to make these changes happen. Without attending to the enablers of improvement, incentives for improvement risk reinforcing inequity and further segregating students and schools.

Policy issue 1: Placing student learning at the centre

There are many different ways to improve a school system but a common feature of successful reforms is their intensive focus on student learning. Placing student learning at the centre means having a clear, common understanding of what students should know and be able to do at different stages of their education, and ensuring that teaching and learning resources are aligned in support of these goals. To enable learning, teachers need to know how each student is progressing and have a range of supports to address individual learners' needs and design effective support strategies for those at risk of falling behind. Teachers also need to have adequate time in the classroom for activities that promote learning and know how to use this time effectively. Ensuring coherence across these policies is crucial, as innovations in curricula and teaching methods are unlikely to be successful unless they are supported by appropriate assessment methods and classroom practices.

Clarifying what students should learn

The great degree of autonomy Colombian schools have to develop their curricula poses a significant challenge to national efforts to improve learning. Many stakeholders interviewed during the review visit, from both government and the teaching profession, highlighted the need for much more detail and direction in learning standards in order to raise student performance. Expectations of what students should know and learn vary considerably, not only across regions and municipalities, but across the more than 20 000 individual institutions that make up the school system. Concern over this fragmentation, and the inequalities in learning it may create, have

resulted in a series of local and national initiatives to provide greater clarity on what Colombian students should learn in different subjects and stages. The review team supports these reform efforts and suggests they be further strengthened.

The curriculum is at the heart of any education system (Kärkkäinen, 2012). It defines the objectives, contents and expected outcomes of schooling and defines a country's vision and aspirations for its citizens, its society and its economy. The curriculum is an important tool for teachers, as it specifies what kind of knowledge, skills and values should be taught to students. The curriculum is also the basis for the development of many other learning resources, such as textbooks and instructional materials, as well as for the assessment of student learning outcomes. A high-quality curriculum can be an influential driver of reform across the education system. The process of developing a curriculum, if it is inclusive and carefully planned, can also be a valuable means for forging a shared vision of the future. In Colombia, it could provide a touchstone for the country as it transitions to a new era of peace and greater equity.

The extent of autonomy given to schools in Colombia to set their own curriculum is rare among OECD member economies. Curriculum practices vary considerably across the OECD, but, given the importance and complexity of curriculum development, no country relies on either a purely school-based or a purely centralised approach. In New Zealand, which is perhaps the OECD country with the highest degree of school autonomy over curriculum development, the national government sets the direction for student learning (i.e. vision, values, key competencies, learning areas, achievement objectives and principles) and provides guidance to schools as they design and review their own curricula. Likewise, the existence of a national curriculum does not mean there is no room for local adaptation. In Italy, for example, national student learning objectives can be developed at the school level and schools can devote up to 20% of learning time to issues defined as relevant by local stakeholders, such as local historical events or specific skills to enter the local workforce (OECD, 2013b). The United States, which has introduced common learning standards in core subjects in an effort to improve student performance, still provides space for states and schools to develop local learning objectives. Each country must find its own balance between national consistency and local diversity. What is important for all countries, however, is that those with the responsibility for curriculum development have the capacity to do so, and that all students have equal opportunities to learn and acquire basic skills.

One challenge with a highly decentralised approach to curriculum development is that it can lead to inequalities in student learning, particularly in contexts where socio-economic inequities are already pronounced and

where there are concerns about poor teaching and leadership in schools, as is the case in Colombia. The development of a curriculum is a very complex task which requires considerable expertise, capacity and time. If the curriculum used in schools does not build up students' knowledge and skills in a progressive and coherent way, students might not acquire what they need to advance their learning. This puts students at particular risk in transition between different education levels, and between different schools. School capacity varies widely in Colombia, but tends to be weakest in disadvantaged areas where students are in particular need of well-structured, well-sequenced support to acquire and deepen basic skills. Rural schools visited by the review team reported that they were unprepared and lacked assistance in the development and periodical update of the curriculum, suggesting that their curricula might be outdated and of poor quality. In OECD countries where schools have autonomy over curriculum development, support is provided to teachers and school leaders on how to design content, lessons plans and teaching so that they enable effective learning. For example, Australia, Japan and Korea support schools and teachers to undertake research as part of professional development programmes to help them in developing a curriculum that responds to the needs of students and the local community (Kärkkäinen, 2012).

The review team found widespread agreement among teachers interviewed that a well-defined curriculum and supporting instructional materials could help them in their job. As well as guidance on the fundamental skills and knowledge students need to acquire to progress in learning and in life, teachers require advice on how to understand and translate learning standards into teaching practices and to differentiate the curriculum to address the widely varying needs of students. Support for curriculum implementation is especially important in disadvantaged areas, where teacher preparedness is often poor. One of the hallmarks of the PTA programme is the holistic approach to learning, which provides both learning standards, implementation support to teachers and relevant learning materials (see Box 3.1). Departments and municipalities, such as Bogotá, have also developed their own curriculum and teaching and learning materials in an effort to raise standards and reduce inequities. However, the impact of these initiatives is limited by their focus on a particular education level or region. A nationally co-ordinated approach could be more effective, lead to economies of scale and establish common standards across the country, helping to reduce disparities and ensure greater consistency in the quality of schooling.

A curriculum also provides a framework for developing other key aspects of the learning environment, such as teaching approaches, textbooks and assessment practices. In the absence of a common curriculum, national

and local authorities can find it much more challenging to develop these other drivers of learning. A curriculum provides an important basis for the development of textbooks and other teaching and learning materials. The lack of an official curriculum might explain why only a small fraction of Colombian schools use textbooks (Álvarez et al., forthcoming). A curriculum can also be a powerful tool to help shift traditional teaching methods towards a more learner-centred approach that can better support autonomous learning and other "21st century" skills. This is a stated priority for Colombia, as for all OECD countries conscious of the need to adapt to changes in the economy and labour market.

The curriculum is the cornerstone of a coherent approach to evaluation and assessment (OECD, 2013b). In the absence of detailed national learning objectives, the ICFES has developed its own testing standards to externally assess the performance of schools. There is the risk that, without a common curriculum, such external examinations become a default guide for learning goals, which they are neither intended nor equipped to provide. International research has pointed to the risks associated with the prevalence of testing at the expense of the curriculum, as the former cannot capture the full complexity of the latter (OECD, 2013b). In Colombia, the underperformance of half of students in the SABER tests points both to a mismatch between national expectations and school-level learning standards, as well as the extent of guidance and support that teachers and schools will require to improve student outcomes. The development of a national curriculum could help Colombia to ensure that its students acquire the full range of knowledge, skills and values that all citizens hold to be important.

Using assessment to support students' learning and progression

Assessing students' learning outcomes is important to measure progress towards national learning standards and further improve teaching and learning strategies. In Colombia's current evaluation culture, teachers use assessment mainly in a summative form to summarise the learning that has taken place, in order to record, mark or certify achievements. When students fail to meet expected outcomes, assessment often leads to grade repetition. Assessment is rarely used as a tool to improve teaching and learning practices in schools and address individual student learning needs early on. Supporting teachers to embrace more effective assessment practices would be an important step towards encouraging all students to achieve their full learning potential.

Teachers and parents in Colombia continue to consider that one of the most effective ways to support students who perform poorly in school

assessments is to require them to repeat a year. With large classes and limited training and resources, teachers often lack the tools to take a more individualised and preventative approach to assist struggling students and instead resort to giving them the chance to go over the same lessons again. However, national and international research studies have shown that grade repetition is not an effective means to improve performance: the academic benefits of grade retention are slight and short lived, while it increases the chances of dropping out (Sarmiento, 2006; García, Fernández and Sánchez, 2010; OECD, 2012). Moreover, those who repeat a year take up places that could be used to expand enrolment and/or reduce large class sizes.

The MEN is well aware of the ineffectiveness of grade repetition and has attempted to establish legal limitations to its application in schools (MEN, 2015a). However, these measures have encountered strong resistance from schools and parents in the absence of alternative support strategies for students. To effectively improve student learning, legal measures to limit grade repetition need to be accompanied with a range of support for students and teachers, including additional instruction time and instructional materials. Particularly important are measures to prepare teachers to address diverse learning needs and to detect gaps in skills and knowledge early on. It is both more effective and less costly to target resources to assist students in the early years of schooling, before they become disengaged and when the learning gaps are still small (OECD, 2012).

Student assessment can be an important tool to help teachers identify students who are falling behind early on, develop effective instructional interventions, and engage students and their parents in the quest for improvement. However, classroom assessment is mostly of a summative rather than formative nature in Colombia, which means that the assessment of learning outcomes is not used effectively as a means to foster further learning. For instance, the results of assessments are often communicated to students in the form of a numerical score rather than with detailed information and illustrative examples on their strengths, areas of concern, and recommendations for improvement. Students also do not receive individual results for their participation in three national standardised assessments in basic education, which means that teachers and students lack a clear reference on how well they are performing against national standards (see Policy Issue 3).

To make the most of student assessment tools, many countries have invested considerably in strengthening the capacity of teachers and school leaders to ensure they have the skills to assess learning and, most importantly, develop appropriate interventions and effectively communicate results to students and parents (OECD, 2013b). Assessment packages

combined with hands-on training can be particularly helpful in contexts where teachers have limited pedagogical knowledge and experience. South Africa, for example, has created assessment resource banks with simple-to-use materials that teachers can employ to assess student learning (UNESCO, 2014). By increasing the capacity of teachers and schools to assess and support individual student learning, Colombia could both improve performance levels and reduce inequities in learner achievement.

Making more effective use of learning time

There is considerable evidence that classroom time could be better used in Colombia to support student learning. While students in Colombia will have experienced more hours of compulsory instruction by the end of basic education than those in most OECD countries, a large part of this time will not have been spent on effective learning. Current efforts to enable more effective learning time are focused on the progressive transition from multi-shift schools towards a single, full school day of seven hours for all children by 2025. There is some evidence that the existence of two or three shifts in schools has a negative impact on learning outcomes. Results from SABER, for example, suggest that learning is less effective in the afternoon than in the morning (Bonilla, 2011). However, there are other factors that also detract from learning in the classroom that Colombia will need to address if the significant investment in the full school day is to pay off.

Building upon the lessons of local initiatives to implement a full school day, the national *jornada única* programme is intended to meet a range of social and educational goals. It aims to improve learning outcomes by providing additional time to reinforce mathematics, science and language skills. It seeks to improve student nutrition through the provision of a midday meal and to protect children from external social risks. The programme is further intended to enhance system efficiency, by encouraging certified entities to make fuller use of their human and physical resources. Specific research studies for Colombia show that the full-day school has the potential to generate important gains in terms of reduced grade repetition and dropout rates and increased learning outcomes (García, Fernández and Weiss, 2013; Bonilla, 2011). These findings are consistent with international research which also points to the positive impact of a longer school day in reducing students' exposure to risks outside schools, such as crime, pregnancy, alcohol and drugs (Gromada and Shewbridge, forthcoming).

While the potential benefits of expanding the school day are large, the experience of other countries, such as Chile, shows that lengthening the school day is a very costly initiative that will only yield returns if carefully resourced and designed, and, most importantly, if the extra time is used effectively (Bellei, 2009). The implementation plan for full-day schooling

includes specific provisions on the use of the additional time to strengthen core skills. It also presents the extended school day as an opportunity to reflect on the school's overall curriculum and pedagogical strategies. However, the programme does not appear to pay enough attention to some of the central issues that are preventing teachers and students from making most effective use of learning time.

Research and the review visit point to multiple pressures that detract from quality learning time. The administrative burden that falls on schools and the limited capacity of school leaders to ensure that teachers are present in the classroom (e.g. remediate shortages, replace sick teachers and tackle absenteeism) has been shown to significantly reduce instruction time (World Bank, 2012). These problems are particularly prevalent in rural areas. At the same time, disruptive student behaviour is common and teachers and schools often lack resources to tackle it. A recurrent issue in schools visited by the review team was the difficulty teachers face in addressing societal factors that undermine the learning environment, such as violence, drugs and crime. Teachers receive little pre-service or in-service preparation on how to manage these factors, nor on how to handle a large and very diverse student body with different learning needs (see Policy Issue 2). Poor pedagogical training, and the limited availability of textbooks or practice books, might mean students are obliged to spend a considerable amount of time copying from the blackboard rather than engaged in problem-solving exercises or other more effective learning activities. Providing teachers with better support to manage the classroom reality in Colombia, and reducing the bureaucratic duties that draw their attention away from teaching, would appear to be an essential step towards improving the effective use of learning time.

Colombia also needs to consider how it can provide additional learning time in a way that helps those who need it the most. While more time does not automatically lead to better performance, research indicates that students who are struggling to progress seem to particularly benefit from more time and opportunities to learn at school, especially when support for learning might be lacking at home (Lavy, 2010; Gromada and Shewbridge, forthcoming). OECD countries offer a range of strategies to provide extra time to students so they can catch up with their peers, such as breakfast clubs, remedial classes and summer schools (OECD, 2012). As the Success for All programme in the United States illustrates, additional hours of intensive tutoring for low-performing students in the early grades can be particularly effective in boosting learning outcomes. Such arrangements are not widespread in Colombia, although there are some promising small-scale initiatives. In the Colombian municipality of Manizales, for example, primary school students benefit from additional instruction time

for core subjects and extra teachers and assistants have been recruited to support struggling students. The national government is also piloting the use of trainers from the National Training Service (*Servicio Nacional de Aprendizaje*, SENA) to reinforce core subjects (mathematics and science) with an additional two hours per week. This programme currently benefits 53 000 Grade 9 students. Both the national and local governments should look at how these practices could be expanded to bring additional learning opportunities for disadvantaged students, in particular in the first years of school. This has the potential to bring effective, and cost-efficient, benefits to students who are struggling to learn more quickly than the *jornada única* programme, which will not reach all schools until 2025. When rolling out full-day schooling the government should also pay much more attention to prioritising disadvantaged schools or schools with a large number of pupils from disadvantaged backgrounds.

Policy issue 2: Building a stronger teaching and school leadership workforce

The year 2002 marked a turning point for the teaching and leadership workforce in Colombia. The new law on the teaching profession placed merit at the centre of career progression and introduced merit-based procedures for entry, promotion and retention. These are significant steps that align Colombia with OECD best policies and practices. The government is committed to building on this progress and has made fostering teaching excellence one of the priorities for education reform in the PND. Important milestones on the path to excellence will include: defining quality teaching and school leadership and aligning all teaching policies behind this goal; reviewing initial teacher training and recruitment processes to raise the bar for entry to the profession; enabling teachers to develop their skills throughout their career; recognising and rewarding good performance; and empowering school leaders to be catalysts of improvement in schools.

Ensuring clear standards and effective support

The development of teaching and leadership skills needs to be seen as a continuum that encompasses all phases in a teacher's career, from initial teacher education through to retirement. An important departure point is to have professional standards defining what being a good teacher and school leader means, providing direction to all the different aspects of teacher policy. Raising the quality of teaching also requires increasing the attractiveness, selectivity and quality of initial teacher education, and

ensuring a high standard for entry into the profession. Opportunities for professional development also need to be available throughout teachers' careers, but particularly in the initial years of service which are so important for consolidating effective teaching practices.

Define quality teaching and leadership

The definition of clear professional standards would provide coherence across current efforts to reform teaching careers. In Colombia, there is no national framework of teaching standards, nor a clear statement or profile of what teachers and school leaders are expected to know and be able to do. The formal description of teachers' responsibilities in the 2002 statute is insufficient to define the full range of competencies required for teaching excellence. Similarly, the competencies included in the criteria for the appraisal of teachers and school leaders are not detailed enough, have not become the basis for the development of teaching policies and are not widely recognised as a reference for good teaching within the profession.

An increasing number of OECD countries are using professional standards as the backbone of teaching policy reforms. Standards can provide clear expectations of what teacher education and professional development should aim to achieve, offer a credible reference for making judgements about teacher competence (as in teacher appraisal), and provide the basis for career advancement. The format and content of standards vary considerably across OECD countries but some common elements of effective frameworks can be identified (OECD, 2005). First, teaching and school leadership standards should contain quality criteria or indicators for professional teaching and school leadership practice. Second, standards should recognise the different levels of performance and responsibilities expected at different stages of teachers' and school leaders' careers. Third, standards need to be informed by research and reflect the student learning objectives that the school system is aiming to achieve. Finally, standards need to be developed through a participatory process that involves governmental authorities at all levels, professional associations of principals and teachers, groups of educational administrators, researchers, and representatives from teacher education institutions. This is essential to building a shared understanding of the process and ensuring the legitimacy of the standards agreed. In Chile, for example, teaching and leadership standards have become a positive, basic reference for the profession and the foundation for other teacher policy reforms (Box 3.2). By establishing a common vision of what good teaching school leadership mean for Colombia, standards could provide a valuable tool for improving pedagogical practice and a framework for guiding other training reforms.

Box 3.2. **Professional standards for teachers and school leaders in Chile**

Chile developed professional standards for teachers and school leaders in the last decade. The Good Teaching Framework (*Marco para la Buena Enseñanza,* MBE*)* defines teacher performance standards and serves as a guide to improve teaching professional practice for both beginning teachers and the more experienced. The MBE includes 21 standards grouped into four domains specific to the task of teachers: 1) creating an environment conducive to student learning; 2) teaching for student learning; 3) preparing for teaching: content organisation based on student learning; and 4) professional responsibilities. Each standard of practice is described by performance levels (outstanding, proficient, basic, poor). These are written in behavioural language, which permits both teachers and administrators to translate the standards into actual events in the classroom or into instructional planning. In their appraisal, teachers are provided with feedback on their performance relative to the professional standards. The MBE was developed through a three-year process of consultation between a national commission and the teachers' union.

The "Framework for Good School Leadership" (*Marco para la Buena Dirección*) was developed in 2004 to improve school leadership and impact the quality of institutional management and student learning. It also provides guidance on what is to be expected of school leaders. The framework is organised into 4 areas of professional competency that groups 18 performance and professional development standards: leadership, curriculum management, management of the school atmosphere and coexistence, and resource management. These serve as a common benchmark for the training and appraisal of school principals, other school leaders and technical-pedagogical teachers.

Sources: OECD (2013b), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190658-en; Pont, B., D. Nusche and H. Moorman (2008), *Improving School Leadership, Volume 1: Policy and Practice,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264044715-en.

Initial teacher education

Achieving teaching excellence requires ensuring that those who aspire to enter the profession have the potential and motivation to develop high-quality teaching skills and that they are enabled to do so through well-designed teacher training programmes. There is evidence in Colombia that the teaching profession is not attracting high-calibre students and that many of those who seek to become teachers might lack the basic competencies required to excel. Students who enrol in teacher education programmes tend to have the lowest results across all tertiary programmes in the university entrance examination (SABER 11) (García et al., 2014). In contrast, a common feature of high-performing education systems is that they recruit their teachers from the top tier of secondary graduates (Barber and Mourshed, 2007).

To attract top graduates into teaching degrees, Colombia introduced a scholarship programme in recent years and is currently considering its further expansion through a specific scholarship for top-performing disadvantaged students (see Chapter 5). Scholarships to attract high performing students have had some positive results in other countries. For instance, in Chile, the proportion of students with top scores enrolled in quality initial teacher education programmes almost doubled after the introduction of targeted scholarships (Alvarado et al., 2012). There are additional steps that Colombia could take that could help to draw more high-calibre students into the profession, and deter those who may not have the right skills. Finland provides an example of how stringent admission procedures, which focus on the right qualities and limit the number of places on the basis of performance and a firm projection of teacher needs, could guide entry to initial teacher education. In Finland, the selection process is structured in two rounds: first, a national multiple-choice examination is applied to all candidates to test their numeracy, literacy and problem-solving skills; second, the top-scoring candidates are invited to the following stage of the selection procedure, which is organised by universities and consists of assessing candidates' communication skills, willingness to learn, academic ability and motivation for teaching (Barber and Mourshed, 2007). To attract and retain top graduates, Colombia needs to be more selective in its intake of potential teachers and introduce additional pay and career progression incentives.

As well as improving admissions procedures, Colombia needs to ensure that all teacher training programmes adequately prepare students for entry into teaching. There are several concerns regarding the quality of initial teacher education in Colombia. Primary teachers still only need a post-secondary but non-tertiary qualification, such as that provided by an ENS. The vast majority of OECD countries have raised the requirement for teacher training to a tertiary-level qualification, which signals a higher level of knowledge and skills and can also help raise the social status of the profession (OECD, 2005). Raising the threshold in Colombia, however, would only enhance teacher preparedness if the quality of teacher training provided by tertiary institutions is significantly improved. Only 19% of the tertiary institutions providing teaching degrees in Colombia have received high-quality accreditation (García et al., 2014), raising questions about the standard of training in the majority of education faculties. The results of the university exit examination (SABER PRO) confirm that the skills of future teachers might be of concern. Graduates of initial teacher education programmes have lower critical reading and quantitative reasoning skills, and no higher writing abilities than those of other degrees, while those in accredited universities obtain better results than those in non-accredited ones (García et al., 2014). If teachers themselves have weak numeracy and literacy skills, it is unlikely that they will be able to instil them in their students.

Further reform of Colombia's tertiary education sector, and in particular of the quality assurance system, might address some of these challenges (see Chapter 5) but specific actions will also be needed to improve the content of initial teacher education programmes.

Initial teacher education programmes need to have a practical focus in order to adequately prepare teachers to engage students in the classroom. However, initial training programmes in Colombia tend to have a more theoretical than practical approach to teaching, and universities often have little contact with schools (Alvarez et al., forthcoming). As a result, graduates often lack strong pedagogical methods and skills. International research has shown that practical experience in high-performing schools can be an effective means of providing candidates with a broad understanding of what it takes to be a teacher, including such critical skills as actual classroom teaching and management, student guidance, curriculum and school improvement planning, student- and self-assessment, and collaboration with parents and external partners (OECD, 2005). The absence of a strong practicum component within initial teacher training programmes in Colombia is of particular concern considering that teachers are likely to work in very challenging school contexts and with limited support. Increasing the practical focus of teaching degrees will be important for preparing Colombia's teachers to enable student learning in large classrooms with a wide range of ages and abilities.

Entry into the profession

One of the major advances of Colombian teaching policy was the introduction of a competitive and meritocratic procedure for recruiting new teachers and school leaders in 2004. This has been an important step forward in a system in which the process for recruitment was not transparent and there were no mechanisms to guarantee the quality of candidates and prevent corruption over appointments. To ensure that the best candidates are recruited, the selection procedure could place greater emphasis on assessing the skills and attributes that effective teachers and school leaders should possess rather than focusing only on content mastery. Defining professional standards would help guide this assessment. In addition, the proportion of teachers occupying provisional vacancies needs to be kept to a minimum to ensure that provisional positions do not become a back door into the profession.

Structured induction programmes are an important way to consolidate the skills of new teachers. They can help new teachers adopt good practices, face challenges for which they might have not been adequately prepared, and channel their motivation towards improvement. Research in several countries has shown that mentoring and induction for beginner teachers can improve teacher commitment and retention, teacher classroom instructional practices, and student achievement (Ingersoll and Strong, 2011). A wide

array of measures have been adopted in OECD countries to steer the professional and personal growth of new teachers during their first years of service (e.g. supervision, coaching, induction programmes and reduced workloads) (OECD, 2012). In Colombia, the MEN has taken steps to introduce a two-year mentoring programme for new teachers but so far the initiative has only been implemented in 7 out of Colombia's 95 ETCs. The introduction of well-structured induction programmes could ensure teachers make a successful transition from the largely theory-based training provided by initial teacher education institutions to the practical realities of the classroom.

A probation period can serve as a valuable mechanism for ensuring that teachers have the skills and knowledge needed before graduating to a permanent post. Although teachers in Colombia do undergo a probation period, there are indications it is not as effective as it could be. First, the probation period is not accompanied by an induction programme. Second, the probation period of between 4 and 10 months is not long enough to assess new teachers' potential. The ideal length by international standards is between one and two years (OECD, 2005). Finally, the high proportion of new teachers passing probation raises questions over the extent to which teaching skills are appraised and probation used effectively.

Continuing professional development

Professional development opportunities enable teachers to enrich their knowledge and skills throughout their career. In Colombia, access to ongoing professional development is of particular importance given concerns about the quality of initial teacher education programmes, the large number of teachers that entered the profession without a merit-based selection process and are not subject to appraisal, and the changing demands of a school system that is increasingly focused on learning outcomes. Evidence from Colombia, and experience from across OECD countries, suggests several ways in which professional development opportunities could be improved to better support teachers in their work.

The government's main strategy to develop the skills of in-service teachers since 2010, the PTA programme, seeks to increase the impact of professional development through a school-based strategy (see Box 3.1). Such an approach is also in line with trends in professional development in OECD countries, where school-based and peer learning methods are increasingly regarded as one of the most effective means of enabling teachers to improve their practice. The programme has already been scaled up, reaching about half of all teachers in the transition year and primary education by 2014 (MEN, 2015b). One of its strengths is the focus on low-performing schools and early years education, which is where better teaching can have the

greatest impact on learning outcomes. Another valuable aspect is that facilitators stay in the assigned school for at least one year in order to have greater opportunities to penetrate the culture of schools and spur sustainable changes. Despite these positive design features, however, the programme has not yet been shown to have had a significant impact on student performance in national assessments. A recent evaluation identified some potential reasons for this including inconsistencies in implementation, such as failing to recruit high quality teachers as facilitators; inadequate training and support provided to facilitators; and the limited focus on changing teaching methods and practices in the classroom (UNIANDES, 2014 in Álvarez et al., forthcoming). These are issues that the review of the PTA programme, currently under way, will need to address.

It is difficult to assess the effectiveness of the various short professional development opportunities that constitute the most common form of in-service training available to teachers in Colombia. These include a wide range of activities provided by many different actors (e.g. the MEN, departmental and municipal governments, faculties of education, the teachers' union and NGOs). There are no regulations or co-ordination of the provision of these activities. Each provider tends to determine the professional development activities they offer independently. The lack of co-ordination inhibits quality assurance. For example, it means that there is no means of preventing the use of outdated pedagogical methods. This fragmentation is compounded by the absence of teaching standards. Moreover, traditional short professional development opportunities, which are typically delivered through a cascade methodology and take place outside the school, tend to be more theoretical than practical and disconnected from the actual needs of teachers. They are perceived as ineffective at helping teachers improve their practice in Latin American countries (Bruns and Luque, 2014). A stronger approach to professional development opportunities, with clear standards and objectives for different courses and quality controls, could increase their impact on teaching. Greater co-ordination would also enable economies of scale and facilitate the creation of communities of practice.

The cost and impact of different alternatives matters, especially when seeking to effect system-wide improvements. Scholarships for teachers to undertake undergraduate or master's programmes are often used in Colombia, as well as in other Latin American countries, where a tertiary degree has high social status (Bruns and Luque, 2014). While these initiatives may benefit individual teachers and schools, and help raise the attractiveness of the teaching profession, their high costs need to be balanced against their capacity to create improvements across the school system. The number of potential beneficiaries is typically very small, given the costs of tertiary education. The 2015 initiative to provide 3 000 teachers with a scholarship to pursue a master's degree will benefit about 2% of the teaching workforce at

an estimated cost of over USD 18 million (August 2015), which is equivalent to over one-third of the PTA budget (MEN, 2015b).

Scholarship programmes also need to be carefully designed so that they address the actual needs of teachers in schools and help them to improve learning outcomes for their students. The present initiative places welcome emphasis on enabling school improvement by encouraging participating teachers to learn how to lead change in the classroom and including school-based activities. This is not only beneficial to participants but could also improve teaching degrees by connecting universities to the realities of schools. However, it would be much more effective if the programmes were based on the results of teacher appraisals. Not using teacher appraisals to inform either the uptake or the supply of professional development deprives Colombia of a means of ensuring that training opportunities meet teacher needs. Not only does this mean that development opportunities might not contribute towards good teaching, but also that there is lack of continuity between initial and in-service teacher training, making it difficult for teachers to progressively develop their skills or pursue specific career objectives.

Another important aspect in the design of scholarships is determining who is eligible. The present initiative focuses on "excellent teachers", based on improvements in their schools' SABER 9 and 11 tests. While this can send a message that teaching excellence is valued, teachers in schools with lower levels of performance growth are likely to be the ones most in need of improvement and for whom further training could achieve the greatest impact. The selection might have a demotivating effect if it is perceived as unfair, which is a risk as it does not take other factors that influence student performance (such as school resources and students' background) into account. In sum, the cost-effectiveness of scholarship programmes need to be considered alongside other initiatives to reward teacher performance, especially given the overall shortage of funds available in Colombia for quality improvements.

Using appraisal to foster high-quality teaching

Another major advance of the 2002 reform was the introduction of regular cycles of teacher appraisals by school principals and voluntary national appraisal for career advancement. These are important steps as they provide a clear signal that continued improvement is valued and that career progression is based on merit. Further refinements to these appraisals could be made, however, to reinforce their potential in assessing what teachers know and can do, how they are progressing, where they would benefit from additional support, and how their contribution to the school as whole might be enhanced. The experience of OECD countries has shown that an effective

appraisal system requires careful attention to its consequences as well as key elements of its design (who is appraised, by whom and on what basis) (OECD, 2013b).

The establishment of clear criteria and use of a wide range of evidence are important to ensure that appraisal is accurate and accepted by the profession. The lack of professional standards in Colombia implies that there is no common measure nor common understanding of teaching quality across the country. Another challenge is that the evidence base for appraisal appears too narrow to enable a well-rounded judgement of teacher performance. Notably, in appraising teachers, school leaders do not observe classroom practice and they use other sources of information (e.g. portfolios, student assessment results and parental surveys) largely at their discretion. The reform of the voluntary national appraisal in September 2015, which introduced a videotaped classroom demonstration as the main source of evidence, is a positive step towards opening up Colombian classrooms. However, further steps are needed to ensure that the full spectrum of teachers' responsibilities are evaluated on the basis of adequate evidence and clear, commonly understood criteria.

Appraisal needs to have consequences if it is to have a positive impact on teaching and learning quality. The voluntary national appraisal can lead to higher remuneration for successful candidates and, since September 2015, unsuccessful candidates are also required to undergo a remedial course. However, the mandatory appraisals by school principals do not lead to structured feedback or training opportunities to improve teaching practices and have a very small impact on external appraisals. There are limited consequences for consistently poor appraisal results. In some OECD countries, an unsatisfactory appraisal can have an impact on career advancement or salary levels, and there are clear paths out of the profession for those with very poor teaching skills or high rates of absenteeism (OECD, 2013b).

Capitalising on the potential of all staff is an important way to accelerate and deepen the transformation of the school system. External appraisals could also be further used to capitalise on the potential of staff, by identifying those who could act as mentors for new teachers, future school leaders or facilitators for the PTA programme, and help those with weaker teaching skills to move to more administrative positions or early retirement schemes. Singapore provides an example of how teacher appraisal can be used for long-term career planning and promotions in a way that benefits the whole school system. Teachers are assessed with regard to their potential for three professional career tracks: 1) the teaching track, which allows teachers to advance toward the level of "master teacher"; 2) the leadership track, which allows teachers to take on management roles in schools or in the MEN; and 3) the senior specialist track, which allows teachers to support other teachers as pedagogical specialists (OECD, 2013b).

To be fair and effective, all teachers should be subject to an appraisal process. In Colombia, more than half of all teaching staff are not subject to any appraisal, including teachers under the old statute and those in provisional positions. Yet, these are the teachers who could particularly benefit as most were not recruited through transparent and merit-based procedures. Making the appraisal mandatory for all teachers could be an important step in Colombia to improve the quality of teaching and hold all teachers to the same standards.

Rewarding teaching quality

Several initiatives have been introduced in recent years to improve overall remuneration levels, provide incentives for good performance and improve working conditions for teachers in Colombia. These are intended to address concerns about the status and attractiveness of the profession, and its ability to attract, retain and advance high-performing individuals. Teachers in public schools currently earn about 18% less than professionals in other sectors such as doctors, economists, lawyers or engineers, and salary differences between the lowest and the highest paid are also smaller than for other professions (García et al., 2014).

The 2002 reform of the teaching profession introduced a new remuneration scale with two positive aspects. First, external appraisal replaced length of service as one of the two major factors deciding career progression and remuneration, alongside educational attainment. This gave greater importance to their actual performance and more effective measures of what makes a difference in classrooms. Second, overall remuneration levels and speed of progression were significantly increased on teachers' successful participation in the external appraisals. Despite these positive changes, however, low participation and success rates suggest that the voluntary national appraisal might not be used as intended. If appraisal is used as an instrument to manage staff costs by setting the bar for promotion too high, it will not fulfil its role in encouraging and rewarding excellence, and is also likely to have a demotivating effect on teachers and weaken trust in the appraisal system.

The introduction of an annual bonus for staff in schools meeting improvement targets in the Synthetic Education Quality Index (ISCE) is a recent attempt to provide incentives to foster teaching improvement. Bonuses can be attractive for teachers in countries with low remuneration levels, such as in Colombia, but there is still no conclusive evidence on their effectiveness at improving teaching practice (Bruns and Luque, 2014). At the time of writing, it is too early to evaluate the potential effects the scheme might have on teaching performance and the school system but some aspects of its design are worth mentioning. The bonus is not based on a comprehensive appraisal

process but on a multidimensional indicator (ISCE), which might capture performance better than the results of student assessments alone, but might fail to consider the actual improvement efforts of individual staff as long as these are not reflected in the index. The fact that all teachers in a school receive the same bonus can incentivise collective improvement efforts but also means that good and poor teaching will be rewarded equally. Careful consideration is needed over whether the bonus based on the ISCE is the most effective incentive to improve performance compared with other options, such as a bonus based on individual staff appraisal, as is used in countries such as Chile and Singapore.

A renewed focus on teacher remuneration could also reduce the need for additional sources of income that can lead teachers to take on heavy work schedules which might hamper their performance in the classroom. Despite the lack of reliable data on teachers' employment outside the public education sector, anecdotal evidence suggests that some teachers hold another job either in education (e.g. in a private school or tutoring for SABER 11) or in other sectors. A heavy teaching load or additional job leaves little room for teachers to engage in other activities at the school such as collaboration with colleagues, reflection on their practices, mentoring of less experienced teachers, communication with parents and professional development. The fact that teachers are only expected to stay on the school premises for six out of their eight working hours might also limit their engagement with students and the time actually spent on their teaching duties. Further progress on teacher remuneration will help to ensure that teaching is well valued in Colombia and that those who have responsibility for one of the nation's most important assets – its children – are adequately rewarded and recognised.

Strengthening school leadership

School leadership has received limited attention in the ambitious teacher reforms undertaken in Colombia in the last decades, but there is an emerging debate in the country about the roles that principals can play in raising education standards. In OECD countries, school leadership is considered one of the most direct means of improving the quality of teaching and thus student learning. Acting as a key intermediary between policy and practice, school leaders can help teachers and other school staff to improve their practices and reshape school processes, cultures, attitudes and behaviours (Leithwood et al., 2004; Pont et al., 2008). Strong school leaders can also play an important role in mentoring other leaders, expanding good practice and fostering systemic improvement. In Colombia, where many schools are isolated and might receive limited local government support, school principals need to take the lead in delivering change. The important responsibilities given to schools to develop their curricula also make school

leaders, and their capacity, pivotal to the success of national reform efforts. Given the relatively small number of school leaders and their potential impact, investments in strengthening their skills could be one of the most effective, and efficient, ways to generate systemic improvements.

An important first step will be to rethink the role and distribution of school leadership in Colombia. The responsibilities of school principals are presently mainly administrative and they have no clearly defined responsibilities for observing classroom practice, providing guidance to teachers and promoting better teaching practices in the school (Weinstein, Hernández and Muñoz, 2014). In contrast, an increasing number of OECD countries are placing far more emphasis on the pedagogical aspect of school leadership as a critical driver of school improvement (Pont et al., 2008). The limited focus on how principals can support teaching and learning in Colombia might be partly explained by the fact that school principals often oversee a number of individual school branches, in particular in rural areas where branches can be numerous and spread over large distances. Various other factors, such as the acute shortage of resources in many schools or the large number of administrative requests, also draw principals in Colombia into management functions.

School principals in Colombia also tend to bear most of the leadership responsibilities on their own. A trend in OECD countries is to recognise that strategic and pedagogical leadership cannot be exercised by one person alone, and that school leadership teams are the basis for increasing leadership capacity and fostering more sustainable improvements (Pont et al., 2008). A step in this direction in Colombia would be the definition of clear roles and expectations for each leadership position through professional standards and formal recognition through career structures. Australia, England (United Kingdom), New Zealand and Singapore, for example, differentiate several roles or stages in leaders' career structure. In England, for example, there are five stages in a school leader's career ladder: 1) emergent leadership, when a teacher is beginning to take on management and leadership responsibilities; 2) established leadership, comprising assistant and deputy principals; 3) new school principals; 4) advanced leadership, when leaders look to mature in their roles; and 5) consultant leadership, when they take on training, mentoring and other responsibilities (Pont et al., 2008).

Clearly defining expectations for school leaders will help Colombia to improve other defining policies for the profession, including recruitment, professional development, appraisal and remuneration. The recruitment process and the development of leadership skills are of particular importance, as good teachers might not automatically become good leaders. In Colombia, the selection of school leaders, as with teachers, is mainly based on a

written exam, which places greater emphasis on their knowledge rather than leadership skills. However, being abreast of the laws and regulations governing schools does not automatically mean that they will be good pedagogical leaders. Moreover, school leaders are not required to participate in any professional development courses that would enable them to further improve their leadership potential.

The programme Transformative School Principals (*Rectores Líderes Transformadores*) is a promising initiative to strengthen leadership skills through mentoring and participation in a professional learning community (Box 3.3). Such new forms of professional development based on peer learning are increasingly supported in OECD countries and a growing body of evidence shows the effectiveness of networks and communities of practice in helping school leaders develop their skills, acquire tacit knowledge about the responsibilities of the position, build confidence, and break the professional isolation characteristic of the job (Weinstein and Hernández, forthcoming). Peer learning can take different forms such as structured conversations in which an experienced school principal mentors a newly appointed one, or where principals regularly share their successes and failures in a small group. Professional development courses, peer learning opportunities, professional networks and other initiatives to develop leadership skills could help Colombia to create a stronger culture of improvement in its schools and use the autonomy provided by decentralisation as a positive force for change.

Box 3.3. **Transforming school leaders to transform schools**

In 2010, the business sector partnered with the Ministry of Education and academics to create an innovative programme, Transformative School Leaders (*Rectores Líderes Transformadores*), to foster the development of leadership skills in public schools. The programme clarifies the competences that school principals need to successfully perform their pedagogical, management, administrative and community responsibilities. It targets school principals and the whole leadership team. As part of the programme, school principals participate in four intensive courses over a period of 10 months for a total of 40 hours of training per week and 160 over the whole process. After the training, the leadership team prepares a report on the lessons learnt and their school transformation plans. During the following two years the team receives technical guidance and support as they implement the school transformation plan. In 2015, the initiative was present in five municipalities (8% Bogotá, 100% Itagüí, 28% Manizales, 35% Medellín, 75% Cali) and three departments (15% Cundinamarca, 38% Antioquia, 61% Atlántico).

Source: ExE (2013), *Rectores Líderes Transformadores: Guía General del Programa*, Fundación Empresarios por la Educación (Foundation of Businesses for Education), Bogotá.

Policy issue 3: Improving schools to provide all students with equal learning opportunities

Colombia still has progress to make to ensure all students have access to high-quality learning opportunities. Persistent gaps in enrolment and completion remain, and there is considerable scope for quality improvement in most schools. Colombia has a higher proportion of children failing to complete basic education and acquire basic skills than any OECD country. The quality of schooling is a particular concern in rural areas, where student outcomes are especially low and dropout rates high. Colombia could reduce equity gaps in student learning in three ways. The first is through concerted efforts to improve the quality of teaching and learning in disadvantaged schools. This requires tackling the factors – low parental engagement, school segregation and inadequate attention to the quality of learning in flexible modalities – that weaken school and student performance. The second is through more equitable and efficient resourcing of schools to ensure that all schools have at least the minimum resources needed to deliver education, and that schools serving the most disadvantaged students receive additional resources to offset obstacles to student learning. Finally, external assessments need to provide schools with better tools to foster improvement. Improving schools, particularly disadvantaged ones, is vital if education is to be an engine for inclusive growth and social cohesion in Colombia.

Shifting the focus from schooling to learning for all

There is little doubt that the expansion of enrolment in basic schooling has been one of the greatest achievements of the Colombian education system in recent decades. It is also clear that the introduction of flexible models has been an important part of this success story, enabling many students in rural and marginalised areas to be the first in their family to get an education. However, the large number of students leaving school without basic skills and the growing performance differences between schools, as measured by national and international assessments, suggest that there is still considerable room to improve the quality of education services, particularly in the most disadvantaged areas, to ensure that all students have equal opportunities to learn. This implies rethinking the use of flexible modalities and greater efforts to reduce the socio-economic stratification of schools. Awareness campaigns and efforts to increase parental engagement in the education of their children can also be beneficial both for expanding enrolment and raising expectations of learning outcomes from schooling. In parallel, more proactive measures are needed to reach out-of-school children and overcome the remaining barriers to universal access and completion of basic education.

Improving education in rural areas

The use of flexible modalities has facilitated the rapid expansion of education services, particularly in rural and remote areas, but a range of concerns have arisen on the quality of education they provide. A recent national review of the main flexible models has underlined that the capacity for implementation and the results they achieve vary greatly (Econometría/ SEI, 2014). One concern relates to the limited capacity of certified entities to identify the most suitable model for a specific population and effectively implement it. Weak local management is compounded by the proliferation of models and the difficulty of creating pathways between them and between flexible models and traditional schooling to enable students to move into formal education and progress onto higher levels of learning. The poor preparation of teachers and lack of resources is another issue of concern. The post-primary model, with one or two primary school teachers having to cover the whole of the lower secondary curriculum, illustrates the limitations in the quality of education that can be provided. The *Escuela Nueva* model has shown more potential to foster positive learning outcomes than both other rural education modalities and many conventional schools (Box 3.4), but a review found that many of the learning materials and activities built into the programme's methodology are outdated, not relevant for all students and fail to facilitate the development of complex problem-solving skills (MEN, 2014).

Box 3.4. ***Escuela Nueva*, a Colombian innovation**

Developed in the mid-1970s, the New School (*Escuela Nueva*) is one of Colombia's most globally well-known educational innovations. The *Escuela Nueva* has aimed to universalise rural primary school and has been implemented in more than 20 000 school branches to reach approximately 40% of Colombia's rural school children. Classrooms are multi-grade and students advance in their education at their own pace, while teachers move away from traditional teaching to facilitating student learning. This student-centred methodology employs a variety of innovative pedagogies to promote active, participative and co-operative learning; develop analytical, creative and research skills; and support self-esteem. Four key components are: 1) a curriculum which provides teachers with a unique planning tool and the opportunity to adapt it to the local context and students' interests; 2) active engagement of family and community in school life; 3) teacher training in the use of active pedagogies through professional networks, in-service training and classroom observation; and 4) encouragement of school leaders to take greater responsibility for results and to create a positive attitude towards advising and supporting teachers.

Evaluations of the model have consistently shown that it can help increase attendance, boost performance scores on national assessments, reduce dropout and grade repetition rates, and improve non-cognitive outcomes such as stronger civic learning and democratic values.

Box 3.4. ***Escuela Nueva*, a Colombian innovation** (*Continued*)

The implementation and success of the programme, however, appears to vary by region, due in large part to the sense of ownership over the programme and commitment of children, teachers and communities. The coffee producing department of Caldas provides an interesting example of how a community, in collaboration with the Coffee Growers Committee, has adapted the *Escuela Nueva* model for secondary students to meet local education goals. Manizales, the capital city of Caldas, provides another interesting innovation, adapting the model for urban areas in 38% of public schools in 2015. With the support of the Luker Foundation, the city launched the Active Urban School (*Escuela Activa Urbana*, EAU) in 2002 as a response to the high dropout rates. The EAU focuses on targeting instruction to the needs and learning paces of students, strengthening schools and building bridges with the community and some preliminary data suggests it has led to improvements. It might also help explain why Manizales scored the highest of the four Colombian participating cities in PISA 2012 (Puryear et al., 2014). The success of the New School in Colombia has prompted the design of similar programmes in other countries such as Brazil, India, Mexico and Viet Nam.

Sources: Fundación Escuela Nueva (n.d.), Fundación Escuela Nueva website, www.escuelanueva.org (accessed July 2015); Puryear, J.M, F. Barrera-Osorio and M Cortelezzi (2014), *Escuela Activa Urbana: Informe de Evaluación Externa*, Inter-American Dialogue, www.fundacionluker.org.co/new/descargas/Informe_Preal.pdf.

In the immediate future, it will be important for Colombia to introduce measures to address weaknesses identified in the current flexible models. The required expansion of the school network to meet plans to make upper secondary education compulsory (see Chapter 4) provides an opportunity to develop a new long-term strategy for education in rural areas. It should establish clear criteria for the size of schools, review the education models used, include measures to foster collaboration between them, and set time-bound targets to raise learning standards in disadvantaged rural communities and narrow the disparities with urban areas (see Chapter 4). As countries that have made strides in transforming rural education have shown, this needs to be integrated within a broader socio-economic regional development strategy and backed by adequate resources. Colombia's success in raising learning outcomes in rural areas will be decisive to meeting national education goals and wider economic objectives.

Reducing school segregation

Another factor contributing to learning inequities in Colombia is the socio-economic stratification of schools. This is a common concern in Latin American countries, where levels of income inequality and residential segregation are very high. In Colombia, the public sector mostly caters to

students from low-income families. The city of Bogotá, which is home to one-sixth of the Colombian population illustrates the issue. Its Annual Statistical Report indicates that virtually all (99%) of the primary and lower secondary students in public education were from the three lowest socio-economic groups (status levels 1, 2 and 3 out of six) in 2013 (Secretaría de Educación de Bogotá, 2014). It did not report the equivalent proportions of low and high-income students attending private education or the level of socio-economic diversity in schools. However, analysis of a sample of upper secondary students in Bogotá in 2009 shows that about 80% of students from status level 1, more than 50% from status level 2 and only about 30% from status level 3 were enrolled in public education (García and Quiroz, 2011). These data confirm that the choice of public education is strongly inversely correlated with the socio-economic background of students.

International evidence has shown that segregation not only weakens student performance but also undermines social cohesion (OECD, 2012). The concentration of disadvantaged students in the same schools compounds factors that hamper performance (such as poverty and low levels of parental education) to curtail their learning opportunities even further. Schools with a large proportion of children from disadvantaged backgrounds tend to have a less positive learning environment, with students who have a wider range of abilities, receive less parental support and encouragement, and are more vulnerable to negative social pressures such as violence, crime and early pregnancy. Socio-economic segregation is likely to lead to unequal access to the best teachers and other resources unless strong policies are introduced to counter this risk (Lupton, 2004). Schools with high rates of disadvantage, which are most in need of well-trained and motivated teachers, struggle to attract and retain qualified staff. Segregation also deprives poor students from the beneficial peer effects of learning alongside children from more advantaged backgrounds who could broaden their educational and professional expectations.

Reducing school segregation, however, does not appear to be a priority in Colombia's national and local education plans. Some actions which have been taken to improve the learning environment in public schools (smaller class sizes, more resources, specific educational projects) might make them more attractive to better-off families, reducing the perceived need for private schools. Vouchers for students from low income families to attend private schools have been used to expand access to school in several cities such as Bogotá, Cartagena, and Medellín at a time of rapid expansion of enrolment. These have had the additional advantage of reducing school segregation. Within public education, OECD countries commonly use measures to balance equity criteria with the right of parents to choose the school that they want their children to attend. These include redrawing catchment areas, using quotas or lotteries for enrolment, forbidding schools to select students or charge additional fees, and providing more information and transport

options to the most disadvantaged parents (OECD, 2012). To significantly increase the social mix in schools, Colombia will also need to tackle income inequality and the strong residential segregation observed in urban areas. Local indicators of the level of school segregation could also be widely disseminated to trigger a debate on its negative effects on student learning and social inclusion.

Reducing the number of out-of-school children

Improving access to education for disadvantaged students, and enhancing the quality of education they receive, will be central to national efforts to close enrolment and retention gaps. Initiatives to expand enrolment have placed considerable focus on financial measures to decrease the costs of school attendance and provide incentives to stay on in the education system. Evaluations have shown that these have been effective in increasing school attendance. For example, an evaluation of the impact of the abolition of school fees in Bogotá found that the probability of enrolment in basic education for the poorest individuals increased by 3%, and the effect was larger for those outside the school system (Barrera, Linden and Urquoila, 2007). The conditional cash transfer programme More Families in Action (*Más Familias en Acción*) has also had a positive and significant impact on enrolment rates (see Box 1.3 in Chapter 1). The provision of financial incentives, however, is resource intensive and the effectiveness of such programmes needs to be periodically reassessed to ensure they are having maximum impact (Slavin, 2010). Evidence suggests that there is considerable scope, for example, to improve the effectiveness of More Families in Action (see Policy Issue 2 in Chapter 4).

In addition to general programmes, more proactive, targeted efforts are likely to be needed to reach the large number of children who are still out of school. In 2011, this amounted to about 15% of 6-year-olds and 12% of 14-year-olds (UNICEF, 2014). The programme School Seeks the Child (*Escuela Busca al Niño*) is a promising initiative to ensure that all children enrol and then stay in school. It comprises an array of strategies to find those who are outside the system (e.g. home visits and recreational activities), support and follow up those who decide to enter or go back to school, help teachers to foster an inclusive learning environment, and raise awareness amongst families on the value of education. The initiative has progressively grown in scale and impact, with more than 10 000 children identified and about 5 500 enrolled in 5 departments in 2014 (MEN, 2015b). Efforts to expand this and other similar initiatives, as well as to improve information systems and strengthen the social mobilisation for schooling, are likely to enable students who are outside of the school system to be identified and lead to more effective measures to enrol and keep them in school. Personal identification numbers can be a useful instrument to identify students at

risk of dropping out on the basis of key predictors (e.g. academic failure, truancy, socio-economic background) in schools where information can be electronically registered. It could also help to keep track of students' records given Colombia's significant numbers of displaced people. In the Netherlands, for example, the Personal Identification Number has played a key role in ambitious strategies to tackle dropout rates by providing reliable and timely information to schools, municipalities and regions to prioritise their actions to those at risk as well as to hold them accountable against reduction targets (OECD, 2012).

The success of strategies to raise participation in schooling will depend considerably on the extent to which parents value and are engaged in the education of their children. Perceptions of the value and quality of education are considered an important factor influencing attendance and dropout rates in Colombia (Ricardo, 2014). In the 2014 Survey on the Quality of Life (*Encuesta Nacional de Calidad de Vida*), 37% of 10 to 17 year-olds who are outside of the education system indicated that this was due to their lack of interest or expectations from education (Sarmiento, 2015). These perceptions are likely to be influenced by the opinions of their parents, many of whom will not have attended or completed school themselves. Disadvantaged parents in Colombia, as in OECD countries, also tend to be less involved in their children's schooling. However, research has shown that engaged parents encourage more positive attitudes towards school; improve homework habits; reduce absenteeism, disengagement and dropout; and enhance academic achievement (OECD, 2012).

Several initiatives have aimed to raise public awareness about the importance of education in Colombia, such as the National Education Excellence Day campaign. Yet, the review team formed the impression that there was scope to do more to strengthen parental support and engagement in their children's education, particularly at the school level. OECD countries have developed a range of initiatives that Colombia could consider (OECD, 2012). In France, for example, parents receive clear guidelines in the form of a toolbox on the schooling their children will receive and how best to support them, and are invited to participate in three meetings at the school during the school year, on topics such as school organisation, helping with homework and sleeping patterns. In Ireland, home-school-community liaison co-ordinators organise locally based activities to encourage greater contact between parents, teachers and local groups to tackle issues in the community that impinge on learning, with a particular focus on disadvantaged students. In the Netherlands, specific school-level initiatives are devoted to parents from migrant groups, including home visits by teachers, creating a room for parents in the school, sometimes in combination with the provision of courses for parents, and the creation of parent information points in the school. Programmes to improve adult literacy skills, which Colombia is expanding in

a drive to eradicate adult illiteracy, provide an additional platform to improve the ability of parents to support their children's schooling.

Allocating resources more equitably and effectively

How resources are allocated across schools is closely associated with performance and equity. Colombia has taken steps to channel additional resources towards more disadvantaged regions and schools with a view to improving access and raising standards. This section examines these policies and how they could be enhanced to address the resource gaps that still hamper the educational progress of many students. It looks in particular at the allocation of human resources (teachers and school leaders), which constitute the bulk of education expenditures and have the greatest impact on learning. While the review team considers that system-wide improvement in Colombia is likely to require an overall increase in education spending (see Chapter 1), the present focus is on gains that could be achieved within the current budget through greater efficiency and equity.

International research indicates that the absence of basic teaching and learning resources is detrimental to student performance. This is particularly the case for students from poor families, who are less likely to receive additional support from their home environment. A study of 15 Latin American countries found that basic infrastructure and services (water, electricity and sewage) as well as instructional facilities and materials (e.g. sport facilities, laboratories and libraries) correlated with student performance, even when controlling for the socio-economic status of students and schools (Murillo and Roman, 2011). In Colombia, there are indications that a significant number of schools lack the minimum resources for learning, but the limited information available on individual schools hampers the ability of national and local authorities to tackle this challenge. Self-reported data by school principals in PISA 2012 suggests that a significant number of 15-year-old students are in schools where shortages or inadequate resources hinder the school's capacity to provide instruction: more than one-third report shortages of qualified teachers, two-thirds shortages of instructional materials, and half inadequate school infrastructure, compared to less than 20%, 33% and 35% respectively in OECD countries (OECD, 2013a). The availability of information on the teaching and learning resources in individual schools, however, is limited by Colombia's multiple funding, governance and monitoring systems, and there are questions as to the accuracy and timeliness of data collected through local and national surveys of schools (see Chapter 1). Some steps have already been undertaken to improve the quality of information on schools, such as a current assessment of the state of school infrastructure and audit of staff and student numbers. However, it will be difficult to improve the equity and efficiency of school funding in Colombia without better data on school resources and needs, in

particular in the most underdeveloped, rural regions of the country, where information gaps are greatest.

Ensuring that all students have access to equal learning opportunities requires funding schemes to be responsive to the different socio-economic profiles and varying needs of students and schools (OECD, 2012). Colombia has sought to refine the formula for distributing national resources across departments and municipalities to better reflect the costs of education in disadvantaged schools and regions. However, a recent study suggests that the redistributive effects of the General Participation System (*Sistema General de Participaciones*, SGP) have actually decreased over time, with the difference in resources received by the poorest and richest departments falling from 27% to 13% between 2005 and 2013 (Álvarez et al., forthcoming). Moreover, the scope for using the SGP to improve the distribution of resources is limited by the fact that most funds are absorbed by staff costs. Unless it is able to reflect the actual per-student costs, a per-student financing scheme is unlikely to lead to greater equity and efficiency. Similarly, the review team was informed that an increasing amount of resources is distributed to certified entities through contests or match funds, which can increase disparities across regions in the absence of equity criteria as the most disadvantaged areas cannot compete on an equal footing.

The certified entities have considerable autonomy for deciding how the resources they receive are allocated across schools under their responsibility. The criteria for distributing funds at the departmental or municipal levels are not made public, and therefore it is difficult for either the national government or local citizens to monitor whether resources are equitably distributed across schools. The government has sought to increase the effectiveness of national resources to leverage improvements at the school level by allocating an extra monthly allocation of the SGP to those that perform better in key indicators. However, unless the school context is taken into account when rewarding performance gains there is the risk that this additional allocation will have a demotivating effect on the most disadvantaged schools and might actually deepen inequities. The focus on efficiency in the distribution of resources is welcome given the resource constraints that Colombia faces, but equity needs to be placed at the forefront to ensure that all children have an equal chance to learn.

Targeted programmes are a complementary way to allocate additional resources to specific groups of schools. The use of targeted programmes is common in Colombia, and often combined with support on how to make the most of additional resources. The National Reading and Writing Plan (*Plan Nacional de Lectura y Escritura*, PNLE) is an example of such an integrated initiative, which both distributes learning materials to schools and provides training to teachers on how to use them. The use of targeted programmes to support the most disadvantaged schools is also common in OECD countries. Evidence from the Focused Intervention Program in

Ontario (Canada) and the Success for All programme in the United States, for example, show that well-designed targeted programmes can be an effective means of lifting school performance (OECD, 2011; Slavin and Madden, 2010). Looking at international experience, there are measures that Colombia could take to increase the impact of targeted programmes which should also be informed by more rigorous evaluation. Colombia might also consider reviewing the overall number and scope of existing programmes. Fewer but better integrated and targeted programmes could have a greater impact. For instance, merging the PNLE and the PTA "Let's all Learn" initiative could increase the resources available in schools while reducing the administrative burden. Defining the programme target also requires careful consideration, as too wide a scope might reduce its impact, particularly when budgets are constrained. The PTA is intended to benefit half of all students in Colombian primary schools; a more targeted approach, focusing on the most disadvantaged schools in regions with the weakest local capacity, might have a greater impact.

Staff salaries make up the bulk of expenditure and the way in which teachers and school leaders are distributed across schools is one of the most important factors influencing student performance. Most OECD countries try to allocate at least an equal, if not a larger, number of teachers per student to disadvantaged schools (OECD, 2013a). In the Netherlands, for instance, schools with a high proportion of disadvantaged students have on average about 58% more teachers per student and also more support staff (Ladd and Fiske, 2009). International evidence also points to the importance of allocating high-quality teachers to support the most disadvantaged and poorly performing students and schools (OECD, 2012). In Colombia, municipalities with high levels of poverty, rurality and violence have teachers with the lowest levels of education, lowest career position, lowest results in teaching post competitions and the least experience (García et al., 2014). That is, students with the greatest needs and in the most challenging contexts are supported by teachers with the least preparation and skills. Several factors influence the uneven and inequitable distribution across schools, including the capacity to manage resources at the local level and the willingness of teachers to teach in more challenging contexts.

The policy allowing teachers who obtain the highest scores in the teaching post competition to choose the school they prefer also accentuates the shortage of well-qualified teachers in disadvantaged schools, as do the limited financial incentives to teach in rural and remote areas. Attracting high-quality teachers to disadvantaged schools is also a common challenge across OECD countries. Evidence from the United States has shown that financial incentives for teachers in disadvantaged schools need to

be very large (between 20% and 50% of salaries) to make a difference (Hanushek, Kain and Rivkin, 2004). Non-financial incentives can be equally effective, and more cost-efficient, in attracting highly qualified teachers to disadvantaged schools. These include more opportunities for career advancement, less instructional time or the ability to choose the next school where one works. Measures to recruit teachers and improve initial teacher education institutions in regions where shortages are most acute are also options to improve the quality of teaching in these areas.

When budgets are tight, the efficient management of human resources is essential. This involves making the right trade-offs, for example between the quality of teaching and the overall number of teaching staff. The success of Asian economies in PISA is often explained by their consistent focus on nurturing teacher quality over reducing class sizes (OECD, 2011), which are similar or even larger than in Colombia. Colombia has taken steps in recent years to manage teacher numbers in order to invest more in teacher training, development and remuneration. The establishment of staff ceilings, the approval required for new vacancies and the audit of the workforce under way are all intended to ensure that Colombia has the teachers it needs in terms of both numbers and skills. There is also the need, however, to align the incentives that influence the recruitment and support of teachers by certified entities and provide the latter with greater flexibility, and capacity, to manage their human resources. Certified entities have no incentives to reduce their staff costs in order to invest in other quality improvements as they cannot retain the potential savings (Barrera, Maldonado and Rodríguez, 2012). Also, they require national approval to reallocate teachers to other positions where they might have a greater impact. This limits their ability to increase staff in disadvantaged schools, retrain surplus teachers when demographic changes lead to decreases in school rolls, and address shortages in specific subjects or other educational levels. These barriers to investing in teaching quality need to be addressed.

Using information and evaluation to foster school improvement

Over the last 20 years, Colombia has invested considerably in developing tools to monitor and evaluate the performance of schools. With three external standardised assessments (and a fourth under development), it is one of the countries with the highest number of national student surveys in primary and lower secondary education. These assessments provide valuable information to monitor school, regional and national performance. However, further improvements to the assessments and the overall school evaluation framework could increase their potential for fostering school improvement. To this end, the capacity of schools, parents and students to understand and use them also needs to be strengthened.

Reviewing the external evaluation system

The central component of Colombia's school evaluation system are the SABER standardised student assessments, which assess learning outcomes at Grades 3, 5 and 9, with an additional assessment in Grade 7 under consideration. The SABER assessments have been a game changer in schools as they have helped to shift the focus towards student performance and contributed towards building a more results-oriented culture. The review team observed that school leaders and teachers are focused on student learning outcomes and are aware of the results of their school in SABER and how they compare nationally. The SABER assessments have been refined over the years, for example to enable comparisons over time and increase reliability. These are positive developments. However, there remains scope for further review of the purpose and design of the SABER assessments to ensure that they are as valuable as possible for policy development and school improvement. Several aspects of the current system merit attention.

First, Colombia's national standardised assessments for basic education do not measure individual student performance, nor do they track progression over time. At present, the SABER assessments provide a general picture of how individual schools are performing in core subjects every two grades. This can be helpful in identifying schools that are in need of particular assistance and to see how they are progressing over time. However, it does not provide the level of information on individual student performance that would enable teachers to understand students' strengths and weaknesses in relation to expected national standards and to target and improve classroom instruction. At least one of the SABER assessments could be re-designed to provide students with information about their individual results.

Second, the frequency of SABER assessments might need to be reconsidered. Running SABER at two-yearly intervals may have the value of signalling where the difficulties in progression lie within schools, if the latter or their local authorities have the capacity to analyse and interpret results. However, the benefits of such additional information needs to weighed against the costs of adequately designing and implementing the tests, and the time they may take away from effective classroom instruction. In OECD countries, external assessments are typically applied at the end of primary and lower secondary education (OECD, 2013b). Fewer but more powerful tests could provide better diagnostic information to help schools and policy-makers in raising educational outcomes.

Third, while the SABER assessments in basic education were originally designed to monitor school and system performance without formal consequences for schools or teachers, over the years they have acquired higher stakes. For example, SABER results are a prominent indicator taken

into consideration when distributing the quality component of the SGP to schools and staff bonuses. Using a single test for many purposes is risky: it might not adequately capture what needs to be measured and can lead to distortions such as teaching to the test, which can undermine and invalidate the whole evaluation system (OECD, 2013b). Mexico's recent experience with its national external assessment provides a cautionary tale on the risks of attaching high stakes to formative assessments (Martínez, 2015). Using a broad range of approaches to evaluate performance can help to reduce the stakes attached to one single measure and minimise unwanted side effects. This can also provide a fuller, and more accurate, picture of teaching and school quality, which an external assessment alone cannot capture. The introduction of the ISCE is a positive step in this regard, as it addresses other relevant indicators of school quality, such as student retention and school climate, while also communicating performance results in a way that is easily accessible to teachers, students and parents.

Fourth, it is essential for results, whether from SABER or the ISCE, to be adequately contextualised to enable fair comparisons and foster a constructive culture for improvement. A positive feature of SABER tests in basic education is that the socio-economic level of schools is included in the dissemination of results and no rankings are published. This is not the case, however, for the results at the end of upper secondary school (SABER 11) and for the initial results of the ISCE. Without contextual data, comparisons between schools can be unfair and misleading as raw student achievement reflects the impact of many factors, including students' family background, previous learning and the resources of the school (OECD, 2013b). As such, these can have a demotivating and alienating effect on teachers, parents and students, which is of particular concern in a school system that is already highly segregated and where resources are inequitably distributed. Given the wealth of contextual data collected in the tests, further information could be made available and analysed to facilitate the interpretation of performance levels and enable a better understanding of the factors that influence achievement. This is the case, for example, with the Brazilian Basic Education Quality Index (IDEB), which inspired the design of ISCE. One of the strengths of the IDEB, and one of the reasons why it has been accepted by educators, is that the index is set individually for each school and progress is measured against a school's own baseline, rather than what may be perceived as an arbitrary score for all schools (OECD, 2011; Álvarez et al., forthcoming).

Supporting schools to make a greater use of evaluation for improvement

The MEN is increasingly encouraging schools to undertake initiatives to improve their results with financial incentives and strong communication campaigns. As part of the 2015 National Education

Excellence Day, for example, schools were encouraged to debate their ISCE results, set performance targets and a strategic plan on how to reach them. However, such debates will only trigger improvement if schools receive considerable additional guidance and support on how to turn results into change in the classroom. In Colombia, many schools lack a strong leadership for learning (see Policy Issue 2) and the analytical capacity to act upon SABER, ISCE and other results. While ICFES provides training on how to analyse and use assessment data, this reaches only a limited number of teachers and principals. Evidence from successful school improvement efforts in OECD countries demonstrates that there is no way around school capacity building and leadership on the path to reform (OECD, 2015).

Given the scale and wide differences in need among schools in Colombia, building improvement capacity will require a well-structured and long-term approach. Many local authorities lack the capacity to support schools as their staff are mainly focused on the management of financial and human resources rather than on how to foster improvement efforts. Reintroducing supervisory bodies could serve to support school improvement as long as they are focused on evaluating learning processes in schools, rather than solely on compliance issues as was the case with the former inspectorate. Such bodies can collect valuable qualitative information on schools, on top of the quantitative indicators currently available. In this way, external evaluators would be able to provide guidance and accountability for performance on the basis of a comprehensive body of evidence, including direct observation of classroom practice. External evaluators could validate and provide guidance on key internal processes such as the evaluation of staff, school self-evaluation and curriculum development and implementation. A supervisory body could also disseminate examples of successful school improvement and help pair strong schools with weaker ones. In a nutshell, it could help national and local authorities to connect with schools and build capacity for improvement whilst providing school with valuable guidance and support in their efforts. Chile, for example, introduced the Agency for Quality Education in 2011 to undertake some of these functions (OECD, 2013b).

Recommendations

The first priority of basic education reform efforts in Colombia must be to ensure that all children have the opportunity to achieve their full learning potential. The country has made impressive gains in expanding access to primary and lower secondary education. However, the quality of schooling is deeply unequal and too many students leave compulsory education without the basic skills they need to succeed in life, work and

further learning. Improving student achievement will require a long-term, holistic approach that addresses the obstacles to learning that exist inside, and outside, the Colombian classroom. Three sets of policies could together catalyse system-wide reform: making student learning the focus of teaching and school practice; recruiting, preparing and developing teachers and school leaders to meet their demanding roles; and ensuring that schools are equipped with the resources they need to support all students, in particular the most disadvantaged. Achieving such a transformation would not only strengthen Colombia's education system, by ensuring those who enter school stay, learn, and progress to higher levels of attainment. Ensuring that basic education equips all students with basic skills would also yield important social and economic returns, strengthening national cohesion, productivity and development.

Placing student learning at the centre

Recommendation 1.1: Establish a national curriculum framework for school education

The establishment of a national curriculum framework would help in setting high, and equal, expectations for all children in Colombia and provide guidance to teachers on what students should be learning at each stage of their school career. To ensure ownership, it will be important to proceed through broad consultation and involve key stakeholders, in particular teachers. Given Colombia's considerable diversity, it will also be essential to provide adequate space for local and school-based adaptation. It will also be critically important to align the implementation of such a curriculum with a new curriculum for teacher education, assessments, instructional materials and other relevant policies, which will require a long-term planning horizon.

Recommendation 1.2: Encourage and support teachers to make more effective use of student assessment

Teachers and schools in Colombia require much more support in enabling students, in particular disadvantaged ones, to develop basic competencies. Teachers need greater assistance in how to assess whether students are learning, identify those at risk of falling behind early on and design effective support strategies. To this end, teachers need to be provided with adequate supports such as assessment tools, instructional materials, teacher assistants and recourse to remedial courses. The use of grade repetition should be strongly discouraged through legal restrictions combined with incentives and awareness campaigns to change its favourable reputation in Colombia.

Recommendation 1.3: Support teachers to manage classroom time more effectively and lengthen the day for the most disadvantaged

Teachers need additional support on how to use classroom time effectively to support learning. Improvements in teacher education and professional development are required to develop teachers' skills to manage large and diverse classrooms. Measures to reduce schools' administrative burdens, teacher absenteeism, and the shortage of basic instructional materials also need to be explored. Resources for increasing learning time should be channelled into supporting learning in the early years for the most disadvantaged students and schools. In particular, the full-day schooling initiative could prioritise the most disadvantaged or poorly performing schools and the early grades.

Building a stronger teaching and school leadership workforce

Recommendation 2.1: Develop professional standards

Colombia's drive to achieve excellence should start with clarifying what it means to be an excellent teacher and school leader. The definition of professional standards could help to raise the status and attractiveness of the profession, improve the effectiveness of other teacher policies, and, most importantly, ensure teachers have the knowledge, skills and values to support student learning. The standards should be the result of a participatory process that includes a wide range of stakeholders (e.g. unions, professional associations, researchers and teacher education institutions) to ensure they build on existing knowledge and evidence on what makes for good teaching and are useful to teachers.

Recommendation 2.2: Improve initial teacher education and professional development

Initial teacher education programmes should be aligned with the national curriculum framework and professional standards and have a greater practical focus to strengthen pedagogical skills and enable more student-centred learning. Induction programmes that provide quality and intensive support for new teachers should be available nationwide. Initiatives to build stronger professional communities inside and outside schools, such as the *Todos a Aprender* programme, need to be reinforced and spread across the country. Teacher appraisals should be used more systematically to inform professional development activities.

Recommendation 2.3: Use appraisal to foster improvement and reward teachers more effectively

The appraisal system needs to be reformed to foster and reward high performance. Reliance on written tests for teacher recruitment should be reduced and greater emphasis placed on teaching skills and motivation. The appraisal at the end of the probation period should ensure that only those with the potential to become excellent teachers and leaders are permanently awarded a post. Appraisals should be mandatory for all teachers, including those under the old statute or in provisional positions. They should take greater consideration of classroom observations and a broader array of evidence, and provide feedback and support to all teachers on ways in which they could improve their practice. Teachers' career and remuneration structures also need to be reformed to increase the attractiveness of the profession and adequately reward staff for their work.

Recommendation 2.4: Build a stronger school leadership profession

Strengthening school leadership will be important to ensure that curriculum and teaching policy reforms result in improvements in the classroom. The introduction of professional standards for school leaders could help to shift their focus from administration to the improvement of teaching and learning processes in the school. This new role will require establishing distinct career structures and school leadership roles, reforming the recruitment and appraisal processes to take greater account of their leadership potential, and providing them with adequate support to fully develop their leadership skills. In particular, mentoring and professional learning communities, such as the Transformative School Principals (*Rectores Líderes Transformadores*) programme, could be encouraged to spread good practices, help principals use their autonomy to drive improvements in learning, and overcome their isolation.

Improving schools to provide all students with equal learning opportunities

Recommendation 3.1: Tackle inequities in access to provide equal learning opportunities

Reducing the stark geographic and socio-economic inequities in the school system is one of the biggest challenges facing Colombia. An ambitious national strategy, backed by adequate financial resources, will be needed

to ensure that all children in rural areas enter school on time and have an equal chance to learn. It should include measures to improve the quality of the flexible education models, for example by reducing their overall number and matching them to the relevant student population, improving the quality of teaching and learning resources, and building bridges to traditional schooling. In urban areas, reducing school segregation should be a policy priority at national and local level. To this end, greater consideration could be given to measures to avoid student selection and ensure that disadvantaged families have access to high-quality schools, public or private. Awareness campaigns and school-level efforts to engage parents and inform them on how they can support the learning of their children could help address many of the factors that weaken schools in Colombia, including disengagement, classroom disruption and truancy.

Recommendation 3.2: Foster a more efficient and equitable distribution of resources

An increase in overall funding will be required to substantially transform Colombian schools and achieve the ambitious goal of becoming the most educated Latin American country by 2025. Further steps are also needed to distribute the resources available in a more equitable and efficient way. The national transfer system (SGP) should ensure that all schools receive at least the minimum resources required to provide quality learning opportunities, and greater consideration should be given to the level of disadvantage of students and schools to provide teachers in the most challenging contexts with more resources to support their students. Given concerns over teaching quality, national and local governments should prioritise investments to raise the quality of teaching, particularly in disadvantaged schools, over increasing numbers of teachers or other inputs. Strengthening information and accountability systems, in particular at the local level, will be important to ensuring that resources are invested where they can have greatest impact.

Recommendation 3.3: Use evaluation to foster school improvement

The overall evaluation framework needs to be reviewed to adequately measure and trigger school improvement. Colombia could consider reducing the number of SABER standardised assessments and re-designing at least one in order to provide student-level performance data. Carefully attention should be given when attaching consequences to assessment results to avoid distortions; using a broad range of coherent evaluation approaches when assessing performance can minimise the risk of one assessment acquiring high stakes for teachers, schools or students. Teachers and schools need to be given more support in interpreting SABER and ISCE results and

direction on how to use these to improve school and teaching practices. Contextual information, such as the level of disadvantage and resources available in schools, needs to be included in the publication and use of results to enable fair comparisons between schools. The establishment of a dedicated body of supervisors could help guide and accompany schools in their improvement efforts. This body could focus on evaluating school processes essential for learning (e.g. curricula, teacher appraisal, use of formative assessment, self-evaluation), and identify and spread good practice across the school system.

References

Alvarado, M., F. Duarte and C. Neilson (2012), *Efectos Beca Vocación de Profesor*, Centro de Estudios del Ministerio de Educación, Santiago, www.mineduc.cl/usuarios/mineduc/doc/201201111603490.EstudioEfectospreliminaresBecaVocaciOndeProfesor.pdf.

Álvarez Marinelli, H., A. Nury Martínez, M. Pinzón Caicedo and L.J. Piñeros (forthcoming), *Nota de Política: Oportunidades y Desafíos en el Sector Educativo Colombiano,* Inter-American Development Bank, Bogotá.

Barber, M. and M. Mourshed (2007), *How the World's Best-Performing School Systems Come Out on Top*, McKinsey & Company, http://mckinseyonsociety.com/downloads/reports/Education/Worlds_School_Systems_Final.pdf.

Barrera-Osorio, F., L. Linden and M. Urquiola (2007), *The Effects of User Fee Reductions on Enrollment: Evidence from a Quasi-Experiment*, Columbia University, Department of Economics, New York.

Barrera-Osorio, F., D. Maldonado and C. Rodriguez (2012), "Calidad de la educación básica y media en Colombia: Diagnostico y propuestas", *Serie Documentos de Trabajo,* No. 126*,* Economics Faculty, University of Rosario.

Bonilla, L. (2011), "Doble jornada escolar y calidad de la educación en Colombia", *Documento de Trabajo sobre Economia Regional,* No. 143*,* Banco de la Republica, Cartagena, www.banrep.gov.co/es/contenidos/publicacion/doble-jornada-escolar-y-calidad-educaci-n-colombia.

Bellei, C. (2009), "Does lengthening the school day increase students' academic achievement? Results from a natural experiment in Chile", *Economics of Education Review,* Vol. 28/5, pp. 629-640.

Bruns, B. and J. Luque (2014), *Great Teachers: How to Raise Student Learning in Latin America and the Caribbean* (advance edition), World Bank Group, Washington, DC.

DNP (2015), *Bases Plan Nacional de Desarrollo 2015-2018*, Departamento Nacional de Planeación (National Planning Department), Bogotá.

Econometria/SEI (2014), *Colombia – Evaluación Institucional y de Resultados de la Estrategia Modelos Educativos Flexibles (MEF),* Departamento Nacional de Planeación (National Planning Department) and Ministry of National Education, Bogotá.

ExE (2013), *Rectores Líderes Transformadores: Guía General del Programa*, Fundación Empresarios por la Educación (Foundation of Businesses for Education), Bogotá.

Fundación Escuela Nueva (n.d.), Fundación Escuela Nueva website, www.escuelanueva.org (accessed July 2015).

García, M. and L. Quiroz (2011), "Apartheid educativo: Educación, desigualdad e inmovilidad social en Bogotá", *Revista de Economia Institucional*, Vol. 13/25, pp. 137-162.

García Jaramillo, S. et al. (2014), *Tras la Excelencia Docente: Cómo Mejorar la Calidad de la Educación para Todos los Colombianos,* Fundación Compartir, Bogotá D.C.

García Jaramillo, S., D. Maldonado Carrizosa and C. Rodriguez Orgales (2014), "Propuestas para el mejoramiento de la calidad de la educación preescolar, básica y media en Colombia", *Cuadernos Fedesarrollo,* No. 49, Fedesarrollo, Bogotá, Colombia.

García Jaramillo, S., C. Fernández Monsalve and C. Weiss (2013), "Does lengthening the school day reduce the likelihood of early school dropout and grade repetition: Evidence from Colombia", *Documentos de Trabajo EGOB*, No. 7, Universidad de los Andes, Bogotá.

García Jaramillo, S., C. Fernández Monsalve and F. Sánchez Torres (2010), *Deserción y Repetición en los Primeros Grados de la Básica Primaria: Factores de Riesgo y Alternativas de Política Pública*, Educación Compromiso de Todos, Bogotá.

Gromada, A. and C. Shewbridge (forthcoming), "Student learning time: A literature review", *OECD Education Working Papers*, OECD Publishing, Paris.

Hanushek E., J. Kain, and S. Rivkin (2004), "Why public schools lose teachers," *Journal of Human Resources*, Vol. 39/2, pp. 326-354.

INEGI/SEP (2013), *Censo de Escuelas, Maestros y Alumnos de Educación Básica y Especial*, Instituto Nacional de Estadistica y Geografia/ Secretaria de Educacion Publica, Mexico.

Ingersoll, R. and M. Strong (2011), "The impact of induction and mentoring programs for beginning teachers: A critical review of the research", *Review of Education Research*, Vol. 81,/2, pp. 201-233.

Kärkkäinen, K. (2012), "Bringing about curriculum innovations: Implicit approaches in the OECD area", *OECD Education Working Papers*, No. 82, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k95qw8xzl8s-en.

Ladd, H. and E. Fiske (2009), "The Dutch experience with weighted student funding: Some lessons for the U.S.", *Working Papers Series*, SAN09-03, Duke Sanford School of Public Policy.

Lavy, V. (2010), "Do differences in schools' instruction time explain international achievement gaps? Evidence from developed and developing countries", *NBER Working Paper Series*, No. 16227, National Bureau of Economic Research, Cambridge, MA.

Leithwood, K., et al. (2004), *Review of Research: How Leadership Influences Student Learning*, Wallace Foundation.

Lupton, R. (2004), "Schools in disadvantaged areas: Recognising context and raising quality", *CASEpaper*, No. 76, Centre for Analysis of Social Exclusion, London School of Economics.

Martínez, F. (2015), *Las Pruebas ENLACE y Excale: Un Estudio de Validación*, Cuadernos de Investigación, Instituto Nacional de Evaluación Educativa, Mexico.

MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2015b), *Informe de Rendición de Cuentas 2014*, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2014), *Evaluación de Materiales de las Áreas de Ciencias, Lenguaje y Matemáticas de los Modelos Educativos Flexibles en Zonas Rurales en Colombia: Consolidación de los Estudios Realizados por Expertos,* Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Murillo, F.J. and M. Roman (2011), "School infrastructure and resources do matter: Analysis of the incidence of school resources on the performance of Latin American students", *School Effectiveness and School Improvement*, Vol. 22/1, pp. 29-50.

OECD (2015), *Education Policy Outlook 2015: Making Reforms Happen*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264225442-en.

OECD (2014a), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

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

OECD (2013a), *PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.

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

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

OECD (2011), *Lessons from PISA for the United States,* Strong Performers and Successful Reformers in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264096660-en.

OECD (2005), *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*, Education and Training Policy, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264018044-en.

Piñeros, L. (2010), *Una Mirada a las Cifras de la Educación en Colombia 2002-2009*, Educación Compromiso de Todos, Bogotá.

Pont, B., D. Nusche and H. Moorman (2008), *Improving School Leadership, Volume 1: Policy and Practice,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264044715-en.

Puryear, J.M, F. Barrera-Osorio and M Cortelezzi (2014), *Escuela Activa Urbana: Informe de Evaluación Externa*, Inter-American Dialogue, www.fundacionluker.org.co/new/descargas/Informe_Preal.pdf.

Ricardo, R. (2014), *Una Mirada a la Inclusion Educativa en Colombia*, Ministry of National Education, Fondo de las Naciones Unidas para la Infancia, Consejo Noruego de Refugiados, Bogotá.

Sarmiento, A. (2015), *Misión Calidad para la Equidad: Educación para el Desarrollo Humano*, United Nations Development Programme, Bogotá.

Sarmiento, A. (2006), "Una estrategia para aumentar la retención de los estudiantes", Ministry of National Education and National Planning Department, Bogotá D.C.

Secretaría de Educación of Bogotá (2014), *Bogotá Caracterización Sector Educativo 2013*, Secretaría de Educación del Distrito, Bogotá.

Slavin, R.E (2010), "Can financial incentives enhance educational outcomes? Evidence from international experiments", *Educational Research Review*, Vol. 5/1, pp. 68–80.

Slavin, R.E., and N.A. Madden, (2010). "Success for all: Prevention and early intervention in school-wide reform", in J. Meece and J. Eccles (eds.), *Handbook of Research on Schools, Schooling, and Human Development*, Routledge, New York.

UNESCO (2014), *Teaching and Learning: Achieving Quality Education for All,* Education for All Global Monitoring Report 2013/4, United Nations Educational, Scientific and Cultural Organization, Paris.

UNICEF (2014), "Caracterización del perfil de la exclusión al año 2011", United Nations Children's Fund Colombia, Bogotá D.C.

Weinstein, J. and M. Hernández (forthcoming), "Mentoring and networks among school principals: evidence and policy orientations for strengthening peer learning", *OECD Education Working Papers*, OECD Publishing, Paris.

Weinstein, J., M. Hernández and G. Muñoz (2014), *El Liderazgo Escolar en América Latina: Un Estado del Arte con Base en Ocho Sistemas Escolares de la Región*, UNESCO Oficina Regional de Educacion para America Latina y el Caribe (Regional Bureau for Education in Latin America and the Caribbean) and Universidad Diego Portales, Santiago.

World Bank (2012), "Reporte del uso del tiempo en el aula: evidencia para Colombia utilizando el método de observación de Stallings", World Bank, Washington, DC.

Chapter 4

Upper secondary education in Colombia

This chapter reviews Colombia's upper secondary education (USE) system, which lasts two years and targets students aged 15 and 16 (Grades 10 and 11). After examining the key features and trends at this level, it puts the spotlight on policy solutions to ensure Colombian students acquire the skills they need for work or further learning. The chapter highlights the importance of a comprehensive approach to USE, which consolidates core skills while providing greater access to work-based learning and more effective career guidance as a means to smooth students' transition to the labour market. It urges the need to address students' learning gaps before they reach USE, reduce the opportunity costs of education and develop a positive school climate. The chapter also examines how Colombia can reinforce national leadership and local capacity to steer reforms and enhance the relevance of USE to the local economy.

Completion of upper secondary education (ISCED 3)[1] is increasingly regarded, both in OECD countries and more widely, as the minimum required for full socio-economic participation (OECD, 2015a). Upper secondary school enables students to consolidate and deepen the core skills needed to continue to tertiary education or enter the labour market. It also contributes to a virtuous circle of higher employment rates, income generation, tax collection and investment, and of better health conditions, less crime and stronger civic engagement. Improving the quality and coverage of upper secondary education (USE) in Colombia could yield high dividends for individuals, the economy and society at large.

Upper secondary education (USE) lasts two years in Colombia and in theory serves students aged 15 and 16 (Grades 10 and 11). This places Colombia at the lower end of the spectrum; in most OECD countries the duration of USE is between three and four years and usually accommodates students until the age of 17 or 18. Enrolment is expanding steadily, although access levels and quality remain well below most OECD countries. Around 40% of young adults (25-34 year-olds) have attained an USE qualification, compared with just 16% of those aged 55-64 years old (UNESCO-UIS, 2015a; OECD, 2015b). Between 2002 and 2012, total net enrolment increased by 10 percentage points and access to USE in all public institutions was made free of charge in 2012 in a bid to further expand participation. Yet, at just 41%, net enrolment is low compared to most OECD countries, and national and international assessments suggest that students are not acquiring the skills they need for work or further learning. About 36% of 15-19 year-olds in Colombia are not in any form of formal education, more than double the OECD average of 13% (OECD, 2015b). No country can afford to exclude so many young people from its talent pool.

While the National Ministry of Education (*Ministerio de Educación Nacional*, MEN) has proposed reforms to USE, there is a lack of consensus on the direction of change and limited resources to support improvement. The challenge Colombia faces is how to transform a system that was created to provide access to tertiary education for a small number of students into a learning experience that meets the diverse needs of all students in a rapidly changing society and economy.

Context and main features

Policy objectives and recent developments

Colombia has significant gaps in the legislation and norms covering upper secondary education (Gómez et al., 2009; MEN, 2013a). The 1991 constitution guarantees education as a right for all Colombians and provides the legal framework for upper secondary education, as it does for all

educational levels. However, USE is not yet part of compulsory education which ends with completion of lower secondary school. The constitution, and the 2001 legislation that decentralised the education system, give the state at central, departmental and municipal levels responsibility for education in all public institutions, including upper secondary schools, but do not clearly define the roles of the various actors involved, in particular the private sector. The 1994 General Education Law defined USE as the third level of formal education which should last two years and represent the consolidation and development of what has been achieved in basic education (CRECE, 2012). It lacks clarity on what distinguishes USE from basic education, in particular its role as a bridge into work, further learning and productive adult life, and has not been amended in the last 20 years to reflect new demands on USE created by rising enrolment and socio-economic developments. As a result, the majority of students, parents and teachers regard USE as an optional stage of lower secondary education, with limited distinct value and use.

Recent years have witnessed few major policy developments in the sub-sector, although many changes to basic education have also had implications for USE. Under the National Development Plan 2010-2014 (*Plan Nacional de Desarrollo 2010-2014*) the MEN sponsored multiple studies and consultations to understand and respond to the challenges facing USE and create a "strategic line of thought for strengthening this level of education" in collaboration with social actors (MEN, 2013a, 2014a; Box 4.1). The process, however, seems to have lost momentum. The current National Development Plan 2014-2018 (*Plan Nacional de Desarrollo 2014-2018*, PND) suggests a renewed, though cautious, attempt to modernise USE. Most notably, the PND proposes gradual progress towards compulsory USE by 2030. This process prioritises access to USE in rural areas. Other initiatives for the school system will affect USE, such as the extension of full-day schooling (*jornada única)*, teacher reforms and the promotion of bilingual education (see Chapters 3 and 5). All schools that participate in the full-day school initiative are required to include Grades 10 and 11.

To steer progress under the PND, the government has set targets to increase the percentage of top-performing public schools on the SABER 11 national assessments (defined as high, superior and very superior according to the SABER scale) from 33% in 2014 to 45% in 2018 and to increase gross enrolment in USE from 77% to 83% over the same period (DNP, 2015). The PND also includes initiatives to change the overall architecture of USE and improve monitoring and evaluation. However, it remains unclear how this will be done and during the review visit and subsequently, very little information has been made available on these points. Moreover, the PND is only valid until 2018 when a new government will be elected, and does not envisage the constitutional changes that would enable the far-reaching reforms that most stakeholders, including this review team, regard as necessary.

Box 4.1. **Modernising upper secondary education in Colombia**

Under the National Development Plan 2010-2014: "Prosperity for All", the government sought to develop a new policy agenda for upper secondary education (USE), understanding its importance both for individuals' educational careers and for national development. The government sponsored multiple studies and consultations with key social actors, such as local secretaries of education, national and international experts, the private sector, tertiary education institutions, the National Training Service, the Colombian Institute for Family Welfare, teachers, school leaders and youth. Discussions focused on a number of subjects including the curriculum, vocational orientation, funding and rural education.

As a result, the Modernisation of Upper Secondary Education (*Modernización de la Educación Media*) proposal was put forward, with the overarching purpose of improving the educational and social opportunities of youth. One of the most significant aspects of the proposal was the recommendation that this level of education be made compulsory and that a 12th year be added, given that students in Colombia leave formal education system at a young age and with fewer years of schooling than their peers in Latin American and OECD countries. The initiative also aimed to: 1) improve conditions to guarantee student's access, retention and success in upper secondary school, such as through better infrastructure, teaching and learning environments and targeting specific student population groups; 2) ensure quality in upper secondary programmes by redefining learning and teaching content with a focus on four key pillars (basic competencies and social-emotional skills, practical and applied studies, civic service, and career guidance); 3) strengthen the upper secondary teaching profession through better qualifications and professional development; and 4) improve the management of this level through better co-ordination between the ministry, secretaries of education and institutions by changing the norms and legislation governing this level of education. Only some aspects of the proposal are reflected in the current National Development Plan 2014-2018, such as progressing towards making Grades 10 and 11 compulsory by 2030 and expanding access to USE in rural areas through improvements in infrastructure.

Source: MEN (2014), "Modernización de la educación media: Establece los propósitos, estrategias y orientaciones para el mejoramiento de la educación media", unpublished document, Ministerio de Educación Nacional (Ministry of National Education), Bogotá; MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Governance and funding

While most aspects of USE governance and funding are similar to basic education, and fall under the same legislations and norms covered in Chapters 1 and 3, some distinct features require highlighting. First, the roles and responsibilities of local and school-level actors are particularly important in USE. Local secretaries of education have the legal responsibility to create USE institutions based on demand in the community and the availability of school infrastructure. While this is the case at all levels, the discretion to

establish or expand schools is particularly important for a sub-sector that is still being developed and not yet compulsory. Schools, too, have additional responsibilities, notably in terms of building relations with tertiary education institutions and the productive sector. Their capacity to do this, and the ability of secretaries of education to support them, significantly affects the quality of provision and varies considerably across the country (CRECE, 2012).

Second, a wider range of stakeholders are engaged in the governance, funding and provision of USE than at the basic level. Since the 1990s, the National Training Service (*Servicio Nacional de Aprendizaje*, SENA) has played an increasingly important role in USE, especially in rural areas, sending teachers to deliver courses in schools. SENA is part of the Ministry of Labour, and the largest provider of vocational education and training in Colombia, including tertiary-level technical and technological programmes and non-formal education known as education for work and human development (EWHD). With the introduction in 2006 of the Programme for Strengthening Technical and Technological Education (*Programa de Fortalecimiento de la Educación Técnica y Tecnológica*), tertiary education institutions (TEIs) have also taken on a growing role in USE, especially in delivering more vocationally oriented courses. Both SENA and tertiary education institutions have considerable autonomy in relation to national and local government and there is, as yet, no national qualification system that would help align standards and ensure mutual recognition of the skills and credits acquired by students across different institutions (see Chapter 5). The MEN has sought to create a more systematic approach to co-operation between upper secondary schools, SENA and TEIs. However, it remains largely down to each school to manage relations with the different providers, and ensure the quality, relevance and recognition of the skills taught (MEN, 2014). While increasing the diversity of providers can improve access and learning, in the absence of strategic planning and clear standards it can risk causing fragmentation, uneven quality of education, and mixed signals to students and employers.

Third, there is no national target or earmarking of allocations for USE. As with basic education, the bulk of expenditures on USE comes from the national government and is distributed through the General Participation System (*Sistema General de Participaciones*, SGP), a complex formula which is designed to take into account the additional costs of educating students at different levels and with different needs (see Chapter 1). According to government sources, of the COP 34.2 trillion (approximately USD 11.25 billion)[2] in public spending on education in 2014/15, 10% was allocated to USE. The fact that USE is not compulsory can make it more challenging for local authorities to prioritise funds for this sub-sector, especially when the demand for investment in basic education remains considerable.

Almost all SGP funding (89% in 2009) is devoted to covering staff salaries and administrative costs (MEN, 2010). Investment in quality improvements, such as professional development for teachers, libraries and laboratories, depends largely on the availability of additional resources raised by secretaries of education and schools. The shortage of funds for quality improvement is a challenge at all levels, but it has particular implications for USE, where access to adequate equipment and opportunities for teachers to upgrade their knowledge are essential for students to reach higher standards of learning. The MEN has used national matching funds to provide incentives for local Certified Territorial Entities (*Entidades Territoriales Certificadas,* ETCs) (see Chapter 1) to invest in specific objectives, for example, prioritising the creation of rural USE schools. The engagement of SENA and TEIs in the provision of USE has also brought valuable additional resources to a sub-sector that by international standards appears deeply underfunded. However, evidence suggests that education infrastructure, equipment and materials in upper secondary institutions in Colombia are out of date and do not provide students with quality learning experiences, particularly in disadvantaged areas and those vulnerable to conflict (CRECE, 2012; OECD, 2013a).

Overall and per-student expenditure on USE in Colombia is far below that of most OECD countries and many other countries in Latin America. Total spending on USE from both public and private sources reached 0.6% of GDP, which is half the OECD average of 1.2% (OECD, 2014). Annual expenditure per student is 23% of GDP per capita, compared with 27% on average in OECD countries (OECD, 2014). However, in absolute terms, spending per student in Colombia was just USD 2 326 (from both public and private sources), which is much lower than the OECD average (USD 9 506), and also below Mexico which has a similar level of per capita income to Colombia but spends close to twice as much per USE student (OECD, 2014).

Private institutions are an important feature of the upper secondary landscape in Colombia, although accurate data on the level of private spending is lacking. Private enrolment accounts for about 17% of total participation (179 554 students out of 1.1 million students in 2014), and over one-quarter of upper secondary schools are private (2 802 out of 10 334 upper secondary institutions). On average, private schools have better results in SABER 11 than public schools, although their performance is more varied. These results are strongly influenced by the socio-economic profile of students in private schools, the majority of whom come from middle or high-income families. In recent years, the government has encouraged public-private partnerships to enable greater participation by disadvantaged students in private institutions. As in basic education, public funds flow to private schools through two main channels: 1) concession *(concesionadas*) schools, which are operated by a non-profit private organisation with autonomy to

use resources, such as teachers, under the supervision of local government (127 upper secondary schools with 9 775 students); and 2) public-private contracts providing students who do not have a place in public school with a access to private institutions free of charge (641 upper secondary schools with 47 318 students). In recent years, the government has also sought to regulate tuition fees in private education based on an evaluation of the quality of the institution (MEN, 2010). However, information on fees, like other aspects of private funding, is limited.

Colombia has introduced additional measures to address the costs of access to USE for poor students. As mentioned above, in 2012, Colombia abolished school fees for USE. Since 2001, Colombia has implemented a conditional cash transfer programme, More Families in Action (*Más Familias en Acción*), which provides payments to the poorest families[3] on the condition that families meet health and educational criteria including participation in USE. The MEN and the Colombian Institute for Student Loans and Study Abroad (*Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior*, ICETEX) introduced the Incentive to Upper Secondary Education Fund (*Fondo de Fomento de la Educación Media*, FEM) in 2008 to provide disadvantaged schools (with a student population in levels SISBEN 1 and 2) with subsidies to enable disadvantaged students to access courses in tertiary institutions (MEN/ICETEX, 2011). The partnership with SENA, whose vocational courses are free of charge, has also expanded the capacity of schools to provide tuition to families that cannot cover access costs.

Learning options, curricula and certification

Upper secondary education marks the end of compulsory education and in most countries offers students their first opportunity to begin a more personalised learning trajectory and the chance to pursue new and more varied areas of interest. Colombia offers two main learning "options": an academic (*académico*) option and a vocational (*técnico*) option. In most cases, both options are pursued in the same type of institution and students follow most of the same subjects, making the distinction more one of emphasis than separate tracks. For the majority of students dependent on the public school system, however, the actual choice available is limited. Data received from the MEN show that in 2014, around two-thirds of schools offered only general academic courses, and just 113 out of more than 7 500 offered both academic and vocational options. The schools that offer only vocational options are heavily concentrated in rural areas, where local government capacity is weak and SENA might be the only institution with the resources to provide courses at upper secondary level (CRECE, 2012; Econometría, 2012a).

Of the 1.1 million Colombia students enrolled in USE, more than three-quarters (76%) follow general programmes (OECD, 2014). The general academic programme (*Bachillerato académico*) lasts two years and focuses on deepening knowledge in the main areas of the arts, humanities and sciences covered by basic education. Students are also required to study economics, politics and philosophy. As in basic education, schools have the autonomy to design their own curricula under these broad areas. They can also provide additional courses, for example to meet the needs of the local community and labour market. Like many other countries, Colombia also encourages students to participate in community activities and social service in an attempt to build an understanding of ethical values and prepare students for civic participation (National Congress, 1994).

While there is no national curriculum, as for basic education the MEN has sought to provide more guidance to schools on what students should be learning during this important stage of their education career. Since 1998, the MEN has published 12 volumes of curricular guidelines for a number of subjects, including social sciences, natural sciences, mathematics and physics, which schools are not required to follow but are influential in external evaluations (MEN, 2015c). In 2003 the MEN issued competence standards for USE in literacy, mathematics, sciences, English and citizenship (MEN, 2006). These guidelines and standards provide schools with some direction on the concepts and topics students should learn in USE, though their sheer volume and number, combined with the lack of an overall curriculum framework, has contributed to a fragmented and overloaded learning agenda in many schools (see Policy Issue 1).

The 24% of students in Colombia enrolled in vocational programmes (*bachillerato técnico*) follow the same core subjects as those in general academic courses, while in addition taking theoretical and practical courses in more specific vocational fields (OECD, 2014). Most students choose to focus on commerce (28% of students) followed by agriculture (20%), industry (18%), pedagogy (6%) or social services (2%) (CRECE, 2012). Agriculture tends to predominate in rural regions while in urban areas students follow a wider range of courses. SENA is the largest provider of vocational courses, and is present in around half of all upper secondary schools (Econometría, 2012a). As mentioned, SENA courses are particularly important in rural areas and in specific vocations (e.g. agriculture and cattle raising, mining, industry, ecology, environment, informatics, health, recreation, tourism, and sports). Tertiary institutions offer vocational courses in around one-fifth of all upper secondary schools and are growing in importance (Econometría, 2012a).

Information on the labour market outcomes of vocational programmes is limited. However, evidence from various studies suggests that the quality of vocational courses varies considerably across schools and regions (CRECE, 2012).

While individual programmes may prepare some students well for specific jobs, overall the vocational education and training (VET) option tends to cater for students with lower skills and socio-economic status. With weak employer engagement in the design and delivery of most VET programmes, and in the absence of a national qualifications framework that would facilitate a common understanding of the skills acquired during such courses, there are indications that many vocational students face considerable challenges in transitioning to formal employment or further education and training (CRECE, 2012; MEN, 2014; see Policy Issue 1).

Colombia also has some 137 Higher Teaching Schools (*Escuelas Normales Superiores,* ENS), 129 public and 8 private, which train future pre-primary and primary teachers. These schools offer two years of upper secondary education and two additional years, sometimes known as Grade 12 and 13, at the tertiary level. The ENS upper secondary curriculum offers the same core subjects as general and vocational programmes do, but also provide additional courses which are specific to pedagogy. Students completing the first two years of the ENS obtain an upper secondary certification with a mention of their focus on education and can continue on to the additional two years to receive the certificate of *normalista superior* to teach in pre-primary or primary education.

Upon successful completion of USE, students obtain a certificate of completion (*bachiller*), with a mention of the programme in which they specialised. Schools have the freedom to determine their own graduation requirements, and some might make additional demands, such as participation in social service/volunteering or, for students in vocational programmes, an apprenticeship or other form of labour-market experience (CRECE, 2012). Students following programmes offered by SENA and TEIs must obtain the necessary academic credits as determined by the partner USE school to graduate, but both SENA and TEIs award the final certificate. For training received through SENA, students can receive an additional certification of professional aptitude (*certificado de aptitud profesional,* CAP).

In theory, a certificate of completion is enough to allow a student in Colombia access to tertiary education and the labour market. However, in practice the passport to a future career in education and formal employment is the national exit exam, SABER 11. This is the main means of certifying the skills acquired by students at the end of their school life. Its results are important to policy makers, secretaries of education, employers, tertiary educational institutions and, not least, students themselves. A student's score on SABER 11 is a critical determinant of entry to tertiary education and access to tertiary education loans, although many TEIs have additional entry requirements and some may have their own exam (see Chapter 5). In 2014, the structure of SABER 11 was changed so that its results could be

comparable with other national evaluations (SABER 3, 5, 9, 11 and SABER PRO). The number of subjects was reduced from eight to five – critical reading, mathematics, natural sciences, social and civic sciences, and English – and it included open questions for the first time. In the absence of a national curriculum, and given its high stakes for students, the structure and focus of the SABER 11 has an important influence on what is taught in upper secondary schools in Colombia.

Organisation of upper secondary schools

Most public USE institutions in Colombia are part of a cluster of basic education establishments, under the authority of a single principal and co-ordinator (see Chapter 3). About 56% of upper secondary schools are in urban areas, enrolling the vast majority of students (84%). Their size varies considerably, anywhere between 16 and 550 students depending on the region. On average, rural schools tend to be significantly smaller than urban ones, with limited capacity to offer different programmes (CRECE, 2012). Under the General Education Law, completion of basic education is sufficient for entry to USE, but some schools have additional entry requirements. For example, institutions may impose a minimum or maximum age for entry or review students' academic and disciplinary performance in basic education.

As in basic education, Colombia has developed a number of flexible education models to expand access to USE for students in rural areas or from disadvantaged groups. Among those programmes recognised by the MEN are the Rural Upper Secondary Academic Education model (*Educación Media Académica Rural*) which has the largest number of students (13 579 in 2014), the Continuing Education Programme (*Programa de Educación Continuada,* CAFAM), the Rural Education Service (*Servicio de Educación Rural*) and the Tutorial Learning System (*Sistema de Aprendizaje Tutorial,* SAT). While using different pedagogical approaches, these programmes share a common emphasis on engaging students with their local context and often use tutors from the local community. They also provide a more flexible schedule and learning environment than most traditional schools. Colombia has introduced a number of distance learning programmes, including the tele-secondary (*telesecundaria*), a model developed by Mexico for lower secondary education that uses television to complement classroom instruction, Let Us Change (*Transformemos*), and Virtual Model (*modalidad virtual*). While enabling greater access, evaluations have shown that flexible models tend to be of lower quality than formal schooling (CRECE, 2012). The PND proposes to promote flexible education models as an important part of national efforts to expand access and increase student retention in rural areas, alongside measures to build new infrastructure, strengthen alliances with SENA and TEIs, and expand nutrition and school transport programmes.

Given the high number of individuals who do not enter USE after lower secondary school, or who drop out before completion, Colombia has developed a range of second-chance opportunities for individuals to re-enter upper secondary school or follow courses in other institutions at an equivalent level. Many of the flexible models mentioned above are adapted to facilitate entry throughout the school year and are available to students of different ages and attainment levels. There are also dedicated initiatives, such as the Programme for Overage Youth and Adults (*Programa para Jóvenes en Extraedad y Adultos*), which provides a flexible timetable, including distance options, to enable young people and adults to consolidate their basic skills. Depending on students' educational level, successful participation in the programme can validate their basic or upper secondary education, the latter enabling them to access tertiary education.

Teachers and school leaders

Upper secondary teachers account for about 20% of the total school workforce, and between 2002 and 2013 their number increased from 46 007 to 59 309 (UNESCO-UIS, 2015b). Student enrolment (39%) has risen more than the increase in teachers (30%), and class sizes have, on average, grown, from 20.5 to 22.7 in 2013 (UNESCO-UIS, 2015b). Rural areas have a lower student-teacher ratio on average (18.7) than urban areas (23.7), while vocational upper secondary programmes have a higher ratio (23.4) than the general academic pathway (14.9) (CRECE, 2012). On average across OECD countries, public upper secondary schools have a student teacher ratio of 13 (OECD, 2014).

Colombia's upper secondary teaching profession is subject to the same policies as the basic education workforce (see Chapter 3) and faces similar challenges, although in some respects they are more pronounced. As in lower secondary education, upper secondary teachers are required to hold a bachelor's degree (ISCED 6), and in 2013 98% of upper secondary teachers were considered qualified. Across OECD countries, most upper secondary teachers are required to have a master's degree, although both Chile and Mexico require only a bachelor's degree. Many OECD countries, such as England (United Kingdom) and Korea, also offer specific courses and a teaching practicum to prepare teachers for this level (OECD, 2014). However, in Colombia there are no requirements for upper secondary teachers to have specific training or professional development activities that would prepare them to engage with the particular needs and learning goals of students at this age. In terms of preparedness and skills, upper secondary teachers are interchangeable with those in lower secondary education and in many schools they switch between the various grades of secondary education, though specialised subjects are usually taught by an upper secondary teacher.

In many countries across the OECD, upper secondary teachers are paid more than those in basic education; this is not the case in Colombia, where they have the same status in legislation as lower secondary teachers.

In Colombia there are no specific requirements on the skills or experience teachers and trainers need in order to provide vocational courses, although some institutions might set their own standards. Evidence suggests that in the absence of clear qualification requirements many vocational teachers and trainers lack core pedagogical skills and vocational knowledge (CRECE, 2012). SENA institutions set clearer standards. SENA trainers are required to have a higher level of knowledge and skills than those of the course they will teach, in addition to possessing pedagogical skills. All must have participated in at least 140 hours of teacher education. They also need to have a minimum of six months to one year of experience in their occupational area, as well as six months of experience as a teacher. SENA has a national school for preparing and updating the knowledge of its instructors, which partly uses distance learning. It also maintains a bank of instructors comprising SENA graduates who were outstanding in their field. Instructors' performance is appraised and their skills and competencies are duly certified. The MEN does not regulate SENA in any of these respects.

A key person in any school is the school leader. Given the system of school clusters, it is common for the same school leader to oversee both basic and upper secondary education in Colombia, with the support of co-ordinators (CRECE, 2012). School leaders are responsible for developing the upper secondary learning options and curriculum. They are selected by merit contests and receive very limited training once selected, which is mostly theoretical and concentrates on legislation and formal matters. There is no regulation to define the profile and skills required by a school leader in either USE or basic education, and the training they receive does not foster pedagogical leadership or the type of skills that upper secondary school principals require, such as how to build relationships with tertiary and training institutions and the local labour market (Weinstein, Hernández and Muñoz, 2014; see Chapter 3).

Career guidance officers and counsellors are also important in USE, providing support to students navigating the many questions that arise during these transitional years. Such staff and services appear limited in most upper secondary schools in Colombia, although reliable national data are lacking, and there is no clear framework or standards for guidance counselling, as exist in many countries (CRECE, 2012). During the review visit, it was reported that there is approximately 1 counsellor per 10 000 students, which suggests a significant need in schools for trained staff to guide students

during USE and towards future opportunities. In 2006, Colombia launched the *Looking for a Profession?* (*Buscando Carrera?*) initiative as part of the broader campaign, Mobilising Demand in Tertiary Education (*Movilización de la Demanda*), to improve transition to and participation in tertiary education. The initiative provides students with access to a website that offers guidance on four key stages: looking for a career, in a career, starting work and looking for a post-secondary education.

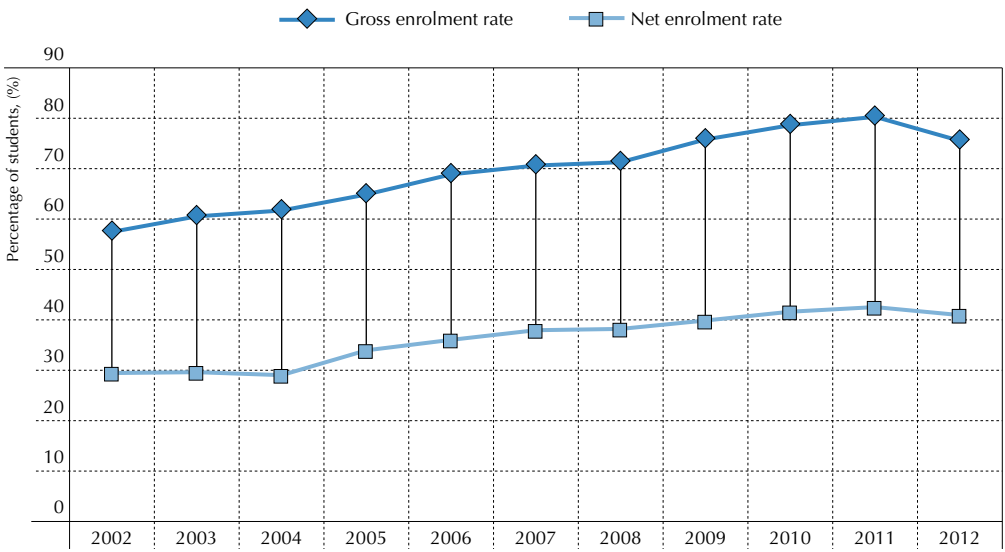
Trends in key education indicators

Access and participation

The share of Colombian students entering USE has steadily increased since 2000, yet enrolment rates remain low and a large share of students are over age. Between 2002 and 2012, the net enrolment rate[4] rose from 30% to 41% (UNESCO-UIS, 2015b and Figure 4.1). A series of measures, from the provision of free public schooling to major investments in infrastructure and education resources, have enabled this increase in secondary education coverage. Most students in USE are between 15 and 16 years-old (54%) although 7% are under 15 and 38% are 17 or older (MEN, 2014). Colombia's gross upper secondary education enrolment rate in 2012 (76%) was higher than Mexico's (62%), close to Costa Rica's (79%) and lower than the OECD average (106%), the United States (90%), Germany (105%), and France (114%) (UNESCO-UIS, 2015b). Late entry to education and high rates of grade repetition are major factors behind the difference between net and gross enrolment, contributing to a large number of over-age students in Colombia and a challenging teaching and learning environment.

There are stark differences in enrolment rates across regions, socio-economic levels and genders in Colombia. While the net enrolment gap between urban and rural areas has decreased by 7 percentage points between 2010 and 2013, just 26% of rural students were enrolled in upper secondary education in 2013 compared to 48% in urban areas (DNP, 2015). In 2012 net enrolment rates ranged from 52% in Bogotá and 48% in Boyacá, to just 9% in Vaupés and 8% in Guainía (MEN, 2015b). These differences in enrolment reflect major differences in the pace of expansion across different departments in the past decade: while net enrolment in Casanare rose by 28 percentage points, in Guainía participation grew by just under 3 percentage points (MEN, 2015b). Across socio-economic status, enrolment in USE is dominated by students from higher economic levels. In Colombia, as in many Latin American countries, gender disparities in USE favour female students (UNESCO-UIS, 2015b). Girls accounted for 54% of total gross enrolment in 2012, compared to 46% for males (UNESCO-UIS, 2015b).

Figure 4.1. **Upper secondary enrolment in Colombia (2002-12)**



Note: Net enrolment rate refers to students who are of the expected school age in upper secondary education while gross enrolment rate refers to all students who are in upper secondary education regardless of age.

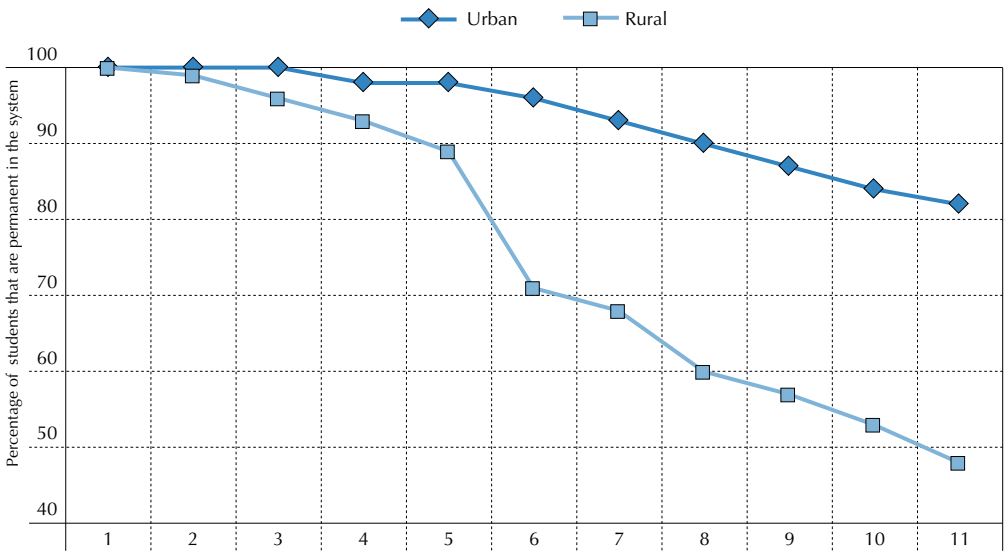
Source: MEN (2015b), "Estadísticas sectoriales de educación básica y media", Ministerio de Educación Nacional (Ministry of National Education) website, http://menweb.mineducacion.gov.co/seguimiento/estadisticas/.

In Colombia, a significant proportion of students combine work and study. Despite labour legislation limiting employment for those under the age of 18, 12% of 15-19 year-olds were studying and working in 2013 (OECD, 2015b). The opportunity costs of USE are high for students from low-income families, and the informal labour market a constant attraction. The government has introduced a range of policies to facilitate enrolment for students from disadvantaged families, improve the relevance of USE and, where necessary, help students continue their education whilst working. However, the 2010 National Dropout Survey identified financial pressures and the low perceived value of USE among the major factors behind students dropping out (MEN, 2013a).

Dropping out is a chronic problem in Colombia after primary school. The weakest point in the education system is the transition from primary to lower secondary education, when a large number of students, particularly in rural areas, start to leave the education system, but it continues until the end of USE (MEN, n.d.; UNC, 2010 and Figure 4.2). In 2013 approximately 437 782 youth

who should have been in USE were not (MEN, 2014). In rural areas, the share of students falling out of the education system is significant, with only 57% making it to Grade 10 and less than half (48%) completing USE. In urban areas, about 82% of students complete USE (MEN, n.d.). The forces drawing students out of the classroom are multiple and complex, and vary across regions and between rural and urban areas. Alongside high opportunity costs, factors that play a particularly important role at the upper secondary level include teenage pregnancy, violence (inside and outside the classroom) and distance to school.

Figure 4.2. **Survival rates of a cohort of Colombian students, by age and location**



Source: MEN (n.d.), "La deserción escolar", unpublished document, Ministerio de Educación Nacional (Ministry of National Education), Bogotá, www.mineducacion.gov.co/1621/articles-293659_archivo_pdf_abc.pdf.

Student performance

The majority of students entering USE in Colombia have weak basic skills, and despite progress in raising achievement levels there are signs that the majority of students leave secondary school poorly prepared for either work or tertiary education. Results from the national SABER 9 exam suggest that one-quarter of students in Grade 9, the last year of lower secondary, were performing poorly in 2014 and had not acquired basic competencies in mathematics, literacy and citizenship (MEN, data provided by authorities). Results from the Programme for International Student Assessment (PISA)

in 2012 show that by international standards, 74% of 15-year-old students in Colombia (which includes students across Grades 8 to 11) achieved below level 2 in mathematics – the baseline level of skills required for productive participation in society (see Annex 1.A1 in Chapter 1). This demonstrates the challenges upper secondary schools face to make up for the weak learning foundations provided by basic education.

National learning outcomes mask significant disparities across regions, socio-economic groups and school type – factors that often overlap. Figure 1.6 in Chapter 1 gives the breakdown of SABER 11 results by region. The results of SABER 11 indicate that students in private schools, who for the most part come from upper-income families, perform much better than their peers in public schools, who tend to come from lower socio-economic levels. In 2013, 68% of students in private schools performed above average (levels high, superior and very superior), compared to 32% of students in public schools; 32% of students in public schools performed below standard (levels low and inferior) compared with 16% in private schools. An analysis of SABER 11 results showed that, in urban areas, students who participate in SENA or TEI partnerships perform significantly more poorly than their peers in the general academic option or a vocational school without partnerships, while the differences are either not significant or slightly favourable to those under a partnership in rural areas (Econometría, 2012a). The smaller differences observed in rural areas, where students are likely to come from poorer backgrounds, might be explained by the high incentives SENA programmes offer to students through access to free tertiary education.

Despite poor learning outcomes, USE provides an important gateway to tertiary education and formal employment. According to government data about one in three public school students (29%) transitioned from USE to tertiary education in 2014. A survey of students in partnership schools with SENA or TEI programmes found that some 45% of urban and 43% of rural graduates from these programmes continued to technical institutes, which was more than their peers in the control group (39% and 37%, respectively). Rural graduates from SENA or TEI programmes were also more likely to continue to universities (21%) compared to the control group (13%), although urban graduates from these programmes continued to universities at a lower rate (28%) than the control group (32%) (Econometría, 2012a). Data on the labour market outcomes of USE are limited. Results from the 2011 Large Integrated Household Survey (*Gran Encuesta Integrada de Hogares*, GEIH) indicate that individuals whose highest level of educational attainment is USE earned 45% more than those with only basic education. This gap falls to 18% when only individuals in formal employment are taken into account, however, and the wage premium of USE is lower in rural areas (Econometría, 2012b).

Key policy issues

Upper secondary schooling in Colombia faces the double challenge of significantly expanding access while transforming the quality and relevance of education provided. A series of comprehensive diagnostic studies carried out in recent years at the request of the government have urged major reform to meet the aspirations of Colombia's students and the needs of the country. The three main reform priorities identified by the MEN are: 1) improving the quality of upper secondary education to make it more relevant to students, society and the labour market; 2) moving progressively, and equitably, towards universal access and completion; and 3) building capacity at all levels to deliver this transformation (MEN, 2014). The OECD endorses these priorities. The overarching challenge is how to shift a system built to prepare a minority of students for university towards an inclusive system that responds to diverse student aspirations and capabilities and offers every young person in Colombia the chance of success in his or her chosen path in school and beyond.

Policy issue 1: Improving quality and relevance

The definition of the role of upper secondary education in Colombia, as stated in the General Law of Education and its subsequent revisions, is widely considered to be both vague and not distinct enough from basic education to guide learning in these formative years (Nieto et al., 2013). As a result, students and their parents lack a clear understanding of why they should enrol; teachers and principals are given little direction as to what sort of knowledge, skills and values should be fostered; and it is hard for tertiary education institutions and employers to know what they can or should expect of upper secondary graduates. This section analyses some of the principal considerations that should be taken into account as Colombia moves forward to clarify the purpose and structure of USE. The expansion of vocational and technical courses at upper secondary level provides students with more options but a comprehensive upper secondary system will still be needed to enable all students to consolidate their core skills, including strong levels of literacy and numeracy. This section examines how more practical and work-related courses can be offered to improve employability, without risking the development of a technical track that is seen as second best or a dead end. It also examines the additional factors – certification, career guidance and labour-market demand, training and legislation – that enable upper secondary school to provide an effective bridge for students to pass smoothly either into the world of work or into tertiary education.

Setting expectations for teaching and learning

This review has identified the lack of clear national learning standards as an obstacle to improving schools in Colombia and highlights the benefits a national curriculum framework could bring in terms of enhancing the equity and quality of student outcomes (see Chapter 3). These findings apply to every level of the school system, but have specific implications for USE, which faces several distinct challenges with respect to the effectiveness of teaching and learning practices.

First, successive attempts to modernise the content of USE have resulted in a great number of requirements that schools are now expected to fulfil when formulating their own curricula (ten compulsory subjects, five transversal projects, a range of key competences, entrepreneurial skills…). These requirements are often vaguely defined and poorly linked, leaving teachers with little structured guidance over how to steer a very diverse group of students towards higher levels of attainment within the space of two years (Qualificar, 2012). As a consequence, students often face a package of disconnected courses that are not really different from basic education and have little depth or applied focus (Qualificar, 2012). Any future reform to USE will need to ensure that the curriculum is not overloaded with subjects and that it provides adequate time and guidance to develop the core cognitive and non-cognitive skills that best prepare students for success in education and employment. This includes foundational skills like literacy and numeracy, which are often weakly developed among students entering USE in Colombia, as well as those skills that are recognised as important in 21st century economies, such as self-directed learning, problem solving and critical thinking.

Second, in the absence of a national curriculum framework, the central standardised examination to enter higher education (SABER 11) is very influential on school curricula. While this is also the case with national assessments in basic education (SABER 3, 5 and 9), the influence of SABER 11 is greater because the stakes are much higher for both students and schools. International evidence shows that high-stakes examinations are likely to focus teaching and learning on the skills assessed and narrow the curricula offered by schools (OECD, 2013a). In Colombia, SABER 11 may have had a positive influence in focusing teaching on a common set of learning standards and reducing curricular fragmentation by assessing core competencies across five core domains. However, the risk is that students are not being encouraged to develop other important skills and values that are needed for life and work, particularly given SABER 11's primary role as gatekeeper to higher education. A national curriculum framework could help to ensure that students complete school with the range of skills and values

needed for full social and economic participation, and also guide the future development of SABER 11 so that what is assessed at the end of USE reflects national learning goals.

The third issue is the extent to which the curriculum and teaching practices engage with adolescents' interests and the ways in which they learn. The evidence highlights the importance of student-centred approaches that enable learners to feel autonomous and engages them actively in problem-solving exercises with real-life applications (Dumont, Istance and Benavides, 2010). What is taught in Colombia is far removed from students' everyday lives, with issues that matter to them seldom discussed or integrated into the teaching of core subjects (Qualificar, 2012). This disconnect is compounded by the limited training that teachers receive on how to address the specific needs of adolescents or to manage their behaviour in the classroom. Teaching in USE continues to focus on the transmission of knowledge through rote memorisation. Teacher-centred instruction prevails and few schools in Colombia work on projects, have practical assignments or field trips, or promote activities connected to students' interests or those of the local community (Qualificar, 2012; CRECE, 2012). This is partly due to a lack of financial and material resources in schools, but also because teaching policies have failed to give sufficient attention to student-centred instruction styles (see Policy Issue 1 in Chapter 3). Upper secondary teachers generally follow the same initial and in-service training as those in lower secondary; they have few opportunities to acquire the rather different skills needed to teach teenagers. Addressing these weaknesses in teacher education and training will be central in implementing an upper secondary curriculum that sets high standards for learning, engages adolescents in school and is relevant to Colombian students and the society in which they live.

Consolidating core skills and developing employability

One central question countries face when organising upper secondary schooling is the degree of differentiation between general and vocational education. Practice varies considerably across OECD countries over when students have to choose between programmes, how this choice is made, and whether this choice is offered by one comprehensive school providing a variety of tracks, or by separate general and vocational schools, each with quite distinct programmes (OECD, 2010; Sahlberg, 2007). The nature of such differentiation is often shaped as much by historical tradition as intentional design. What matters most, regardless of organisational structure, is that all students acquire the range of skills required for full social and economic participation; that vocational programmes are not a low-quality choice for low achievers linked to poor-quality jobs, but provide access to continued learning and decent work; and that, recognising that students change and

develop, all tracks are as permeable as possible, allowing students to shift to more suitable tracks, and avoiding dead ends that cut off opportunities for further education and training.

At present, the majority of USE students in Colombia follow general academic programmes. However, in recent years the expansion of vocational programmes has been emphasised, through partnerships with SENA and tertiary education institutions. While this has provided a diverse student population with more options, there is a risk that, without a common curriculum and a national qualifications framework, students pursuing more vocational options will not acquire the core skills they need to continue learning. This could be a barrier both to career development and entry into tertiary education. As the expansion of vocational options seems likely to continue, it will be important to make sure that this is part of a comprehensive approach and does not evolve into a parallel, poor-quality system.

A comprehensive approach to consolidating core skills

In a comprehensive upper secondary school system students generally receive a common core curriculum but have opportunities to deepen their knowledge in elective academic or vocational subjects. In such a system, pathways are not strongly differentiated and students retain the option to access either more academic forms of post-secondary education or vocational post-secondary programmes. Students' lack of basic skills on entering USE in Colombia, their age, the changing needs of the labour market and the resource constraints facing the education sector, all suggest that Colombia would benefit from pursuing such a comprehensive approach.

When students in Colombia enter USE, they have normally spent less time in school and have much lower levels of skills than their counterparts in OECD countries (see Figure 1.4 in Chapter 1). As covered above, PISA 2012 found that 74% of 15-year-olds in Colombia performed below the level often regarded as the minimum needed for full socio-economic participation. For most of these students, USE will be the last chance they have to consolidate the core academic skills that are key not only to their progress into tertiary education but also to their immediate job prospects and career advancement. According to the World Bank Enterprise Survey, about 45% of Colombian firms believed that an inadequately educated workforce was a major constraint on their operations in 2010, a greater share than in Chile (41%) and Mexico (31%) (World Bank, 2015). Employer surveys show that the skills most in demand in the Colombian workplace are strong basic cognitive skills, coupled with essential non-cognitive skills (critical thinking, problem solving

and communication) and social and emotional skills (persistence, self-control and the ability to interact well with others) (Cunningham and Villaseñor, 2014). Such core skills, rather than narrow technical ones, are not only valued in the current labour market, they will also help students adapt better to the significant structural and technological changes that Colombia will undergo during its economic emergence and provide better job opportunities over the longer term (Smits, 2007).

In Colombia, there are no formal mechanisms to assess the talents, aptitudes and vocations of students prior to enrolment in USE and students receive no or only limited guidance on the options available (Nieto et al., 2013). Instead, the programme a student eventually attends is heavily shaped by their location, background and financial means. Countries with clearly separated general and vocational education options have to pay particular attention to ensuring that the latter is not seen as second best and a dead end that does not lead to further education and training. In Colombia, the local authorities often have limited resources and the region may have only a weak business, or productive, sector. Local authorities may therefore struggle to develop two separate strong general and vocational options whilst also ensuring that students from disadvantaged backgrounds are not being tracked away from a path that may lead to better prospects. A recent review of Indonesia, which faces many similar constraints to Colombia in terms of poor basic skills, weak local capacity and low employer support for training, highlights the challenges of trying to develop a dual-track system, in particular the difficulties of recruiting well-qualified trainers and improving the status of vocational programmes (OECD/ADB, 2015). A comprehensive approach in Colombia could avoid further exacerbating socio-economic differences, while still providing an introduction to the world of work and preparing students for further vocational or technical education programmes.

A comprehensive approach to USE does not mean that there is no space for practical courses that offer an introduction to the workplace and working life. In Colombia, where general academic courses are often weakly defined and have little applied focus, vocational courses can offer a valuable means of keeping students engaged in the school system, improving their performance and helping them make the transition into employment (Econometría, 2012a). Vocational courses might cover practical matters – such as business management, the use of hand tools or computing skills – or have a sectoral focus (agriculture, health) but can be provided as modular elements in a broadly comprehensive curriculum, rather than as separate full-time programmes designed to provide an in-depth vocational specialisation. Within such a comprehensive approach, occupationally-targeted vocational education and training would be postponed to the post-secondary level, recognising

that in Colombia that level may begin as early as the age of 16. This is a broadly similar approach to that used in the United States, with most (upper secondary) high schools offering comprehensive education but with some modular provision of practical training, while occupationally-targeted training is undertaken in community colleges, private providers and universities.

Expanding work-based learning opportunities to improve employability

The majority of vocational courses offered to upper secondary students in Colombia are provided by tertiary institutions and SENA. This has enabled Colombia to diversify the programmes offered by schools which previously had struggled to provide vocational options because of the lack of specialised teachers and other resource constraints (Nieto et al., 2013). However, there are indications that such partnerships could be better designed to strengthen student employability. As discussed in Chapter 5, tertiary education institutions, in particular, have only weak links to businesses and employers and the labour-market value of many tertiary vocational programmes has been shown to be limited. Staff and courses for tertiary students are trained and designed with little to no involvement of employers. Moreover, both SENA and tertiary institutions have considerable autonomy, and the mechanisms for ensuring the quality of technical and vocational programmes are weak. This is a concern given the limited capacity of local governments and schools in Colombia to assess the quality of programme providers and the absence of any information on the labour-market outcomes of secondary-level vocational courses. The risk that tertiary institutions and SENA might use their presence in schools to secure enrolment in their programmes has also been noted (Qualificar, 2012).

A review of upper secondary vocational programmes in OECD programmes points to measures Colombia could take to improve the quality and relevance of vocational courses (OECD, 2010). One effective means of enhancing USE is through workplace experience, which may or may not be linked to vocational courses, and is also valuable for those choosing more academic options. In the context of the proposed comprehensive system, such experience could take many forms, but might include visits to workplaces, work shadowing of a week or so or more substantive internships, and summer work placements, particularly for those pursuing particular vocational courses who have a clear career in mind. Such experiences can serve multiple functions, but in most cases their role within a comprehensive system is to educate students about the world of work and how it operates, and provide

them with practical knowledge and experience that may guide their ultimate career choices.

At present, the provision of work placements in Colombia is left to the initiative of schools and there is evidence that few of them actually provide students with such opportunities (Qualificar, 2012). Given the large informal economy, there are likely to be fewer opportunities for more substantial apprenticeships and internships than in many OECD countries. However more could be done to encourage and enable local employers, including small and medium-sized companies, to offer students experience in the workplace. The National Federation of Coffee Growers is one successful example of an important industry in Colombia helping to build partnerships between schools and small local producers to develop vocational courses that both deepen core skills and provide opportunities to apply this knowledge in real work situations. Any move towards a greater use of apprenticeships would require a stronger regulatory framework including the establishment of quality standards, and care is needed to ensure that any more substantial unpaid work placements are not exploitative – trainees' contributions to the workplace must be balanced by learning opportunities. Regulation of work-based learning needs to balance the need for placements that will be useful to students with the need to offer visible benefits to the employer concerned (OECD, 2010).

Smoothing the transition to further education and the labour market

The quality and relevance of USE is closely related to what students can make of it afterwards. If USE is to provide an effective bridge to further education and the labour market then the right mechanisms need to be in place to help students make this transition. In Colombia, improvements in assessment and certification would help to ensure that what students learn in USE is recognised by tertiary institutions and employers. Adequate career guidance, buttressed by more practical experience of the word of work, could raise students' aspirations and help them make the right choices. Many Colombian USE students are as young as 15 or 16 years old when they graduate. As they are often the first in their family to progress beyond basic schooling, they may lack guidance at home, and/or experience home pressures (including financial pressures) that limit their career choices. The Colombian labour market also presents obstacles to employment, with high levels of informality and limited training opportunities. Addressing these labour-market challenges would help to make USE more meaningful to students and more valuable to the economy.

Assessing and certifying learning

Colombian students are not required to take a central external examination to graduate from USE. But in practice many undertake the well-established SABER 11 examination, used since 1968 and currently employed by more than 70% of higher education institutions to facilitate admission (ICFES, 2013). Given the high stakes associated with the examination, it needs to be well-designed and fair. From a technical standpoint, SABER 11 has continuously been improved to increase its reliability and validity and to align the examination with international good practice (ICFES, 2013). But, as noted above, national learning standards are needed to provide a counterweight to its inevitable influence on the upper secondary curriculum. Measures are also required to ensure that students in Colombia approach this examination on a more equal footing, as the inequity in education quality observed from the early years and throughout basic schooling continues in USE. Students who can afford to attend preparatory courses, practise sitting exams or attend schools that offer an additional year to prepare for SABER 11, clearly stand a better chance of success. While addressing these inequities requires system-wide reform, there are measures that could be taken at the upper secondary level to mitigate their influence on performance in SABER 11. For example, prioritising the full-school day and remedial after-school programmes for disadvantaged students would help them make up for lost ground. In addition, in view of the market for tutoring that has, inevitably, grown up around SABER 11, the ICFES could realise more transparency and fairness by providing full information on the content to be assessed, the structure of the exam and types of questions asked, and previous exams and answers. These steps would help to ensure that all students are equally familiar with the examination. While publishing previous exams might make test development more costly and affect comparisons across years, it would benefit the primary objective of SABER 11 which is to assess student learning outcomes.

Better ways are also needed to assess and certify skills acquired by students who pursue vocational courses. At present, this is decided by the individual partner institutions providing them and there are no mechanisms to establish consistency in assessment methods and thereby to ensure that all those with a qualification have the same mix of competences at a similar level. This puts students at risk of poor-quality provision and makes it difficult for employers and tertiary institutions to judge their skills. Colombia also lacks a system for credit recognition and transfer, which would allow skills acquired in upper secondary vocational courses to be recognised by other training or tertiary institutions. For instance, students who follow a course at a school linked with SENA might only have their learning recognised if they pursue related studies in the latter.

The government is in the process of developing a national qualifications and credit transfer system (see Chapter 5), and some local governments have already taken steps in this direction. Bogotá, for example, has established agreements to ensure that all tertiary institutions that participate in partnerships with secondary schools have their credits recognised by all other institutions, not just the one delivering the training. A well-designed qualifications and credit transfer system, with adequate engagement by employers, can raise standards, help students progress to higher levels of learning, and improve transition to the labour market (OECD, 2010). Such systems could also help to facilitate the re-entry into upper secondary of the large number of students who drop out of the education system and enable the recognition of skills they may have acquired in the workplace.

Providing effective guidance and counselling

The availability of career guidance is a central component of quality USE. Colombia does not have a clear policy on how to guide students on further educational and labour-market opportunities (Nieto et al., 2013). The education system offers limited mechanisms to help students better understand their interests, aptitudes and objectives and provide advice on the prospects and learning opportunities available. The review team was informed that there might be as few as 1 counsellor for every 10 000 students and these individuals might be responsible for a wide range of issues including the very different exercise of psychological counselling. There is greater access to online support in navigating post-secondary education, with the recent development of a series of nationwide information sources (e.g. *Buscando Carrera,* OLE, MIDE, and see Chapter 5). However, their value to students is limited by their inaccessibility, lack of user-friendliness and the fact that they require students to already have a good understanding of the options available to them. The application process for tertiary education is particularly difficult for students to navigate (see Chapter 5).

It will be important for Colombia to provide more guidance to students on what jobs, training or tertiary courses could match their skills and interests, how they can maximise their chances of being accepted to the programmes of their choice, and what options are available to them to overcome financial constraints. Without guidance and complete information, students tend to rely on informal sources of guidance such as relatives or friends and thus confine their choices to familiar experiences. Career guidance can open up new horizons, which can be particularly beneficial for students from disadvantaged backgrounds, and help those on the verge of dropping out to find meaningful reasons for staying in school. The costs of wrong choices can prove very high, both financially and in terms of unmet potential and thwarted aspirations.

Career guidance and counselling is considered an essential part of secondary education in OECD countries (OECD, 2004). As providing individual guidance can be costly, most OECD countries include mandatory career education programmes in the curriculum. The content of such programmes can vary, from providing an introduction to the world of work to developing self-awareness and the ability to manage transitions. There is also variation in delivery, from a stand-alone course to content that is integrated within a broader personal development course or across all subjects. Several authorities, such as those in Germany and Scotland (United Kingdom), have established specialised career guidance agencies outside schools to provide more reliable and objective access to information on labour-market opportunities and to counter the potential bias towards academic options from school teachers and psychologists (OECD, 2010). There is also an increasing use of innovative platforms to widen access to career guidance on a more cost-effective basis, such as the development of self-assessment tools and the creation of open access resource centres.

Bridging the gap between schools and the world of work is essential to help students make the right choices. There is much that Colombia can do at the school, municipal and departmental level to facilitate direct contact between students and employers, either through work placements by students or through employer visits to schools, so that students can see with their own eyes, and hear from those directly involved, about different jobs and career choices. In addition, labour-market information systems, which play an important role in most OECD countries to ensure that career guidance is well supported by evidence, need to be strengthened. There is limited information on local training and employment options and on the labour-market outcomes of those who opt to go straight into work upon graduating from USE. The information is spread across different surveys and aggregated at a level which does not provide students with easily accessible and usable information.

Enhancing employment opportunities

Several obstacles outside the education system in Colombia need to be addressed if upper secondary graduates are to transition successfully from school to the labour market. These include the high level of labour-market informality, gaps in legislation between the labour and education sectors, and limited access to post-secondary training and second-chance opportunities. While beyond the main scope of this study, these challenges need to be highlighted as they will influence efforts to increase participation and completion of USE.

Labour-market data, though limited, suggest that there are only a small number of vacancies for upper secondary graduates in the formal economy compared to those with more qualifications. Upper secondary graduates typically end up in low-paid low-skill positions (MEN, 2014). This underscores the importance of engaging employers not only in the design of vocational courses, but more broadly in shaping the overall strategy for the expansion of USE. It also points to the need to connect plans for the roll out of compulsory education with measures to reduce levels of informality and strengthen economic activity. This is particularly important in rural and post-conflict areas where participation in USE can be less than 10% and is unlikely to increase significantly unless combined with better labour-market opportunities.

A second challenge is the mismatch between labour and education legislation that makes it harder for upper secondary graduates to enter the formal economy. Students who have not repeated a grade complete USE at 16 or 17 years-old in Colombia but labour legislation delays entry into the labour market until 18, or 16 with written parental permission (Nieto et al., 2013). Unless students can access training opportunities, or attend a school that offers an additional year of education – which several studies have recommended to smooth the transition to further education and work (Gómez et al., 2009) – they will have limited opportunities to enter the formal economy, and face strong pressures to join the informal economy.

High dropout rates as well as uncertain and uneven quality in basic and USE hamper transition from school to work and point to the importance of second-chance opportunities for those who have dropped out. Post-secondary Vocational Education Training could act as a means of bridging the gap between comprehensive education and specific jobs and careers. Flexible modes of study, with part-time, evening and modular provision, that allow students to combine work and study and provide them with holistic support (e.g. psychological, financial and career guidance) could be strengthened to encourage young people to remain in some form of education or training even if they are also working in the informal economy, and promote the return of others. These programmes are of particular importance for the many youth who are engaged in the conflict and need to be reintegrated into society as the country transitions towards peace.

Improvements in post-secondary VET are also needed to allow those emerging from comprehensive USE at the age of 16 or 17 to receive specialised training preparing them for particular occupations or careers from age 18. The government has recognised that the Education for Work and Human Development (EWHD) sector faces many challenges, including lack of employer engagement, limited status and recognition, a proliferation of programmes, weak quality assurance, and inadequate links to the formal education system (MEN, 2015a). Tackling these challenges

will be important to ensure that investment in additional schooling leads to improvements in productivity and economic growth.

Policy issue 2: Making progress towards universal access and completion

The commitment to make USE compulsory by 2030 is an important step towards expanding participation. Yet, as many OECD countries that have enacted similar measures have found, raising the compulsory age of schooling does not in itself guarantee universal attendance and completion (OECD, 2012). Additional measures will be required to encourage and enable more students in Colombia to attain an USE. These policies will need to address the demand and supply-side factors that currently prevent many students from continuing beyond basic education or mean they drop out of USE before graduation. They must pay particular attention to rural areas, where the obstacles to participation are especially high, and place the quality of learning front and centre if students are to remain engaged and see the benefits of completing. Colombia faces a steep path to universal upper secondary attainment. However, the experience of OECD countries such as Finland and Korea shows that with the right policies it is possible to rapidly increase participation while building high-performing school systems. In a more global knowledge-based economy, Colombia faces strong imperatives to move in this direction but would also potentially benefit from high returns.

Removing the barriers to student enrolment and completion

Many factors influence a young person's decision to enrol in USE. In Colombia, surveys show that questions of access, cost and perceived value are central and closely related (Sarmiento, 2015). The steps that Colombia is taking to make participation in USE compulsory and free, and to introduce targeted financial incentives for students from very poor families, are therefore welcome. It will be equally important to address learning gaps early on, smooth the transition from lower to upper secondary education, support students at risk of dropping out and foster a positive school climate in order to increase student engagement.

Addressing learning gaps early on and supporting those at risk of dropping out

Progress towards universal access and completion of USE in Colombia will significantly depend on improvements in pre-school and basic education. As shown in Figure 4.2, high grade-repetition and dropout rates represent a significant bottleneck to higher attainment rates in Colombia, particularly

in rural areas. If all students were in the grades corresponding to their age, about 80% of Colombians would be enrolled in USE but 46% of students aged 15 and 16 are still enrolled in lower secondary education (Econometría, 2012b). This not only increases costs, it also makes effective learning more difficult, and prevents students from progressively acquiring higher skills.

Academic failure and dropping out do not happen overnight. They tend to be the result of a long process of disengagement that can be prevented through early interventions to support students who are falling behind or at particular risk of leaving school. Previous chapters of this report have suggested ways to facilitate learning progression and transition throughout the school system (see Policy Issue 1 in Chapter 3). In addition, there needs to be more contact between teachers across education levels to anticipate and address student needs. The cluster system is supposed to facilitate such collaboration, but not enough use is made of it in this way. Second, teachers need information on individual students' performance to better track and support their progress throughout the school system. This can also provide the basis for constructive dialogue on students' learning options as they enter USE, and the modules that may best suit their interests and abilities. In many OECD countries, teachers meet with students and their parents towards the end of lower secondary education to discuss their future learning pathway. Finally, increased efforts should be made to enrol students in school on time and avoid grade repetition to ensure the majority of learners are in an age-appropriate grade. This is particularly important in Grade 10, where low performance might be related to difficulties in adjusting to the new upper secondary environment and any need to repeat a grade might lead to students dropping out. These are all measures that would bring significant benefits in terms of student participation and achievement in USE.

Making attendance affordable and reducing opportunity costs

The high costs of attending USE can deter students from low income families. The abolition of school fees for USE in 2012 has been recognised as a positive step towards reducing some of the costs of participation. Prior to their abolition, school fees were common and much higher than for basic education, creating an obstacle to enrolment for those from low income groups (Gómez et al., 2009). However, the abolition of fees alone is unlikely to be sufficient to ensure access for the poorest students. An evaluation of an earlier initiative to reduce school fees in Bogotá shows that enrolment did not increase significantly for students from the lowest-income families (SISBEN 1), though it did improve (by 6%) for students from the second poorest group (SISBEN 2) (Barrera-Osorio et al., 2007). This suggests that additional measures will be required to address the financial barriers the most disadvantaged students still face, in particular the high opportunity

costs of lost income, and other indirect expenses such as school supplies, uniforms and transport costs.

The cash transfer programme *Más Familias en Acción* (More Families in Action), which is conditional on school attendance, has proved to be an important instrument to reduce poverty and encourage access to education and other social services for poor families with children between 5 and 18 years old (OECD, 2015e; see Box 1.3 in Chapter 1). Evaluations of the programme have shown some positive results in increasing school attendance and have informed further refinements over the years, including the increase in 2013 of allocations for those in Grade 11 in the poorest regions. Further differentiation could enhance the positive impact of the programme on upper secondary enrolment and completion. The OECD Labour Market, Social and Migrant Policy Accession Review of Colombia recommended raising the amount for those with higher opportunity costs of staying in education and differentiating payment rates by income groups or other living standards (OECD, 2015e). A more differentiated approach could account for the fact that the effects of the programme in urban areas are lower than in rural areas as young people have access to better-paid jobs. Another potential improvement could be to make some payment conditional on indicators of student achievement. *Más Familias en Acción* already requires school attendance and has a two-year limit on grade repetition, but incentives to promote student performance or completion could be introduced. The potential effects of these changes, however, need to be balanced against the main policy objective of the programme, which is to alleviate poverty.

Fostering a positive school climate

Adolescence is a period in which students experience important biological, physiological and social changes and are more exposed to factors that can lead to anti-social and risky behaviour. Gangs, drugs, bullying and adolescent pregnancy are prevalent in many Colombian schools and have been well documented (Alzate, 2014). A particular concern is the relatively high levels of violence students experience inside and outside schools. This is a common phenomenon in Latin American countries and has a negative effect on student engagement and performance (Roman and Murillo, 2011). School violence fuels a vicious circle with a far-reaching impact (Chaux, 2013). Victims are more likely to become disengaged from education, with long-lasting effects of higher levels of anxiety and depression. Aggressors tend to be poorer performers who are more likely to drop out early from school and engage in crime and anti-social behaviour. More broadly, schools where violence is present experience greater levels of classroom disruption and perform at lower levels, with the perception of

insecurity hampering the recruitment and retention of high-quality teachers and leading to further school segregation.

Tackling the roots of school violence is a complex challenge that extends well beyond the education system. Yet, there are important steps that schools themselves can take to reduce violence and other antisocial factors. In recent years Colombia has made significant efforts to foster a more positive learning environment. It has adopted measures including the assessment of civic competences in SABER assessments; the introduction of guidelines and curricular projects that foster holistic development (e.g. self-awareness, justice and peace, respect for the environment, sexuality education); and the development of national legislation on the school environment (MEN, 2015a). One important goal of the initiative to extend the school day is to reduce the exposure of students to negative influences outside the classroom.

An analysis of international practices to foster social and emotional skills suggests ways in which such efforts could be strengthened (OECD, 2015g). In particular, students and schools in Colombia would benefit if teachers had more training on how to engage with adolescents and strengthen their socio-emotional skills; the introduction of more psychologists and other specialists and greater co-ordination with social services; and efforts to engage students proactively in governing and creating a safe and inclusive environment in their schools. It will be important that such measures are targeted on those schools with the toughest climate and combined with measures to reduce Colombia's pervasive school segregation which creates a barrier for students seeking to overcome their socio-economic background and improve their life prospects.

Expanding the school system

The pressures on Colombia to expand its USE system are significant and will continue to grow. Participation rates are low compared to OECD and emerging world standards, hampering economic competitiveness. As Colombia's demographic window closes, and the share of the working-age population starts to decline, higher skills will become increasingly important to sustain growth. Expanding upper secondary opportunities for disadvantaged regions and groups will also be central to progress towards peace and greater equity. In stating that USE will become compulsory, and that participation in public schools shall be provided free of charge, Colombia has committed to a considerable expansion of its public school network. It will be important to target this expansion on the population groups that at present cannot access USE in order to reduce current disparities and encourage development in disadvantaged parts of the country, particularly rural areas. Given the high costs of expansion, and the multiple demands on the education budgets,

Colombia will also have to improve the efficiency of its education system if it is to meet its coverage and quality targets.

Ensuring resources are used effectively and efficiently

Overall public expenditure on USE will need to increase significantly to accommodate larger student numbers and fund much-needed quality improvements. In 2012, it was estimated that achieving full coverage for 15 and 16 year-olds would require an investment of COP 3 trillion (Colombian pesos, equivalent to USD 1 billion at October 2015 exchange rates) on infrastructure and recurrent expenditures, which together amount to approximately 10% of the MEN's total budget in 2015 (Econometría, 2012b). This estimate does not include the significant investment required to raise quality, such as meeting the need for better-qualified and more specialised teachers, developing learning materials that encourage higher standards, and overcoming the acute shortage of libraries, information and communications technology infrastructure, laboratories and other classroom infrastructure.

The scale of funding required underlines the importance of ensuring resources are used effectively and efficiently. The first investment priority must be to narrow the stark differences in enrolment, completion and performance observed across the country. In some departments in Colombia, net enrolment in USE is as low as 10% (MEN, 2015b). Redressing this balance will require improvements in the redistributional impact of the various funding mechanisms (i.e. SGP, royalties, earmarked transfers and matching funds). Resources need to be targeted better on departments and municipalities with the lowest enrolment rates, coupled with additional technical support and stronger accountability mechanisms to ensure that increased finds are well spent. At the same time, ETCs with stronger fiscal capacity should be encouraged to make greater use of their own resources to finance the expansion of USE enrolment. Brazil's experience provides an example of how greater financial co-responsibility between national and local governments can help to improve coverage and reduce equity gaps (Di Gropello, 2006). In Brazil, each level of government is required to set aside a share of revenue to finance spending on education (18% for the federal government and 25% for state and municipal governments) and contribute to a common fund to ensure that all local governments have at least the specified minimum levels of per-student expenditure.

Better information and information systems will be essential to ensure resources are targeted to address current and projected need. Currently, there are no accurate data on the number of teachers who work in USE – the single

largest expense – or on the availability and state of school infrastructure and learning resources (Econometría, 2012b). Evidence collected during the review visit suggests that education information systems, set up to meet national reporting requirements, do not address the planning and operational needs of departments, municipalities and schools. As has been seen at the basic education level, expanding USE without adequate information and needs assessment and can create considerable sunk expenditure and institutional inertia that will be difficult and costly to shift.

Designing a cost-effective approach to delivering quality upper secondary education in rural areas

The expansion of USE is likely to be particularly challenging in the many rural and remote areas of the country, where there is currently a shortage of places and the cost of provision can be particularly high. A major trade-off that countries face in rural areas is whether to opt for smaller and more scattered schools to facilitate access to education, or bigger schools that might increase quality and decrease the cost per student. In Colombia, the current trend is to favour bigger schools over smaller ones in rural areas to accommodate the growing upper secondary student population. Larger schools can facilitate the provision of a more diversified curriculum and offer more choice for students. However, it is important to establish transparent criteria for deciding the location of new schools or whether to merge existing ones. The effects of moving towards fewer but larger schools in a particular region need to be thoroughly considered, including the risks of deterring attendance or hampering student well-being and that of the local community. This is particularly important in a country where transport infrastructure is not well developed and the time as well as the cost of travel can be significant.

Flexible education models have proved an alternative way to bring education closer to students at a lower cost than conventional schools in isolated and remote areas. Colombia could draw on its long history of experimenting with a range of modalities to adapt education to local and student needs to expand enrolment in USE. In such settings, the availability and quality of key inputs for the learning process, such as facilitators and instructional materials, needs to be prioritised. Flexible education models based on new technologies could open up new opportunities for learning and reduce the isolation of rural schools. However, the costs can prove relatively high in countries such as Colombia where labour costs are low and infrastructure and connectivity are limited, and there is no evidence that new technologies can raise student learning outcomes as teachers often lack training on how to use technology.

A valuable means to improve the quality and cost-effectiveness of rural education is by creating strong school networks. In Colombia, "schools" are often a cluster of several entities that were amalgamated in the early 2000s but are still perceived as separate units with limited exchanges between them. Greater collaboration between schools can not only result in cost savings through sharing resources but also overcome the isolation of teachers and students (Ares Abalde, 2014). In England (United Kingdom), where the creation of school clusters has also been promoted, teachers and staff meet regularly to plan future activities, discuss matters of local relevance and develop specific local materials for teaching. In Québec (Canada), where particular efforts have been made to sustain the last schools of small villages, specific networking mechanisms for rural schools have been created to revitalise and professionalise staff. Some countries, such as Korea, have created "excellent" schools in rural areas where teachers of nearby schools can observe demonstration lessons and share good practice. There is considerable potential to strengthen networking across the different branches of schools in Colombia as an efficient way to improve quality.

Managing private providers

Colombia has often used public-private partnerships, such as privately operated but publicly funded schools and the provision of vouchers, to increase access where the capacity of the public school network is limited. Such partnerships are likely to remain important as USE expands so it is vital to ensure that they provide high-quality education and do not lead to further socio-economic segregation. There are indications that the quality provided by the private sector as a whole is very variable and that some schools might have reduced the cost of provision at the expense of quality. The large range of results across private schools participating in PISA suggests significant variety in terms of quality and equity, highlighting the importance of strengthening governance mechanisms to ensure more equal standards and access across the private sector (OECD, 2013a).

In managing private provision, what matters is that regulations are in place to guarantee quality, that there is a strong oversight and capacity to act when standards are not met, and that measures are put in place to prevent strong socio-economic segregation. Such mechanisms appear weak in Colombia. There are legal safeguards (such as performance contracts and tuition fee caps) but very little information on how they actually operate and whether they are enforced. There is also scope to strengthen the regulations to prevent private schools in receipt of public funding from selecting students by either ability or income (Bonilla, 2011). In the Netherlands, where the majority of schools are privately operated, stringent oversight mechanisms are in place to intensively monitor schools,

provide recommendations for improvement and closely follow those institutions which are considered weak (Van Twist et al., 2013). Mexico has also taken steps to establish a common set of minimum quality standards across the large number of USE providers through the introduction of the National System of Upper Secondary Education (*Sistema Nacional de Bachillerato*).

Policy issue 3: Building synergies for improvement

Improvements in the coverage, quality and relevance of USE in Colombia will only happen if there is strong leadership at every level of government and the full engagement of all stakeholders. Effective national leadership is needed to set a clear direction for reform, align efforts and put in place the mechanisms needed to steer reform – legislation, standards and monitoring – and ensure they are well-adapted to support equity and quality. Strong local engagement – and strong local capacity to engage – is important to ensure that USE is relevant to students and the socio-economic context in which they live, and to support improvement at the school level. Outreach to stakeholders beyond government will be needed to build momentum behind reform and mobilise the range of resources that will be required for creating a good-quality USE system.

Strengthening national leadership

A series of evaluation reports and consultations have provided a comprehensive view of the main strengths and challenges facing USE in Colombia. These laid the foundations for a national proposal for reform, which was released in the summer of 2014 (see Box 4.1). This proposal informs the commitment in the current National Development Plan to create a new architecture for USE and improve coverage and quality. The overall ambition laid down by the plan is to move progressively towards universal compulsory USE by 2030. Reaching this goal, and fundamentally transforming a sub-sector that has long been neglected and under-resourced, will require strong national leadership in the following domains:

- The development of a new vision for USE, which clarifies its position and purpose within the education system and addresses the fundamental socio-economic changes that have occurred over the last two decades and are likely to take place in the coming years. This vision will need to be translated into legislation and widely disseminated to ensure that all stakeholders are aware of what it implies for the goals, structure, governance and provision requirements of USE.

- A constitutional amendment granting full legal recognition that USE will be compulsory by 2030. This would compel national and local authorities to take the necessary steps to provide USE and offer a long-term planning horizon. It would signal to adolescents and their families that they have a right – and the obligation when provision is available – to attend USE. It would also send an important message to employers and society as a whole that the attainment of at least USE is imperative for the future of the country and so change perceptions and mobilise all actors in support of this objective. Other Latin America countries that have made USE compulsory, such as Chile (2003), Argentina (2006) and Mexico (2011), have reflected this commitment in their constitutions.
- The establishment of clear and realistic milestones at the national and local level to ensure the 2030 coverage target is met and equity gaps reduced. Expansion needs to be phased progressively; an overambitious reform agenda is likely to be less effective in raising learning and attainment levels than a strategy that builds on reforms in early years and basic education. Interim targets on the path to 2030 could help to push forward expansion efforts, and should include goals to rapidly narrow disparities in access and achievement across regions and income groups.
- Collective engagement. Universal participation in quality secondary education will only happen if the country is mobilised behind this goal. The MEN has a central role to play in ensuring equity in expansion and in setting and monitoring standards. While national standards have cost implications, they can be valuable in ensuring minimum quality in all schools and in preventing schools in poor areas from being under-resourced. The MEN also has an important responsibility in devising funding policy, in particular in exploring efficiency-enhancing measures and ways to leverage additional resources. Implementation of reform, however, will depend primarily on strengthened local leadership. The PND states that implementation plans should be devised jointly by the MEN and ETCs; other stakeholders, including employers and tertiary institutions, must also be engaged. This is essential to ensure USE expansion meets social and economic goals and addresses Colombia's pronounced diversity. Parents, students and civil society have a central role to play in creating the demand that can drive reform. The experience of OECD countries, like Korea (Box 4.2), which significantly expanded USE within a generation, show that when all actors come together, rapid progress is possible.

Box 4.2. **Lessons from the expansion of upper secondary education in Korea**

Korea's expansion of upper secondary education started in the early 1950s with a vision to build a strong education sector as an important part of its economic development strategies. Prompted by the high stakes associated with expanding education, dynamic and motivated institutions implemented the education policies. Simultaneously, the government focused on both access and quality to bring skilled, educated workers into the workforce. Korean society also played a key role in the expansion of upper secondary education as it places a high value on education and helped push forward the expansion efforts by assuming part of the costs. Consequently, Korean education policies, which focused mostly on supply-side constraints at the secondary level, delivered considerably more successful results than many other countries following similar paths. The country also progressively expanded the education cycles, starting with basic education.

Source: Di Gropello, E. (ed.) (2006), *Meeting the Challenges of Secondary Education in Latin America and East Asia: Improving Efficiency and Resource Mobilisation*, World Bank, Washington DC.

Building capacity at the local level and fostering effective partnerships with key stakeholders

The large variation in upper secondary enrolment rates and performance in SABER 11 reflect the wide disparities in levels of development and need that exist across Colombia (see Figure 1.6 in Chapter 1). In this context, a uniform approach to expansion is likely to fail or be far less effective than one where local departments and municipalities are able to shape their own policies. Yet, local governments have given USE lower political and financial priority than compulsory education. Local capacity to steer expansion is also highly variable, and often weakest in those areas of the country where the challenges are greatest (Nieto, Acuña and Casas, 2013). In the absence of a national strategy, and adequate support and accountability structures, local initiatives have tended to be discontinuous and fragmented due to political changes and unpredictable funding, often not allowing enough time for reforms to take effect (CRECE, 2012).

Addressing local capacity and accountability gaps will be central to USE expansion. The need for stronger local capacity to collect, analyse and use data applies not just to education data but also to information on population, migration and other factors that will influence the development of USE. Many local governments require considerable support in policy making and planning, but capacity and leadership remains largely concentrated at the national level. Local governments will also need to play a much more proactive role in facilitating co-operation among upper secondary schools, both to create efficiencies (e.g. sharing equipment and counsellors) and build networks of principals and teachers who can raise the quality of teaching. At present, most departments and municipalities have very few personnel available to assist schools, being mainly focused on inspection and

supervision. Little attention is paid to helping schools improve the quality of education services (CRECE, 2012). The MEN is working to strengthen ETCs' technical capacity through training, planning tools and information systems; it is important that these are designed to support local as well as national policy making (CRECE, 2012). There is also much greater scope for policy dialogue between local governments as a means to strengthen capacity and encourage local leadership. One advantage of a decentralised system is the potential for local innovation; more needs to be done to harness this potential in Colombia.

One important challenge – and opportunity – confronting departments and municipalities is how to build strategic local alliances with key stakeholders. These include SENA, a large number of tertiary institutions, a rapidly expanding productive sector, a range of very active foundations and civil society organisations, and also a number of international bodies and donors. At present, there are few platforms to bring these stakeholders together to co-ordinate the provision of USE. Where they do exist, they tend to be ad hoc and limited to specific schools, missing a valuable opportunity to expand the delivery of USE and improve its relevance to local development needs (Qualificar, 2012). Mexico, for example, has promoted the creation of local platforms to enable all stakeholders to discuss and collaborate in policies to expand USE (Box 4.3). Such platforms can help to improve the tertiary and labour-market outcomes of USE, bring additional financial, technical and material resources to schools, and also open up new horizons to students. Antioquia is an example of a department with well-established platforms to connect tertiary institutions, businesses and public authorities (see Chapter 5). Colombia might consider developing such platforms in all departments, and using them to develop local partnerships to support the modernisation of USE.

Box 4.3. **Fostering the involvement of key stakeholders in Mexico**

Since 2008, Mexico has undertaken ambitious reforms to make upper secondary education compulsory and improve its quality and relevance. To ensure national coherence in the expansion of upper secondary services, an important aspect of the reforms has been the promotion of dialogue between the federal government, state governments, universities and providers of upper secondary schools through the creation of specific bodies at the state level. In the state of Puebla, for example, this body also included local employers and researchers and, under the leadership of the local government, discussed common issues of interest such as the capacity of the school network, strategies to tackle dropout rates, professional development for teachers, implementation of national reforms, and mechanisms to facilitate transfers between systems, to develop common strategies, projects, programmes and policies.

Source: OECD (2013b), *Improving Education in Mexico: A State-level Perspective from Puebla*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264200197-en.

Recommendations

Colombia has set itself the objective of achieving universal compulsory upper secondary education by 2030. While progressively expanding participation, Colombia also plans to transform the provision of upper secondary schooling to make it more fit for purpose for an emerging economy. Achieving this reform agenda will require changes on three levels: improving its quality and relevance, increasing enrolment and completion, and building synergies for improvement.

Improving the quality and relevance of upper secondary education

Recommendation 1.1: Refocus teaching and learning on core skills and real-life applications

Colombia recognises the need to significantly improve the quality and relevance of USE. Stronger guidance to students, teachers and schools on what knowledge, skills and values should be acquired at this level will be central to this effort. Colombia has already taken steps to reduce the fragmentation of the upper secondary school curriculum, and emphasise the consolidation and deepening of core cognitive and non-cognitive skills. These efforts would benefit from a common curriculum framework that sets clear expectations of what students should learn at this level and provides guidance to teachers on how they can improve outcomes among learners with widely varying needs and degrees of preparedness. Upper secondary school teachers in Colombia required tailored pre-service and in-service training on how to teach at this level and effectively engage adolescents in learning. In particular, they require much better preparation on how to encourage self-directed learning and guide students to apply knowledge in solving real-life problems. Teaching standards should recognise the specific skills required of upper secondary teachers.

Recommendation 1.2: Retain a comprehensive approach

In redesigning the architecture of USE, Colombia should consolidate its current comprehensive approach and avoid creating strongly differentiated academic and vocational tracks. A comprehensive USE system will provide more equal opportunities to students, reduce the risk of segregation and create a broader, more flexible skills base for a fast-growing economy. Employers need to be much more engaged in the design of programmes, curricula and certification, particularly – but not exclusively – with respect to vocational courses. With the involvement of

more stakeholders in the provision of USE, quality assurance needs to be strengthened and information systems improved. Greater transparency at the departmental and municipal level about the learning, tertiary and labour-market outcomes of schools could help to raise the quality of programmes offered.

Recommendation 1.3: Strengthen mechanisms to smooth the transition into further education and the labour market

All students should approach the SABER 11 examination on an equal footing. In Colombia, this will require targeted remedial programmes to give disadvantaged students a fair chance of success and measures to ensure equal access to information about the exam, which has a significant influence on future learning and employment opportunities. Colombia should also strengthen and harmonise the assessment of skills acquired in vocational courses and involve the productive sector in this process. Tertiary and labour-market information systems should be strengthened and made more accessible to help students make the right choices about their future. Specific efforts should be made to connect disadvantaged students and schools with employers and tertiary institutions, for example through school and on-site visits and consolidated information on local opportunities. Given the large number of students in Colombia who are over-age, drop out or combine study with work, it will be essential to improve the quality of flexible models which offer these students greater flexibility, as well as post-secondary vocational education and training to support young people's transition into the formal economy.

Increasing enrolment and completion, particularly for disadvantaged students

Recommendation 2.1: Adopt an integrated approach to removing barriers to enrolment and completion

Having committed to making USE universal and compulsory, Colombia will need to address the overlapping factors that prevent the majority of young people in the country from completing upper secondary school. The conditional cash transfer programme *Más Familias en Acción* could be improved to give students incentives to continue and perform better at school, and to address the varying opportunity costs faced by students of different ages, income groups and locations. If increased enrolment is to lead to higher completion rates and better learning outcomes, teachers and schools in Colombia will need greater help to

address learning gaps early on and develop support strategies for those at risk of dropping out. The introduction of a unique student number that enables learners to be monitored throughout their education career could be a useful instrument in this regard. Support services (e.g. psychologists and counsellors) and extracurricular activities should be made more widely available in disadvantaged schools, and teachers and principals given more guidance on how to manage adolescent behaviour and foster a positive school climate.

Recommendation 2.2: Improve the equity and efficiency of resource allocation

While the expansion of USE is likely to require an overall increase in education expenditure, there are ways in which current resources could be redeployed to achieve better results. Local governments could be encouraged to increase co-financing if they have the fiscal capacity, in conjunction with more flexibility in the local allocation of resources. Investment in improving the quality of local information on education capacity, demand and resource use from the start would support long-term efficiency gains. This should be prioritised in rural areas and less-developed departments and municipalities, and can then guide the allocation of increased funds to the regions with the greatest need. In rural areas, larger schools are likely to enable the provision of better quality education to more students at lower cost. However, small schools will continue to occupy an important place in the rural school system, and their quality and viability could be improved through greater networking and sharing of resources. Where flexible educational approaches are required, ensuring that teachers and facilitators are well trained and students have appropriate instructional materials is key to ensuring that improved access brings better learning outcomes. More stringent oversight measures are needed to guarantee standards in private schools.

Building synergies for improvement

Recommendation 3.1: Strengthen national leadership for reform

The national commitment to make USE compulsory by 2030 needs to be reflected in strong legislation and translated into national and local plans that specify the roles and responsibilities of different stakeholders in reaching this goal. Interim milestones will be needed to steer this expansion, including clear targets for reducing equity gaps between and within regions and socio-economic groups.

Recommendation 3.2: Reinforce local capacity and partnerships

Local governments have primary responsibility for the expansion of USE and, in consultation with key stakeholders, should develop plans on how they will move progressively towards universal participation by 2030. The MEN should provide training, planning tools and information systems to facilitate local planning and implementation, in particular where capacity is weak. More should also be done to strengthen policy dialogue and peer learning between local governments. Likewise, local governments need to play a proactive role in supporting schools in their territories, facilitating co-operation and resource sharing between them, and building networks of school leaders to raise performance. Both local governments and schools will need more support to build and manage partnerships, in particular with employers. The creation of dedicated local platforms where key stakeholders can discuss and co-ordinate planned reforms of USE could help to mobilise additional resources and ensure that all partners are working together towards the same goals.

Notes

1. ISCED level 3 refers to UNESCO's International Standard Classification of Education (ISCED-11) which is the framework for the classification of education programmes and related qualifications by education levels and fields. Specifically, for upper secondary education, level 3 refers to upper secondary education programmes which aim to prepare individuals who complete this educational level for tertiary education (higher ISCED levels) or for employment. ISCED level 3 programmes have two categories: general and vocational. Programmes within these categories differ by their duration, completion and access to higher ISCED levels.
2. Using the exchange rate on 13 September 2015.
3. Level 1 in the Identification System of Potential Beneficiaries of Social Programmes (*Sistema de Identificacion de Potenciales Beneficiarios de Programas Sociales*, SISBEN), a proxy means-based test tool used by the government to identify the most disadvantaged Colombian families so that they may access social programmes (SISBEN, 2015).
4. Enrolment rates can be expressed in net enrolment rates or gross enrolment rates. The net enrolment rate refers to the percentage of students in the theoretical age group for a given level of education enrolled in that level as a percentage of the total population in that group. The gross enrolment rate refers to the general level of participation in a given level of education. Because of students repeating grades, the gross enrolment rate can be larger than 100%. The net enrolment rate is equal to the number of students of the expected school-age divided by the school-age population, and hence it is always lower than 100%.

References

Alzate, M.M. (2014), "Adolescent pregnancy in Colombia: The price of inequality and political conflict", in A.L. Cherry and M.E. Dillon (eds.), *Interrnational Handbook of Adolescent Pregnancy,* Springer US, pp. 241-255.

Ares Abalde, M. (2014), "School size policies: A literature review", *OECD Education Working Papers*, No. 106, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jxt472ddkjl-en.

Barrera-Osorio, F., L. Linden, and M. Urquiola (2007), *The Effects of User Fee Reductions on Enrollment: Evidence from a Quasi-Experiment*, Columbia University, Department of Economics, New York.

Chaux, E. (2013), "Violencia escolar en Bogotá: Avances y retrocesos en 5 años", *EGOB Documentos de Trabajo*, No. 5, Universidad de los Andes, Bogotá.

CRECE (2012), *Valoracion del Marco Legal y Administrativo de la Educacion Media en Colombia: Informe Final*, Centro de Estudios Regionales Cafeteros y Empresariales, Manizales.

Cunningham, W. and P. Villaseñor (2014), "Employer voices, employer demands and implications for public skills development policy", *Policy Research Working Paper*, No. SQP 6853, World Bank, Washington DC.

Di Gropello, E. (ed) (2006), *Meeting the Challenges of Secondary Education in Latin America and East Asia: Improving Efficiency and Resource Mobilization*, World Bank, Washington DC.

DNP (2015), *Bases Plan Nacional de Desarrollo 2015-2018*, Departamento Nacional de Planeación (National Planning Department), Bogotá.

Dumont, H., D. Istance and F. Benavides (eds.) (2010), *The Nature of Learning: Using Research to Inspire Practice*, Educational Research and Innovation, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264086487-en.

Econometría (2012a), "Documento 2 – Evaluacion de impacto", *Evaluación de la Estrategia de Articulación de al Educación Media con la Educación Superior y la Formación para el Trabajo: Informe Final*, Departamento Nacional de Planeación (National Planning Department), Bogotá.

Econometría (2012b), *El Marco Financiero de la Educación Media en Colombia*, Ministry of National Education and International Organization for Migration, Bogotá.

Econometria/SEI (2014), *Colombia – Evaluación Institucional y de Resultados de la Estrategia Modelos Educativos Flexibles (MEF),* Departamento Nacional de Planeación (National Planning Department) and Ministry of National Education, Bogotá.

Gómez Campo, V.M., C.M. Díaz Ríos and J.E. Celis Giraldo (2009), *El Puente está Quebrado...: Aportes a la Reconstrucción de la Educación Media en Colombia,* Facultad de Ciencias Humanas, Universidad Nacional de Colombia, Bogotá.

ICFES (2013), *Sistema Nacional de Evaluación Estandarizada de la Educación: Alineación del Examen SABER 11*, Instituto Colombiano para la Evaluación de la Educación (Colombian Institute for the Evaluation of Education), Bogotá.

MEN (n.d.), "La deserción escolar", unpublished document, Ministerio de Educación Nacional (Ministry of National Education), Bogotá, www.mineducacion.gov.co/1621/articles-293659_archivo_pdf_abc.pdf.

MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2015b), "Estadísticas sectoriales de educación básica y media", Ministerio de Educación Nacional (Ministry of National Education) website, http://menweb.mineducacion.gov.co/seguimiento/estadisticas/.

MEN (2015c), "Lineamientos curriculares", Ministerio de Educación Nacional (Ministry of National Education) website, www.mineducacion.gov.co/1621/w3-article-339975.html.

MEN (2014), "Modernización de la educación media: Establece los propósitos, estrategias y orientaciones para el mejoramiento de la educación media", unpublished document, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2013a), "Hacia un pensamiento estratégico para el fortalecimiento de la Educación media: síntesis de estudios", unpublished document, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2013b), "La educación media rural en Colombia: Caracterización de la Educación media rural en Colombia y sistematización de experiencias innovadoras", unpublished document, Ministerio de Educación Nacional (Ministry of National Education), Manizales.

MEN (2010), "Introducción tarifas y costos educativos", Ministerio de Educación Nacional (Ministry of National Education) website, www.mineducacion.gov.co/1621/w3-article-220372.html.

MEN (2006), *Estándares Básicos de Competencias en Lenguaje, Matemáticas, Ciencias y Ciudadanas: Guía Sobre lo que los Estudiantes Deben Saber,* Ministerio de Educación Nacional (Ministry of National Education), Bogotá, www.mineducacion.gov.co/1621/w3-article-340021.html.

MEN/ICETEX (2011), *Fondo de Fomento de la Educación Media* (Incentive to Upper Secondary Education Fund), Ministerio de Educación Nacional (Ministry of National Education)/ Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior (Colombian Institute for Student Loans and Study Abroad), www.mineducacion.gov.co/1621/article-190684.html (accessed 13 August, 2015).

National Congress (1994), "Ley 115 de Febrero 8 de 1994", National Congress of Colombia, www.mineducacion.gov.co/1621/articles-85906_archivo_pdf.pdf.

Nieto, C., E.M. Acuña and A. Casas (2013), "Hacia un pensamiento estratégico para el fortalecimiento de la Educación media", unpublished document, Ministerio de Educación Nacional (Minsitry of National Education).

OECD/ADB (2015), *Education in Indonesia: Rising to the Challenge*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264230750-en.

OECD (2015a), "ISCED 2011 Level 3: Upper secondary education", in OECD/Eurostat/UNESCO Institute for Statistics, *ISCED 2011 Operational Manual: Guidelines for Classifying National Education Programmes and Related Qualifications*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264228368-7-en.

OECD (2015b), *Education at a Glance Interim Report: Update of Employment and Educational Attainment Indicators*, OECD Publishing, Paris, www.oecd.org/edu/EAG-Interim-report.pdf.

OECD (2015c), *OECD Skills Outlook 2015: Youth, Skills and Employability*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264234178-en.

OECD (2015d), *OECD Economic Surveys: Colombia 2015*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-col-2015-en.

OECD (2015e), *OECD Reviews of Labour Market and Social Policies: Colombia 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264244825-en.

OECD (2015g), *Skills for Social Progress: The Power of Social and Emotional Skills*, OECD Skills Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264226159-en.

OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

OECD (2013a), *PISA 2012 Results: What Makes Schools Successful? (Volume IV): Resources, Policies and Practice,* PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.

OECD (2013b), *Improving Education in Mexico: A State-level Perspective from Puebla*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264200197-en.

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

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

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

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

Qualificar (2012), "Informe propositivo de la oferta de educación media", Proyecto Valoración y Formulación de Propuesta para una Oferta Educativa de Mayor Relevancia y Pertinencia para la Educación Media, unpublished document, MEN/International Organization for Migration/UNICEF/USAID, Bogotá.

Murillo, F. J. and Roman, M. (2011), "School infrastructure and resources do matter: analysis of the incidence of school resources on the performance of Latin American students", *School Effectiveness and School Imrpovement,* Vol. 22/1, pp. 29-50, Routledge.

Sahlberg, P. (2007), *Secondary Education in OECD Countries: Common Challenges, Differing Solutions*, European Training Foundation, Torino.

Sarmiento, A. (2015), *Misión Calidad para la Equidad: Educación para el Desarrollo Humano*, United Nations Development Programme, Bogotá.

SISBEN (2015), SISBEN website, Departamento Nacional de Planeación (National Planning Department), www.sisben.gov.co/default.aspx.

Smits, W. (2007), "Industry-specific or generic skills? Conflicting interests of firms and workers", *Labour Economics,* Vol.14/3, pp. 653-663.

UNESCO-UIS (2015a), "Country profiles: Colombia", *Data Centre,* UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/country-profile.aspx?code=COL&regioncode=40520.

UNESCO-UIS (2015b), "Browse by theme: Education", *Data centre,* UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx.

UNC (Universidad Nacional de Colombia) (2010), *Informe Final: Identificar y Realizar un análisis de los Factores Associados a la Permanencia y Deserción Escolar de las Instituciones Educativas Oficiales del País,* Contrato de Interadminitrativo No. 1039, Universidad Nacional de Colombia, www.mineducacion.gov.co/1621/articles-293674_archivo_pdf_institucional.pdf.

van Twist, M. et al. (2013), "Coping with very weak primary schools: Towards smart interventions in Dutch education policy", *OECD Education Working Papers,* No. 98, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k3txnpnhld7-en.

Weinstein, J., M. Hernández and G. Muñoz (2014), *El Liderazgo Escolar en América Latina: Un Estado del Arte con Base en Ocho Sistemas Escolares de la Región*, UNESCO Oficina Regional de Educacion para America Latina y el Caribe (Regional Bureau for Education in Latin America and the Caribbean) and Universidad Diego Portales, Santiago.

World Bank (2015), Enterprise Surveys website, www.enterprisesurveys.org/.

Chapter 5

Tertiary education in Colombia

This chapter covers tertiary education (TE) and the key policy issues Colombia faces as it seeks to transform a higher education sector focused on academic education into an integrated system that encompasses all institutions, including technical, technological and professional education. It explores how Colombia can continue improving the quality and relevance of TE while also attracting and accommodating a larger and increasingly diverse student body. It highlights the need for enhanced efforts to guide and support students throughout their TE career, in particular young people from disadvantaged backgrounds, and address the economic and geographical obstacles to access. It also examines policies to reinforce the quality assurance system to guarantee a minimum quality of provision and foster a culture of improvement. Finally, the chapter looks at the system-level changes needed to deliver these reforms successfully, including a fundamental revision of tertiary funding and stronger local governance to connect TE institutions with the economy and labour market.

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.

Tertiary education (TE) refers to all formal post-secondary education, university and non-university, lasting at least two years (ISCED levels 5-8).[1] In Colombia, as across OECD countries, the diversification of education providers and changing labour-market demands for skills has led to an increasingly complex TE landscape where traditional institutional boundaries are becoming blurred. A major priority for the country is to manage the transition from a higher education sector (*educación superior*) focused mainly on academic education, to a more diverse but integrated system that encompasses all forms of education leading to tertiary qualifications, including technical, technological and professional education.

TE is vital if a nation is to succeed and prosper. A growing body of evidence shows the positive impact of higher levels of educational attainment on a wide range of social and economic outcomes, from wage growth and productivity to political engagement and social equality (OECD, 2015b; Arango and Bonilla, 2015). The growing importance of TE is reflected in surging demand, in particular in emerging economies, like Colombia, where the skills needed are fast evolving. Today, Colombia's gross enrolment rate in TE is close to 50%, double that of a decade ago, and 21% of 25-64 year-olds had attained a tertiary-level education. Of these, around half have graduated from programmes at the bachelor's degree level or equivalent,[2] while the rest have degrees from shorter, vocational tertiary programmes[3] (UNESCO-UIS, 2015; OECD, 2015a). Around 84% of those with TE are in employment, compared to 72% among those with an upper secondary level of education (OECD, 2015a). Importantly, Colombian tertiary graduates are more likely to be in formal employment, which is better paid and more secure, than those who did not progress beyond school (Castaño, 2012). A recent national consultation showed that some 98% of Colombians consider TE to be important to the future of the country, and strengthening the TE system is a central plank of the government's National Development Plan 2014-2018 (*Plan Nacional de Desarrollo 2014-2018*, PND) (CESU, 2014; DNP, 2015).

In 2012, the OECD and the World Bank undertook a detailed review of TE policy in Colombia at the request of the government (OECD/IBRD/The World Bank, 2013). It noted many achievements, but also identified several issues and challenges (Box 5.1). These were echoed in the *Commitment for Excellence 2034*, the final report of an extensive consultative evaluation undertaken between 2012 and 2014 by the National Council of Higher Education (*Consejo Nacional de Educación Superior*, CESU) (Box 5.4). The report concluded:

> "The current system of tertiary education (principally but not totally structured around Law 30, 1992) faces enormous challenges to quality, requires a more equitable and universal funding model, needs a less confusing system design for the country, demands greater accountability and transparency and greater efficiency of tertiary education institutional management, to provide an

education consistent with the regional national context and relevant to the world. There is awareness that barriers to access should be "eliminated to encourage interaction, integration and mobility between institutions and between the different actors within tertiary education" (CESU, 2014: 24).

Box 5.1. **Main findings of the 2012 OECD-World Bank review of tertiary education in Colombia**

1. Though the principle of fair and equitable access to tertiary opportunities is widely supported, this has yet to be achieved in practice.
2. Colombia's school leavers are far less ready and well-prepared to enter and succeed in tertiary education (TE) than their counterparts in competitor countries. They are younger and have achieved lower educational standards, unless they attended elite private schools. This results in inequity in the access of less advantaged students and high dropout rates.
3. The systems for allocating public resources between tertiary education institutions (TEIs) are not well aligned with the country's economic needs and student aspirations. Nor do they take enough account of how institutions differ in quality, performance and value for money.
4. The tertiary quality assurance system still needs considerable improvement, particularly as it applies to non-university programmes and institutions.
5. Technological and professional technical education, vital to the country's economy, is regarded as the poor relation of the university sector by students, their families and tertiary providers alike. Large numbers of technical and technological (T&T) providers would prefer to upgrade to university level than focus on becoming excellent T&T institutions; large numbers of their students want to move on to university rather than into the labour market when they graduate.
6. Colombia still has some way to go to establish ladders and pathways through the system for students wishing to progress up through the tertiary levels. A simpler and clearer hierarchy of tertiary degrees and qualifications would be helpful.
7. There is also scope for improving the links between institutions, particularly public universities, and employers; the level of investment in research; the transparency of many important processes and decisions, including the financial arrangements of private institutions; accountability for outcomes and use of resources; and the internationalisation of the tertiary system.

Source: OECD/IBRD/The World Bank (2013), *Reviews of National Policies for Education: Tertiary Education in Colombia 2012*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264180697-en.

This chapter looks at Colombia's progress on reforming TE since 2012 and how policy priorities have evolved. It provides an overview of the main characteristics of TE and identifies three policy issues that the sector needs to

address if it is to realise its potential for national development: equitable access, higher and consistent quality, and effective governance and funding.

Context and main features

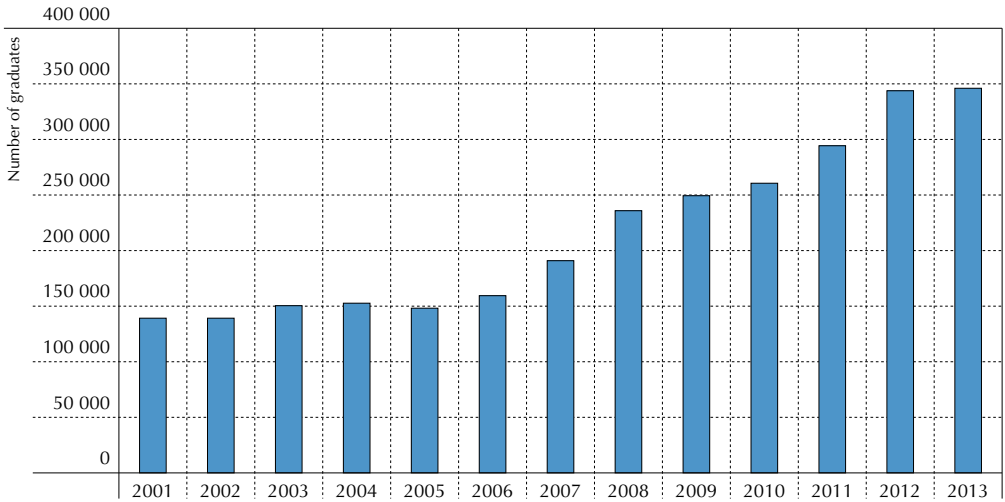
Recent developments and current policy goals

The Colombian tertiary education system has made remarkable progress over the last decade. Rising numbers of young people, particularly students from low-income households, have entered and graduated from TE (OLE, n.d; DNP, 2015 and Figure 5.1). The range of programmes has widened, giving access to an increasing, and increasingly diverse, student population. Colombia's very best universities are achieving international standards and many more young people have attained the professional technical and technological knowledge and skills needed to expand Colombia's economy. In the Colombian Institute for Student Loans and Study Abroad (*Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior,* ICETEX), the country has an excellent student loans system, the first in the world, which has given students from less advantaged families better and fairer chances to undertake TE. The country's National Training Service (*Servicio Nacional de Aprendizaje*, SENA), is generally agreed to be a useful and business-friendly provider of technical and technological (T&T) education. Impressive information systems have been set up for gathering data on education institutions, analysing the reasons for student dropout rates and evaluating student performance. With the introduction in 2009 of the national standardised assessment, SABER PRO, Colombia established itself as a pioneer in assessing the value-added of TE to students' skills.

The PND 2014-2018 outlines how Colombia plans to build on these achievements in the years ahead. It recognises that if TE is to support national development goals, it needs to offer greater access to students from disadvantaged groups and regions, higher quality and more relevant programmes, and better integration between levels to remove barriers to the progressive acquisition of higher skills. In order to achieve these overarching objectives, the PND 2014-2018 introduces the following principal policies:

- Establish the National System of Tertiary Education (*Sistema Nacional de Educación Terciaria*, SNET) to restructure all education and training after upper secondary education into to two pillars: a university pillar and a tertiary vocational education and training (VET) pillar.
- Complete and implement the National Qualifications Framework (*Marco Nacional de Cualificaciones*, NQF) to classify and structure knowledge, skills and attitudes into levels. The NQF will also enable all graduates to demonstrate to future employers their skills and competencies.

Figure 5.1. **Tertiary education graduates (2002-13)**



Source: OLE (n.d.), "Estadística de interés", Observatorio Laboral Para la Educación website, www.graduadoscolombia.edu.co.

- Establish a National System for Credit Accumulation and Transfer (*Sistema Nacional de Acumulación y Transferencia de Créditos*, SNACT), with guidelines to be defined by the Ministry of National Education (*Ministerio de Educación Nacional*, MEN). Along with the NQF, this system is intended to facilitate mobility between educational institutions, levels of training and programmes.
- Support tertiary education institutions (TEIs) in improving quality, and improve the efficiency and relevance of the quality assurance system. A National Quality System for Tertiary Education (*Sistema Nacional de Calidad de la Educación Superior*, SISNACES) will be established to bring together existing quality strategies and agencies.
- Design and implement the government's "master plan" for expansion of coverage with quality: the aim of this plan is to close access, equity and quality gaps between rural and urban areas and between Colombian regions or departments.
- Support advanced training of teachers. In particular, strengthen training at master's and doctorate levels, ensuring that programmes meet the necessary quality standards, and promote research from these levels.

Governance

Tertiary education is regulated by Law 30 of 1992,[4] and the freedom of teaching, learning and research for tertiary institutions guaranteed by the constitution. The national government, through the MEN and the Deputy Ministry of Higher Education, has lead responsibility for TE policy making, management and oversight, as it does for every stage of human capital development in Colombia. However, many other national bodies and agencies support the work of the MEN, creating a particularly complex governance structure. Governance is rendered all the more diffuse by the considerable autonomy of tertiary institutions in the country.

The National Council for Higher Education (*Consejo Nacional de Educacion Superior,* CESU), an agency with planning and co-ordinating functions, provides advice and recommendations to the MEN on TE development and quality assurance. CESU is chaired by the Minister of Education and its members come from academia, science, business and other public agencies. The MEN's management and administration system is complemented by the National Inter-sectorial Commission for Higher Education Quality Assurance (*Comisión Nacional para el Aseguramiento de la Calidad de la Educación Superior*, CONACES), which evaluates the basic requirements for the creation of academic institutions and programmes, and the National Accreditation Council (*Consejo Nacional de Acreditación*, CNA), which evaluates the voluntary "high quality accreditation" system (see below). In addition, the Association of Colombian Universities (*Asociacion Colombiana de Universidades,* ASCUN) represents and acts as an interlocutor for Colombian universities with the government for the promotion of TE quality, autonomy and social responsibility.

SENA, which is part of the Ministry of Labour, not the MEN, also plays a significant role in shaping the development and delivery of TE. An increasingly important provider of vocation courses at the upper secondary level, SENA already dominates the provision of tertiary VET programmes, as well as being the most important provider of non-formal VET (known as education for work and human development, EWHD). SENA has considerable autonomy in relation to the national government, although new systems for accreditation and certification are intended to improve its integration into the TE sector.

The governance arrangements for TEIs are marked by considerable autonomy, though this varies by institutional type. All TEIs are autonomous legal entities, with fewer restrictions and controls than in most developed countries, although their degree of autonomy might be compared with universities in the United Kingdom. In Colombia, TEIs may generate and modify their own statutes; create, organise and develop their own academic programmes; define and organise their own academic, teaching, scientific

and cultural activities; grant their own degrees; select their own teachers; decide their own criteria for admitting students; and decide how to spend their institutional resources.

Private-sector TEIs may be private non-profit corporations, foundations or solidarity institutions; they are governed according to the law and accounting requirements applicable to other organisations in their category. The OECD-World Bank 2012 report observed that Colombia's rules and requirements for private non-profit corporations are not sufficient to ensure the transparency of TEIs that a well-functioning, student-centred system requires when it comes to financial arrangements, processes, decision making and value for money from publicly funded student support (OECD/IBRD/The World Bank, 2013).

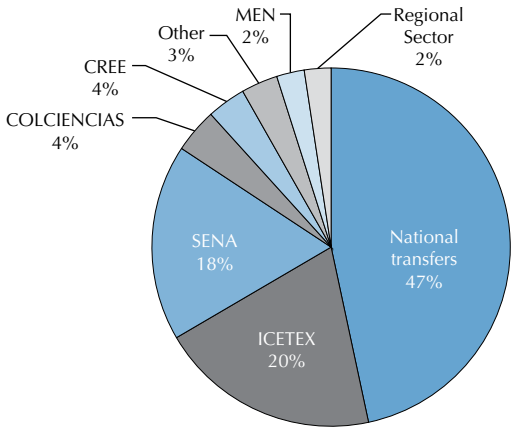
At the institutional level, most TEIs have a traditional governance structure in which the rector and the governing board are the main decision makers. Governing boards include a range of stakeholders, notably the rector and his/her staff, faculty, students and sometimes government representatives. Interviews conducted during the review visit pointed to the lack of any representatives of the wider public interest, in particular the private sector and employers, and the limited incorporation of national and regional development goals in institutional decision making, a concern also expressed in the OECD-World Bank 2012 report (OECD/IBRD/The World Bank, 2013).

Funding

In 2013, total public spending for TE amounted to COP 5.6 trillion (Colombian pesos; USD 2 billion, as at October 2015), of which close to half (47%) was in the form of direct transfers from the national government to TEIs (MEN, 2015a and Figure 5.2). An additional 20% was provided through student loans via ICETEX, the national government body for student loans. The majority of ICETEX loans go to less affluent students, though ICETEX also supports Colombian graduates studying outside the country and short-term visitors from abroad. SENA contributed 18% of total TE funding and regional governments (departments and municipalities) just 2.4%. Other agencies that fund TE include the Administrative Department of Science, Technology and Innovation (*Departamento Administrativo de Ciencia, Tecnología e Innovación*, COLCIENCIAS), which directs and co-ordinates national policy on science, technology and innovation; and the Fund for the Development of Higher Education (*Fondo de Desarrollo de la Educación Superior*, FODESEP), which helps fund special projects for TEIs through various credit options, both directly and through commercial banks. These include loans to T&T institutions to develop computer networks or acquire equipment. The PND 2014-2018 plans for FODESEP to be integrated within ICETEX. Public institutions can also charge fees and generate income from research contracts

and donations. Self-generated income makes up around 47% of the total income of Colombian public tertiary institutions (CESU, 2014).

Figure 5.2. **Public spending on tertiary education (2013)**



Source: MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

The bulk of national transfers to TEIs are based on historical allocations set over two decades ago. While enrolment has increased five-fold over this period, allocations have not evolved to reflect student numbers, nor to address significant changes and differences in per student cost across institutions and programmes. Considerably more public resources are allocated to universities than to other public TEIs. In 2012, USD 2 385 was allocated for every university student, USD 130 for students in university institutions and USD 520 for students in T&T institutions. Some public universities receive a much higher subsidy per student than others: in 2012 the government subsidy varied from USD 5 682 for the National University of Colombia to USD 294 for the Francisco José de Caldas District University (MEN, 2015a). As the OECD and World Bank 2012 report noted:

> "According to Law 30 of 1992, the main reference criteria for distributing direct government contributions to public universities and institutions are the budget and costs recorded in 1993, adjusted for inflation. The present allocation model does not take unit costs into consideration; [...] no allowance is made for the distribution of students by levels and academic programme. The model does not reward institutions for efficiency (minimising dropout, maximising completion rates) or relevance (employment outcomes of graduates),

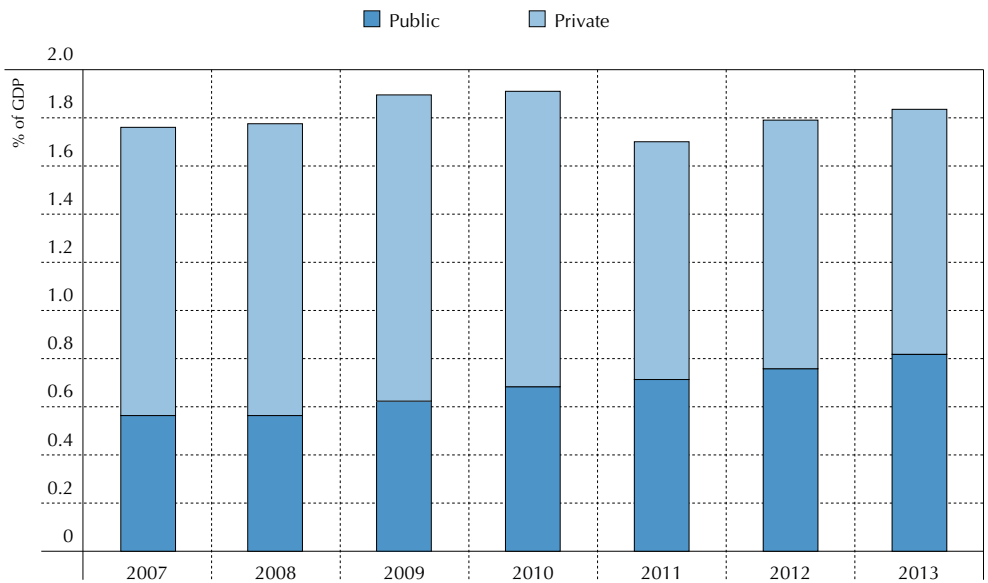
and does not even meet the additional costs that institutions incur as a result of increases in the number of enrolled students," (OECD/IBRD/The World Bank, 2013: 278-279).

The Colombian government put forward useful proposals to reform the allocation system in 2011, but these fell when the bill to amend Law 30 was withdrawn. Notwithstanding efforts to improve the effectiveness of resource allocations through student loans and other measures, the present unreformed system of national transfers has serious implications for the quality and scope of provision at the different institutions (see Policy Issue 3).

Private institutions are funded by students' fees. The 2012 OECD and World Bank report found that fees in private institutions were about six times those in public institutions (OECD/IBRD/The World Bank, 2013). Students in private institutions can also access ICETEX loans if their institution has signed an agreement with ICETEX.

Over the period 2007-13, private spending on TE has been somewhat higher than the public-sector contribution, but the difference has narrowed as the public sector contribution rose (Figure 5.3). Total TE expenditure as a percentage of gross domestic product (GDP) peaked at 1.9% in 2010, falling to 1.7% in 2011 and then rising again, to 1.8% in 2013.

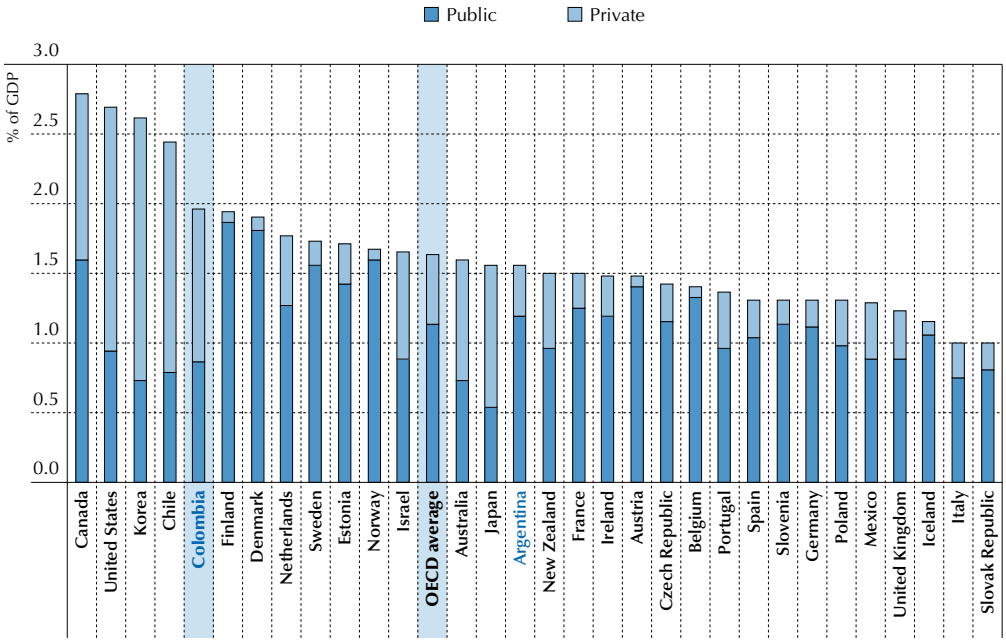
Figure 5.3. **Expenditure on tertiary education from public and private sources, percentage of GDP (2007-13)**



Source: MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

As Figure 5.4 shows, in 2011 Colombia spent more on TE as a percentage of GDP than the averages for OECD and Latin America and the Caribbean (LAC) countries, and more than most of the OECD countries shown, except Canada, Chile, Korea and the United States. Colombia resembles Chile, Japan, Korea and the United States in having a greater share of private rather than public investment in TE. Public spending per student as a percentage of GDP per capita, while below the OECD and LAC averages, is similar to levels in Australia and the United States, and above Chile and Korea (OECD, 2014b).

Figure 5.4. **Expenditure on tertiary educational institutions from public and private sources, percentage of GDP (2011)**



Note: Non-OECD countries are shown in blue.

Source: OECD (2014b), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

Recently, several new sources of funding have been established for TE investment. Since 2012, 10% of Colombia's oil and mining royalties have been earmarked to fund science, technology and innovation. Law 1607 of December 2012 created a special allocation for public institutions to be funded from the Income Tax for Equality (CREE)[5] which could be used to supplement institutional strengthening projects. The CREE was reformed in 2014 to become

a permanent tax and to increase funds for TE from 0.4% to 0.6% of the tax base from 2016. In 2013, the government confirmed the National Pro-University Stamp Law (*Ley de Estampilla Pro-Universidad Nacional*), extending a stamp tax to the National University of Colombia and other public universities to help with infrastructure improvements, development of research and innovation, student welfare programmes and the reduction of fees for the poorest students, those in income strata 1, 2 and 3 (out of six). Most recently, the government created 10 000 new scholarships a year for four years from 2014 (known as Hard Work Pays Off, *Ser Pilo Paga*), which has significantly increased loan financing for students from low-income groups with good results in the national exit exam from upper secondary education, SABER 11. In 2015, the government also introduced a new ICETEX student loan known as Choose (*Tú Eliges*) which offers more flexible repayment schemes for disadvantaged students from SISBEN levels 1-3[6] with SABER 11 results higher than 280 points.

Tertiary institutions

Colombia's tertiary system is more complex than most. It has four categories of TEIs offering six different levels of tertiary qualification. Institutions in higher categories may offer programmes appropriate to lower categories, but not vice versa.

1. **Universities** offer academic undergraduate programmes and graduate programmes leading to master's and doctoral degrees (ISCED 2011 levels 6, 7 and 8; see endnote 1), and engage in scientific and technological research.
2. **University institutions** and **technological schools** offer undergraduate programmes up to professional degree level (ISCED 2011 level 6) and a type of graduate programme known as a "specialisation", a career-related qualification above bachelor's but below master's level.
3. **Technological institutions** offer programmes up to technologist level (ISCED 2011 level 5), distinguished from professional technical level by their scientific basis. Students may go beyond this to professional degree level provided the programmes are taught as "propaedeutic cycles", meaning students proceed to their professional degree first via a technical, then a technological qualification, each conferring progressively wider and higher-level knowledge and skills in the same subject area.
4. **Professional technical institutions** offer technical level training for a particular job or occupation (ISCED 2011 level 5).

The latter two groups are known collectively as T&T institutions. Each of the four categories contains both public and private institutions. In 2013 there were 82 public institutions and 206 private (Table 5.1). The number of

institutions has been relatively stable in recent years, growing from 281 to 288 between 2009 and 2015.

Table 5.1. **Tertiary education institutions, by type (2013)**

Sector/level	Public	Private	Total
University	32	50	82
University institution/ technological school	29	92	121
Technological institution	12	39	51
Professional technical institution	9	25	34
Total	**82**	**206**	**288**

Source: MEN (n.d.a) (2015), "SNIES: Sistema Nacional de Informacion de la Educación Superior", Ministerio de Educación Nacional (Ministry of National Education) website, www.mineducacion.gov.co/sistemasdeinformacion/1735/w3-propertyname-2672.html.

In July 2015, Colombian TEIs offered 10 765 different programmes, of which 2% were doctoral programmes, 17% master's degrees, 25% specialisations, 35% undergraduate degrees and 21% non-university degrees (MEN, n.d.a). Universities offered 67% of all programmes, university institutions offered 21%, technological institutions offered 8% and professional technical institutions offered 4% (CESU, 2014). Of the 10 765 programmes, 63% were offered by private institutions (MEN, n.d.a).

SENA provides over half of all technological and professional technical education programmes in Colombia – 58% in 2013 – although it is not formally considered a T&T institution. Originally funded by a levy on employers of 2% of their payroll, and now through CREE, SENA is able to provide a wide range of training programmes fee-free to learners, with the result that its courses are very popular, but also very oversubscribed.

Quality assurance and information systems

Colombia is in the process of reforming its quality assurance system. The adoption of Law 1740 on 23 December 2014 has increased the MEN's capacity to collect information from institutions, guarantee reasonable use of institutional revenues and assets, and carry out its inspection and supervisory functions. Law 1740 also required the national government to present within one year a bill to Congress to establish a Superintendency for Education to oversee compliance with administrative and financial procedures. Efforts are underway to define the role of this new entity, whose functions are likely to

include guaranteeing the right to education; the constitutional and legal goals of education; university autonomy; the rights of the different groups that make up the academic community; and the quality, efficiency and continuity of educational services. How it will fit in to Colombia's already complex governance structure is unclear.

Colombia's quality assurance system for TE currently relies on two main instruments. The first, administered by CONACES, is intended to ensure that all programmes and TEIs meet minimum standards. CONACES checks that programmes comply with a number of quality-related conditions. If so, they are authorised by MEN and added to the Register of Qualified Programmes (*Registro Calificado*). New programmes and institutions need to be authorised before they can recruit students. Programmes on the register must renew their qualified status every seven years. The OECD-World Bank report of 2012 noted that the minimum standards secured by admittance to the Register of Qualified Programmes were quite low.

The second instrument is known as Voluntary High Quality Accreditation (VHQA). VHQA is a "peer review" process designed to encourage continuous self-evaluation, self-regulation and institutional/programme improvement. Institutions choose whether to apply as institutions, and which programmes to apply for. The CNA, composed of members representing the academic and scientific community, sets the quality criteria, carries out the evaluation process, and makes recommendations to the MEN on whether or not to grant accreditation, and if so, for how long. How soon institutions have to apply for re-accreditation depends on the length of the original accreditation, which can last from three to ten years.

As Table 5.2 shows, as of December 2013, only 12% of institutions and 9% of programmes had achieved VHQA. The lists is dominated by the universities which make up 28% of all TEIs but hold 82% of all institutional accreditations, and offer 67% of all programmes but hold 82% of all programme accreditations. Private universities constitute 60% of all universities and hold 60% of the institutional accreditations. Very few T&T institutions, or their programmes, have achieved VHQA status.

However, it cannot be assumed that all unaccredited institutions and programmes are of poor quality. Accreditation is voluntary, and many institutions do not see the need or benefit of putting themselves through the evaluation process, particularly if they perceive that few institutions or programmes of their type succeed.

A more recent instrument for assessing the quality of TE provision is the SABER PRO test, designed and administered by the Colombian Institute for Educational Evaluation (*Instituto Colombiano para la Evaluación de la Educación*, ICFES) which is responsible for all national standardised tests

and exams. The innovative SABER PRO tests are taken by undergraduates who have successfully passed at least 75% of their academic credits for their programme. The results of these tests can be compared directly to the SABER 11 results, taken at the end of upper secondary education, enabling judgments to be made about the "value added" by individual institutions and the system as a whole, in a way attempted by few other countries. Box 5.2 describes this pioneering Colombian development more fully.

Table 5.2. **Institutions and programmes with VHQA, by type (December 2013)**

Type of TEI	Number of institutions	Number (%) of institutions with VHQA	Number of programmes	Number (%) of programmes with VHQA
Technical	36	0 (0)	373	3 (0.8)
Technological	50	4 (8)	801	22 (2.7)
University institution/ technological school	119	2 (2)	1 964	125 (6.4)
University	81	27 (33)	6 470	663 (10.2)
Total	**286**	**33 (11.5)**	**9 608**	**813 (8.5)**

Source: CESU (2014), *Acuerdo por lo Superior 2034: Propuesta de Política Pública para la Excelencia de la Educación Superior en Colombia en el Escenario de la Paz,* Consejo Nacional de Educación Superior (National Council of Higher Education), www.dialogoeducacionsuperior.edu.co/1750/articles-319917_recurso_1.pdf.

Box 5.2. **SABER PRO**

SABER PRO (formerly State of the Quality of Higher Education, *Estado de Calidad de la Educación Superior*) is a set of tertiary exit examinations. These exams assess the individual competencies of final-year undergraduate students, and have been compulsory for graduation from Colombian TEIs since 2010. This innovative programme was designed to produce tertiary indicators to give a true assessment of outcomes from TE, to inform the pedagogical process and institutional approaches to TE, and to monitor performance trends. It is at the forefront of current thinking on how to measure tertiary outcomes and provides valuable accountability information, as well as measures of value added by TEIs when combined with SABER 11 results.

SABER PRO exams now include five generic competency tests – writing, critical reading, quantitative reasoning, English and citizenship competencies – and tests in a number of "common competencies" relevant to the programme studied. The Colombian Institute for Educational Evaluation (*Instituto Colombiano para la Evaluación de la Educación*, ICFES) has established 30 reference groups bringing together academic programmes with similar characteristics and covering 22 academic areas. These 30 reference groups facilitate the process of obtaining comparable results across disciplines for the common competencies exams, and differentiate the analysis of results for three levels of institutions: technical, technological and university.

Box 5.2. **SABER PRO** (*Continued*)

By placing performance in the context of comparable reference groups, these exams provide more than just scores – they establish performance levels for all modules and for different disciplines.

SABER PRO results are communicated to students and to institutions. They are reported by module; there is no aggregate score for the whole battery of tests. When students receive their results, they receive their scores, their level of performance descriptor, the average scores in the corresponding reference group and the standard deviation of the scores of the corresponding reference group. Institutions receive individual student scores (for their students), distribution by levels of performance (quintiles) and their average scores in relation to the averages and standard deviations of scores of the reference group and the national data.

Source: ICFES (2015), "Information on the SABER PRO exams", Instituto Colombiano para la Evaluación de la Educación (Colombian Institute for the Evaluation of Education) website, www.icfes.gov.co/index.php/instituciones-educativas/saber-pro/informacion-de-la-prueba-saber-pro#.

Information systems also form an important part of the TE sector, providing the MEN, TEIs and key stakeholders with statistical data and analysis on the quality of institutions and programmes and other performance indicators. Colombian TE information systems include:

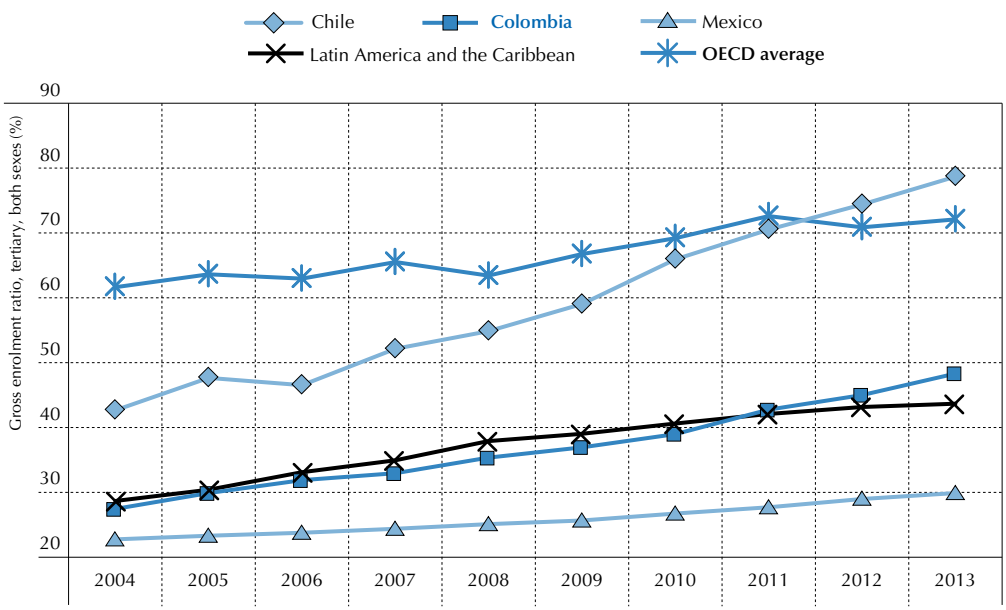
- The National System of Information about Tertiary Education (*Sistema Nacional de Información de la Educación Superior*, SNIES), a statistical service which collects, disseminates and organises information relevant to planning, monitoring, evaluation, assessment and inspection of Colombian higher education.
- The Labour Observatory for Education (*Observatorio Laboral para la Educación,* OLE), which collects statistical information about graduates, average salaries paid to recent labour market entrants, courses or programmes in the regions and the performance of graduates in the labour market.
- The System for the Prevention and Analysis of Dropout at Higher Education Institutions (*Sistema para la Prevención de la Deserción de la Educación Superior*, SPADIES). This monitors dropout rates from higher education and relates recruitment and retention to student characteristics.
- The Tertiary Education Quality Assurance System (*Sistema de Información para el Aseguramiento de la Calidad de la Educación Superior*, SACES), which provides statistics, indicators and reports on the registration and accreditation status of programmes and institutions.

Most recently, in 2015, the government introduced the Model Performance Indicators for Education (*Modelo de Indicadores del Desempeño de la Educación*, MIDE) to provide comparative information on core dimensions of institutional quality, including student performance in SABER PRO, graduation rates, research, institutional capacity and internationalisation. MIDE includes a ranking of the performance of 187 universities and university institutions (see Policy Issue 2).

Trends in access, equity and quality

In 2013, 2.1 million students were enrolled in Colombian TE, a gross enrolment rate of 48%, compared to just 28% in 2004. This is similar to the Latin America and Caribbean average (44%), but clearly below the levels reached by Chile (79%) and the OECD average (72%) (Figure 5.5) (UNESCO-UIS, 2015).

Figure 5.5. **Tertiary education gross enrolment rates, by country (2004-13)**



Source: UNESCO-UIS (2015), "Browse by theme: Education", *Data Centre,* UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx (assessed 10 July 2015).

In Colombia the distribution of enrolment between public and private sector institutions is fairly even: in 2013, 52% of students were enrolled in the public sector. However, the private institutions' share of the student population has been growing, slowly but consistently, from 45% in 2009 to 48% in 2013 (CESU, 2014). When compared to other Latin American countries, private-sector enrolment is in the mid-range, well below Chile (84%) and Brazil (71%) but higher than Uruguay (14%) or Argentina (26%) (UNESCO-UIS, 2015; most recent year available[7]).

Across programmes the greatest numbers of students are in bachelor's degree programmes, followed by technological students (Table 5.3). The Colombian government has sought to encourage more tertiary students into T&T programmes in the interests of the national economy, with some success. Although Table 5.3 shows enrolment in professional technical training fell by just under 4% over the period 2010-2013, the rates of change for each year were -50% in 2010, -11% in 2011, -4% in 2012 and +6% in 2013, indicating that a steep decline in interest in training at this level seems to have been reversed. Technological training grew in popularity every year from 2010 to 2013, although the growth was strongest in 2010, at 51%. It is possible that some programmes were upgraded or re-designated from professional technical to technological in that year.

Table 5.3. **Enrolment by level (2013*) and change in rates (2010-13*)**

Level	Enrolment	Share of total enrolment (%)	Annualised change in enrolment 2010-2013 (%)
Professional technical	83 483	4.0	-3.54
Technological	604 410	28.7	10.39
Bachelor's degree	1 295 528	61.4	7.41
Specialisation	82 515	3.9	10.99
Master's	39 488	1.9	18.37
PhD	3 800	0.2	17.78
TOTAL	**2 109 224**	**100.0**	**8.00**

Note: *Preliminary Data, MEN-SNIES.

Source: CESU (2014), *Acuerdo por lo Superior 2034: Propuesta de Política Pública para la Excelencia de la Educación Superior en Colombia en el Escenario de la Paz,* Consejo Nacional de Educación Superior (National Council of Higher Education), www.dialogoeducacionsuperior.edu.co/1750/articles-319917_recurso_1.pdf.

The very high dropout rate of the Colombian tertiary system makes it considerably inefficient. A study of the dropout rate by cohort concluded: "an average of one in two cases does not complete his/her TE studies. […]

The cumulative dropout rate reaches 33% by the end of the first semester and 71% by the tenth. At the university level the dropout rate climbs from 19% in the first semester to 47% by the tenth semester" (Melo, Ramos and Hernández, 2014). The highest dropout rates are found in the lowest level tertiary programmes, even though these are usually shorter: in 2013 the proportion of students who dropped out over the course of the programme was 45% for universities, 54% for technological institutions and 62% for professional technical institutions. Of those who do complete their courses, many – if not most – take longer than the course's nominal length. Only around one-third of university students complete their studies in 14 semesters, even though most undergraduate programmes have a nominal length of 5 years, or 10 semesters.

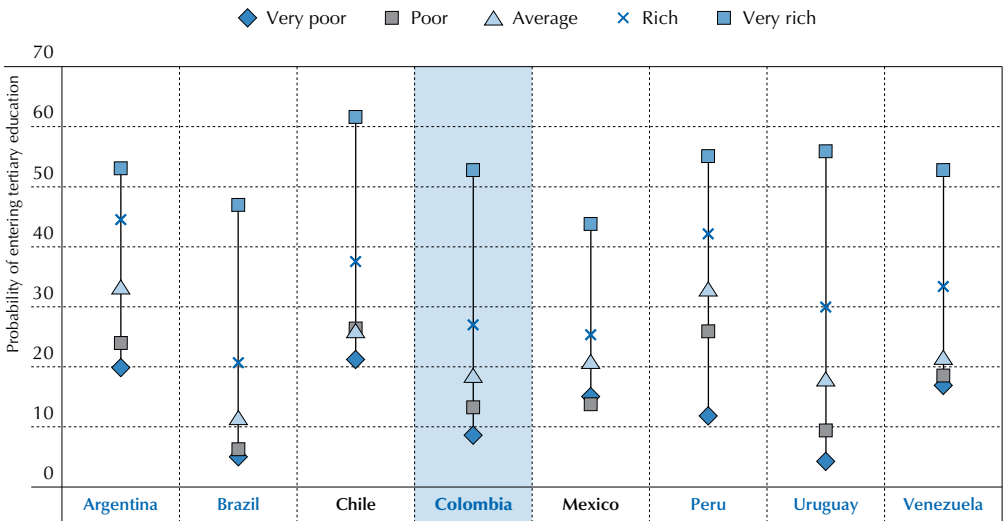
Recent policy efforts have helped to reduce dropout rates slightly (see Policy Issue 1). Between 2004 and 2013, the dropout rate by cohort fell from 48% to 45% and the dropout rate by year fell from 16% to 10% (MEN, 2014). Although the trend is downwards, dropout rates remain inefficiently high and completion rates inefficiently low. Dropping out is also an equity issue. The highest dropout rates are experienced by the very groups that the governments is trying hardest to bring into the tertiary system in greater numbers – T&T students, students from poorer or less well-educated families, and those from under-represented regions and schools.

Colombia also faces a number of other access and equity concerns. The first major issue is equity between different socio-economic groups. In 2011 while 53% of young people from Colombia's richest quintile were enrolled in TE, the figure was just 9% in the poorest quintile; only Brazil and Uruguay enrolled a lower proportion of their poorest youth out of the eight Latin American countries shown in Figure 5.6. Participation by students from the poorest families seems to be improving, though not at a rate that would redress this imbalance. From 2010 to 2013, the proportion of students with a family income of less than the Colombian minimum salary increased from 15% to 17%, and the proportion of students with a family income of less than twice the minimum salary rose from 56% to 59% (CESU, 2014). Participation by students from families earning seven or more times the minimum salary also rose between these years, while participation by students from families earning between two and seven minimum salaries fell. Data from the SPADIES information system confirms, however, that students from poorer families take longer on average to complete their courses and will be more likely to drop out before graduation.

The second major access and equity issue is the unequal opportunities of students from different departments (regions) of Colombia. The departments of Bogotá Federal District, Antioquia, Valle del Cauca, Santander and Atlántico between them account for more than two-thirds of all enrolment in

undergraduate programmes, although they are home to less than half of the Colombian population. In 2013, the gross tertiary enrolment rate by Colombian department varied from under 15% in Vaupés, Putumayo and Amazonas to close to 60% in Quindío and Santander (CESU, 2014). Just three departments, Bogotá, Antioquia and Valle del Cauca, are home to 67% of all institutions with high quality accreditation.

Figure 5.6. **Probability of entering tertiary education, by socio-economic quintile**



Notes: Reference year for Argentina, 2012; Brazil, Chile, Colombia, Peru, Uruguay, 2011; Mexico, 2010; and Venezuela, 2006. Non-OECD countries are shown in blue.

Source: CEDLAS/World Bank (2015) "Education", *Socio-Economic Database for Latin America and the Caribbean*, Centro de Estudios Distributivos, Laborales y Sociales, Universidad Nacional de La Plata, and World Bank, http://sedlac.econo.unlp.edu.ar/eng/statistics-detalle.php?idE=37.

Table 5.4 summarises the situation for each department with enrolment and dropout rates, numbers of quality programmes and poverty levels. It demonstrates just a few of the many differences between the regions in Colombia. School graduates in Bogotá Federal District have a choice of 280 accredited programmes and the vast majority of their peers will pursue tertiary studies. Similarly high-achieving school leavers born in Sucre would have the choice of just two quality programmes or have to find the resources to travel to another department. They would be in a minority in choosing to enrol in TE and face a greater than one in ten likelihood of dropping out.

Table 5.4. **Enrolment, dropout rates, share of accredited programmes and poverty levels, by department (2013)**

Department	Gross enrolment rate (%)	Accredited programmes (2014)	Annual dropout rate (%)	Poverty level (%)
Amazonas	9.1	1	n/a	n/a
Antioquia	49.5	191	10.8	24.2
Arauca	13.6	n/a	n/a	n/a
Atlántico	49.3	32	10.7	32.4
Bogotá D.C.	92.5	280	10.9	10.2
Bolivar	35.7	33	13.5	41.8
Boyacá	48.9	20	8.1	39.3
Caldas	45.2	32	7.3	32.2
Caquetá	20.9	n/a	12.6	42.4
Casanare	25.7	n/a	16.8	n/a
Cauca	28.4	8	8.7	58.4
Cesar	28.3	1	12.9	44.8
Chocó	23.8	n/a	8.3	63.1
Córdoba	22.5	7	10.3	51.8
Cundinamarca	26.5	13	7.0	18.9
Guainía	10.1	n/a	n/a	n/a
Guaviare	16.4	n/a	n/a	n/a
Huila	17.0	9	8.2	47.3
La Guajira	31.0	n/a	12.0	55.8
Magdalena	30.2	7	11.8	50.5
Meta	34.1	2	9.7	27.1
Nariño	23	11	10.3	47.6
Norte de Santander	46.2	5	10.5	39.4
Putumayo	10.5	n/a	n/a	n/a
Quindío	61.2	8	12.6	35.6
Risaralda	51.3	25	13.3	28.8
San Andrés	17.8	n/a	n/a	n/a
Santander	59.7	35	9.8	19.5
Sucre	21.8	2	13.2	47.3
Tolima	36.0	14	9.8	34.8
Valle del Cauca	37.0	75	13.5	27.2

Table 5.4. **Enrolment, dropout rates, share of accredited programmes and poverty levels, by department (2013)** (*Continued*)

Department	Gross enrolment rate (%)	Accredited programmes (2014)	Annual dropout rate (%)	Poverty level (%)
Vaupés	7.4	n/a	n/a	n/a
Vichada	10.0	n/a	n/a	n/a
National	**45.5**	**813**	**10.4**	**30.6**

Note: n/a refers to data not being available in the given source. All indicators are from 2013 unless otherwise indicated.

Sources: DANE (2015), "Pobreza y desigualdad", *Pobreza y Condiciones de Vida*, Departamento Administrativo Nacional de Estadistica (National Department of Statistics), www.dane.gov.co/index.php/estadisticas-sociales/pobreza; MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá; CESU (2014), *Acuerdo por lo Superior 2034: Propuesta de Política Pública para la Excelencia de la Educación Superior en Colombia en el Escenario de la Paz,* Consejo Nacional de Educación Superior (National Council of Higher Education), www.dialogoeducacionsuperior.edu.co/1750/articles-319917_recurso_1.pdf.

It is difficult to measure the quality of a country's tertiary education. National tertiary systems vary so much that there is no agreed international method of assessing their quality. Comparisons between countries are most defensible at the top of each national system, where the best universities operate internationally and are willing to be judged by international standards against their peers. Colombia had just five universities in the QS Latin American Top 50 ranking in 2015, although these included Los Andes at 7th and the National University at 13th (Quacquarelli Symonds, 2015). In comparison, Brazil had 17 including 5 of the top 10; Chile had 8 including the 3rd and 4th; Mexico had 7 including the 6th and 9th; and Argentina had 8, but the highest placed was 15th.

Cross-country reviews have identified a number of characteristics commonly associated with high-quality TE (OECD, 2008). These include, but are not confined to, the entry standards of tertiary students, the number of students progressing from undergraduate to higher levels of study and the qualifications of academic staff. Data for these indicators suggest considerable quality concerns for Colombia. For example, many students entering the tertiary system are ill-prepared to learn. In 2013, only 32% of students in public schools and 68% of students in private schools performed above average ("high", "superior" and "very superior" levels) in SABER 11 (see Chapter 4). In addition, 32% of students in public schools and 16% of private school students performed below standard ("low" and "inferior" levels). This points to the some of the challenges that TEIs in Colombia face in striving to reach international standards, helping students meet their

aspirations for further study and employment, and meeting the skills needs of the national and local economy.

Analysis of the 2014 SABER PRO results shows a high share of low performance among students in all areas of the assessment. In quantitative reasoning, 70% scored level 1 out of 3. English proficiency and writing skills could also be improved, as only 25% of students achieved an intermediate level (B level) or higher on the English proficiency test and only 45% of students demonstrated acceptable levels of writing (above level 5 of 8) on the writing section. As would be expected, university programmes account for more top performers than other institutions, with 14% of university students scoring at the highest level for quantitative reasoning and critical reading, compared with only 6% of non-university students (ICFES, 2014).

Compared with their peers in OECD countries, very few students in Colombia progress from undergraduate to higher levels of study, though the numbers have been increasing. The number of students who had attained a master's degree rose from 5 935 in 2010 to 10 453 in 2013, and the number of those awarded a doctoral (PhD) degree rose from 211 to 329 over the same time period (MEN, 2015a). The steady increase in students progressing to postgraduate levels has helped to raise the number of TE teaching staff and their qualification levels. From 2002 to 2013, the number of academic staff in TE increased by 40%, though the number of students increased by 113% (UNESCO-UIS, 2015). While there were more tertiary teachers with PhD degrees in 2013 than in 2010 (Table 5.5), they represent a small proportion of overall staff, well below the levels in most OECD countries and many Latin American countries. In Chile, for example, in 2012 about 40% of academic staff in universities have a master's or PhD degree (MEN, 2015a).

Table 5.5. **Academic staff by level of education (2010 and 2013)**

	2010		2013	
Level of education	Amount	Percentage	Amount	Percentage
Undergraduate	34 026	32.4%	43 801	37.5%
Specialisation	37 496	35.7%	39 556	33.9%
Master's	27 048	25.7%	26668	22.8%
PhD	6 595	6.3%	6 794	5.8%
Total	**105 165**	**--**	**116 819**	**--**

Note: Based on MEN-SNIES preliminary data for 2013 up to 10 May, 2013.

Source: CESU (2014), *Acuerdo por lo Superior 2034: Propuesta de Política Pública para la Excelencia de la Educación Superior en Colombia en el Escenario de la Paz,* Consejo Nacional de Educación Superior (National Council of Higher Education), www.dialogoeducacionsuperior.edu.co/1750/articles-319917_recurso_1.pdf.

Key policy issues

The Colombian government is introducing legislation to establish a National System of Tertiary Education (*Sistema Nacional de Educación Terciaria*, SNET). The overarching objective, as with reform efforts at all levels, is to close the gaps in access to and quality of education between individuals, population groups and regions, and to bring the country to high international standards. This section examines policies that would enable Colombia to attract and accommodate a larger and increasingly diverse student body while improving and assuring quality. It looks at how Colombia can manage this transformation fairly across the country, and how it can ensure that it meets both student aspirations and the needs of its growing economy. Finally, it examines changes to the governance and financing of TE that would help Colombia steer these reforms successfully.

Policy issue 1: Expanding access and improving equity

Young people from disadvantaged families in Colombia face a greater range and combination of potential difficulties in accessing TE than most students. Compared to the average school leaver, they are likely to have been less well prepared for tertiary education by their upper secondary schooling and achieved lower SABER 11 scores. Other members of their families are far less likely to have had tertiary education themselves, so will give them less useful help in choosing a suitable institution and programme and navigating the entry requirements, meaning they will be less likely to get into their chosen institution. If they live in a relatively poor department or rural area, there may be a very limited range of tertiary opportunities within reach of their home. Without an ICETEX loan, they are unlikely to be able to undertake any TE, but ICETEX is currently unable to fund around 40% of requests. Should they overcome all those barriers and enter TE with a loan, they will find it more difficult to survive financially. Statistically, they are at greater risk of dropping out than the average student, and if they do graduate, they are likely to have taken longer to do so, leaving them with a bigger debt than average. Colombia has introduced a range of policies to help low-income students overcome these barriers. This section looks at the approaches taken and ways that their impact might be enhanced in four important areas of policy reform: managing the transition from upper secondary education, reducing dropout rates, enhancing financial support and reducing regional inequities.

Enabling students to make an informed decision

Students need to choose the TE institution and programme that will best meet their needs and abilities and provide the best employment opportunities. This is especially important for students from low-income backgrounds, who

often cannot rely on parental guidance and face higher opportunity costs and financial risks in choosing the path of further study. Schools can play a role in helping students navigate this difficult decision through better guidance and mentoring services (see Chapter 4). Yet, to do this, schools and students require access to reliable information on the courses available in TEIs, the application procedures and the rates of return from better employment opportunities different programmes are likely to offer.

Not all programmes offer the same labour-market returns to their graduates. The Labour Observatory for Education, (*Observatorio Laboral para la Educación*, OLE), provides extensive and potentially extremely useful information on the labour-market value of different tertiary programmes. Table 5.6 shows the relative value of different degrees according to the OLE database. This aggregated data suggests not only that TE brings benefits to graduates when compared to secondary school leavers regardless of degree level or institution attended, but also that the benefits go on rising as training levels rise (though at each level the advantage reduced slightly between 2012 and 2013).

Table 5.6. **Relative value of different certificates or degrees (2012 and 2013)**

Value of high school certificate = 100

Graduation Level	2012	2013
High school certificate	100	100
Labour technical certificate	141	135
Tertiary Education		
Professional technical qualification	159	152
Technologist qualification	170	163
Bachelor's degree	254	250
Specialisation	432	430
Master's degree	580	547
Doctorate	868	840

Source: OLE (n.d.), "Estadística de interés", Observatorio Laboral Para la Educación website, www.graduadoscolombia.edu.co, various dates.

During the review visit, stakeholders also echoed the perception that the rates of return from bachelor's degrees are higher than from T&T qualifications, and claimed that this was reflected in student choices, with universities in Colombia receiving many more applications per place for bachelor's degrees than T&T institutions receive for technology degrees. However, a recent study of TE in Chile and Colombia, found that the

economic returns of tertiary education depend crucially on the programme provider, the quality of the programme and how well it meets employer requirements, and could be negative (IDB, 2015). The authors concluded that, on average, 70% of Colombia's university students and only 41% of its T&T students could expect positive net returns from graduation. For some degrees (accounting, for example), choosing a technical pathway could well be the better option, and in many disciplines better returns are available from some T&T institutions than from some universities.

The OLE figures are thus potentially valuable to students but the system is very difficult to navigate and information is not consolidated in a way that is helpful for students. For example, OLE data can be broken down by type of tertiary degree, programme and institution, allowing the labour-market outcomes of different programmes at different institutions to be compared. However, students must analyse the data and do the comparisons for themselves, increasing the likelihood of misinterpretation. As labour-market outcomes are so important to students' choices of institution and programme, it would be very helpful to present this data disaggregated by provider and course. Either OLE could calculate and publish the rate as part of the suite of information available, or it could provide the algorithm on its website so that enquirers could feed in key data and work out the rate of return for themselves. Publicising rates of return would encourage TEIs to work with employers to ensure that graduates find well-paid jobs. It would also support the government's objective of attracting more students to those programmes which are most important to the country's economy. An additional improvement would be to include data on SENA graduates in the OLE system. At present it does not publish the labour-market outcomes of most of SENA's T&T programmes.

A further challenge is the difficulty of navigating the admission procedures of Colombian TEIs (OECD/IBRD/World Bank, 2013). Students have to make a separate application to every institution they wish to attend and given the autonomy of tertiary institutions, each institution decides its own admission criteria on top of the basic requirement of a SABER 11 pass. There is no central source listing the entry arrangements and criteria of each institution and no common date by which applications must be submitted or students told whether they have been accepted. Some countries have central agencies which process all applications to TEIs and eliminate duplicate acceptances, to benefit other students. Examples include the Universities and Colleges Admissions Service in the UK and the clearing-house system administered by CRUCH, the Council of Rectors of Chilean Universities, for those who take the university entry test in Chile. Such agencies make the process of applying for a place much easier and reduce administration costs for the higher education institutions. They also dispel any suspicions that places are being allocated on grounds other than merit, such as hidden

payments, nepotism or discrimination for/against students in particular groups. A central clearing house to process and collect and collate data on tertiary admissions in Colombia would demonstrate the government's commitment to ensuring transparency and impartiality in decisions on who gets a place and who does not – decisions vital to the life chances of young people and to fulfilling the government's access agenda.

Reducing dropout rates and improving retention and completion

To address Colombia's high dropout and non-completion rates effectively, it is necessary to understand the underlying reasons for them. Colombia's student dropout monitoring system, the System for the Prevention and Analysis of Dropout at Higher Education Institutions (*Sistema para la Prevención de la Deserción de la Educación Superior*, SPADIES), offers rich data on the factors and student characteristics associated with different dropout rates. SPADIES data shows that dropout rates are highest in the first semester and taper off thereafter. Dropout rates tend to fall as SABER 11 scores, household incomes and wealth, and mother's education level rise. Rates are lower for females and vary by Colombian department (Table 5.6). Dropout rates are higher for those who were in work when they took their SABER 11 test and who attend lower levels of tertiary education – T&T institutions have higher dropout rates than other tertiary institutions despite their shorter programmes. Dropout rates also vary by discipline, with health sciences having the lowest dropout rate and agronomy and veterinary training the highest (MEN, 2014).

As with other data systems in Colombia, SPADIES could be further exploited and integrated with other information systems to provide more useful guidance to policy makers. For example, local authorities and TEIs could make better use of it to pinpoint areas of weakness, design improvement strategies and improve the effectiveness of resource allocation. It is also important to know what reasons students themselves give for dropping out but SPADIES does not record this information. TEIs keep records for internal purposes, commonly classifying the reasons as academic, economic/financial or personal but they are not required to share this information with the government and there is no system for comparing the data across providers.

The most fundamental problem the Colombian tertiary system faces is the lack of college-readiness among many school leavers, an issue also reported in the 2012 OECD-World Bank report (OECD/IBRD/The World Bank, 2013). SPADIES data and students themselves suggest that inadequate preparation in school is one of the most important factors influencing high dropout rates in Colombia. It is closely related to other financial and personal pressures that push students out of the system, as they struggle to adapt to a

different learning environment, fail to reach required standards and have to support themselves for longer as they fall further behind. Unless they started primary school late or had to repeat school years, young Colombians leave school and enter the tertiary system at 17 years old, which is young compared with most OECD countries and other Latin American countries such as Argentina, Brazil and Chile where the school-leaving age is 18. Results from SABER 11 indicate that the majority will not have acquired the skills required for further learning, such as autonomous study, complex reasoning and problem solving (see Chapters 3 and 4). Bachelor's degrees (known as *licenciatura* in Latin America) are expected to last five years in Colombia and T&T programmes three years, comparable in length to programmes in most other Latin American countries. However, their upper secondary school leavers are generally older and/or have more years of schooling behind them.

The 2012 OECD-World Bank review report outlined various options for addressing this lack of college-readiness, including a suggested additional 12th year of schooling (OECD/IBRD/The World Bank, 2013). With the pressing need to ensure full enrolment in the transition year, and current commitments to achieve full-day schooling and progress towards universal upper secondary enrolment, the introduction of an additional year does not seem feasible. This underscores the importance of TEIs developing strategies and adjusting traditional teaching approaches to receive and support a wider range of students, many with weak skills.

Helpful approaches implemented by some TEIs that the team has noted include: 1) constant monitoring of student progress against expected progress, to identify early on the students who are at risk of leaving the system and give them extra support to catch up without having to repeat years or semesters; 2) teaching methods which are more student-centred, less directive and more participative; 3) training teachers to diagnose students' weak areas and provide tailored help; 4) making remedial maths and language classes available, possibly online, for students to work on as convenient; 5) adding extra weeks at the beginning of semesters for special tuition to help strugglers improve their general competences; 6) setting up a dedicated counselling, mentoring and advice centre for students experiencing problems – particularly important for students in their first semester, when the dropout risk is biggest; and 7) exchanging experiences between institutions, to share knowledge and best practice on averting students dropping out and achieving timely graduation for all.

SPADIES records a gradual but significant rise in the number of students being provided with academic or other non-financial support by their institutions. "Academic support" was given to 2% of students in the second semester of 2004, rising to 7% of students in the second semester of 2014. "Other forms of support" rose from 2% of students in the second semester of

2004 to 5% of students in the first semester of 2014. These numbers remain very small, however. TEIs will need to do much more to support students with weak basic skills if the latter are to have a fair chance of completing their studies successfully. One option could be bridging courses offered to all students, either at the institution where they have been accepted or another TEI with which their institution has arrangements in place, to bring them to a level where they can participate fully in a tertiary programme.

Evidence suggests that academic support is likely to be most effective at reducing dropout rates when combined with financial assistance (OECD, 2012; OECD/IBRD/The World Bank, 2013). An important aim of the ICETEX loan system is to reduce dropout rates by removing or minimising the economic/financial reasons for it. The average dropout rate of students with loans is lower in every semester than for students without them, except for students on ICETEX Quality Access to Tertiary Education (ACCES) credits, a special type of loan designed to increase coverage for the most disadvantaged of the students with high SABER 11 scores. Among these students, survival rates in the first semester are lower than for students with no loan at all, though for all later semesters they are better. The longer students have enjoyed financial support, the less likely they are to drop out. This confirms that ICETEX loans, if available, are a very effective way of reducing or minimising dropout rates. However, as discussed below, there are several other ways in which the financial support system in Colombia could be improved to better support disadvantaged students in their access to and timely completion of TE.

Strengthening financial support for low-income students

A major problem that by definition affects low-income students far more than other students is the financial cost of pursuing tertiary studies. ICETEX loans are helping many students from poorer families access tertiary opportunities they could never have had otherwise. The percentage of students with financial support has risen over the years, from less than 5% in the first semester of 2002 to 20% in the second semester of 2014 (MEN, 2015a).

However, despite regular increases in its budget and the priority given to supporting the poorest students, ICETEX state funding cannot support all deserving Colombian students of limited means. Fewer than one in five tertiary students benefit from student loans or scholarships from ICETEX. In 2014, 12% of ICETEX support went to students attending T&T institutions (who tend to be more disadvantaged), 81% to university undergraduates and 7% to postgraduate students. Many eligible students and their families still consider ICETEX funding to be a high-risk loan (CESU, 2014). It is worrying that 30% of credits provided by ACCES are non-performing loans. This illustrates the difficulties faced by low-income students in meeting loan repayments.

The SPADIES information cited above suggests that more investment in repayable loans would bring valuable improvements in access. Since 2011 the Colombian government has tried to help more low-income students to access tertiary programmes by adjusting ICETEX loan conditions, reducing the real interest rate to zero for students from socio-economic levels 1, 2 and 3, and providing more money for the loans portfolio (MEN, 2015a). In appropriate cases individuals have been granted living allowance subsidies as well as loans for fees (140 646 students) or have had their debts cancelled in whole or in part (550 students) (MEN, 2015a). Further reforms are envisaged in 2015, such as zero interest on loans while a student is enrolled, a one-year grace period once a student graduates, and 100% forgiveness of the loan upon graduation for the most disadvantaged students. These are promising developments.

The team suggest a three-pronged approach to increasing the numbers of loan beneficiaries. First, recent gradual increases in ICETEX's allocation from the MEN budget should continue. Second, efforts to identify and obtain student loan funding from other sources – such as the CREE and the stamp duty/withholding tax – should be stepped up. Third, when the occasion arises to reform the system for funding allocations to TEIs (see Policy Issue 3), the opportunity should be taken to encourage and reward institutions which organise their own financial support arrangements for deserving and needy students without ICETEX loans.

The Colombian government's new flagship policy to help students from low-income backgrounds to access high-quality TE is the new Hard Work Pays Off (*Ser Pilo Paga*) scholarship programme. It will grant scholarships to 10 000 students a year for 4 years from 2014. These students receive loans and grants which cover their full tuition and living costs. To qualify, students must have achieved marks above a defined level in their SABER 11 tests (lower if they are from rural areas), and their households must be below SISBEN level 2. Qualifying students are assured of a place at any TEI they choose to study at, as long as it has a high-quality accreditation (VHQA). According to MEN data, by July 2015, 9 470 students were studying in the top TEIs in the country thanks to this programme, the majority in Bogotá (37% of the students who attained a scholarship) and Antioquia (19%).

The *Ser Pilo Paga* programme has many good features. It is enabling large numbers of students who would not previously have had a chance to access and attend the country's best-quality TEIs. It is bringing valuable new public money into the tertiary system, and it has an interesting way of making sure that participating universities do everything they can to ensure that scholarship students complete their programmes: if the student drops out the university cannot reclaim the cost of their tuition from the government. However, it is costing more per student than the government expected; in the

first year 85% of scholarship students chose to study at private universities whose tuition fees are much higher than the public universities, requiring an emergency injection of extra funding from the government. Therefore, the programme can help far fewer poor students for a given amount of public money than standard ICETEX loans, and the students that do drop out are left with particularly large debts. In addition, although SABER 11 results and SISBEN levels offer the best readily available benchmarks of ability and poverty respectively, these are imperfect measures which cannot guarantee that every successful applicant is more able, harder working and from a poorer family than every unsuccessful applicant. Before deciding whether to expand *Ser Pilo Paga* further or extend it beyond 2018, the government should commission an independent evaluation which can consider all these issues.

Improving equity between regions

The CESU report, *Commitment for Excellence 2034* (Box 5.4) recognises that one of the most important challenges facing Colombia's TE system will be achieving greater regional balance in participation (CESU, 2014). There are stark differences between and within Colombian regions in TE enrolment, the distribution of high-quality accredited institutions and public expenditure (Table 5.4). The team can confirm these inequities in access and quality from our institutional field visits. A comprehensive and multidimensional approach is required to address regional imbalances. The aim should not just be to add extra places, but also to ensure that those extra places are of good quality, offer local students adequate choice, are relevant to local needs and contribute effectively to local and regional economic development.

The National Development Plan of 2010-2014 set the objective of ensuring that three-quarters of Colombian municipalities would have at least some tertiary provision by 2014. This aim was met: by 2013, 555 more of Colombia's 1 122 municipalities acquired some tertiary provision, taking the total to 841 municipalities (75%). The PND 2014-2018 now focuses on improving the quality of provision, with the aim of increasing participation in tertiary programmes with high-quality accreditation from 14% in 2013 to 20% by 2018, and to increase the number of departments with a tertiary enrolment rate of 20% from 25 in 2014 to 33 by 2018. Recently, Colombia has also introduced a competitive funding scheme through the CREE to encourage TEIs to apply for additional funding to develop and improve the quality of programmes in less developed regions of Colombia.

A major part of the government's strategy for expanding tertiary access in regions with few places has been the establishment of a network of Regional Centres of Higher Education (*Centros Regionales de Educación*

Superior, CERES). CERES rely on regional resource-sharing partnerships between TEIs, government (local and national) and employers, to deliver regionally relevant tertiary level programmes that correspond with local labour needs. In 2013, CERES enrolled nearly 36 168 students in 155 centres. Although this is an achievement in terms of numbers, concerns have been raised over their quality (OECD/IBRD/The World Bank, 2013). In 2014, the MEN carried out an evaluation of CERES centres' institutional capacity, coverage, quality and relevance. The evaluation found that 73% of the centres cater to students in municipalities where no other provision for tertiary education exists, but the average CERES graduate scored 1-4% lower on the SABER PRO test than their peers (DNP, 2014). The evaluation recommends strengthening guidelines on the creation and management of the centres, integrating CERES data into existing information systems, and increasing access to internships and financial aid for CERES students. However, under current policies, the MEN does not intend to further expand and develop CERES.

One way of increasing coverage in under-represented regions is distance learning. While there is no internationally comparable data on the use of Internet-based or other distance-learning programmes, results from an OECD survey on e-learning in Latin America found that TEIs are increasingly looking at ways to expand virtual learning programmes, with 74% of Latin American universities surveyed already having an e-learning strategy in place and 21% in the process of developing one (OECD, 2015c). A number of established TEIs in Colombia have begun to offer virtual or traditional distance education, in an attempt to overcome the inequality and dispersion of the regional population. However, compared to other Latin American and OECD countries, efforts by Colombian institutions to exploit the potential of distance education remain limited (Altbach and Salmi, 2011). Although enrolment in Internet-based courses has increased – rising by 76% between 2011 and 2013, compared to an increase of 12% in classroom-based programmes over the same period – participation rates remain extremely low. In 2013, only 1.3% of students took part in Internet-based programmes, with 12% enrolled in traditional distance-learning courses (MEN, 2015a). Expansion of these programmes, particularly distance learning online, could make an important contribution to remedying regional imbalances in the future.

The benefits of distance learning are that it is infinitely expandable and, once the programmes and programme material have been developed, relatively cheap to provide. Blended learning, where students learn remotely but also benefit from in-person instruction, can be particularly effective in situations, like Colombia, where students may lack autonomous study skills. Other countries with large underdeveloped rural areas, such as India, Thailand and Turkey, have used distance or blended learning to expand

access for disadvantaged populations and groups. It is vital to ensure that the distance-learning programmes offered to young people who cannot physically attend TEIs are as high in quality and as relevant as the equivalent classroom-based courses, and that distance-learning arrangements include enough teaching and pastoral support. This requires adjustments to the future quality assurance system, considered below. Colombia might also consider setting up a special TEI or network of TEIs dedicated to developing online learning and providing online programmes.

If efforts to improve TE coverage are to help reduce socio-economic disparities between regions, it will be crucial that programmes meet the demands of local economies. The lack of employer engagement in the governance and delivery of TE means that the tertiary education and training on offer is often disconnected from local development and employment needs. Addressing this disconnect will require a more proactive approach by departmental and municipal governments to link TEIs with the local economy and steer the design of tertiary programmes to support local development priorities. Antioquia offers an example of how good co-operation between TEIs, business and government can forge a tertiary system that supports the local economy, job market and research and development (Box 5.3). The regional consultations organised by CESU to develop the *Commitment for Excellence 2034* report offer additional ideas for strengthening local skills ecosystems. One of the most important aspects of the CESU consultations were the Regional Round Tables, which enabled TEIs and other stakeholders, including local business, to discuss common concerns and highlight specific local challenges in national policy dialogue. Colombia might consider institutionalising such platforms. One way might be to create regional co-ordinating councils, bringing together representatives of TEIs, departmental authorities and the private sector. These could build trust and understanding between the business and academic communities, promote the co-ordination of education services across different locations and between tertiary levels, and ensure that tertiary provisions and programmes take full account of local labour market needs, and thereby improve education quality and the employment opportunities of graduates.

The funding of TE in less-developed regions is a key issue. The government confirms that "there exist dramatic imbalances between the support and resources that large universities can rely on and those TEIs in the peripheral regions" (CESU, 2014). Our team visits corroborated this. Peripheral institutions lack the resources to finance the academic standards demanded for VHQA, and thereby to attract the students and the scholarships that would help fund further quality improvements. The low qualification levels of academics is a major concern across the TE system in Colombia, but a particular challenge for regional public universities: most cannot offer

the higher degree programmes that would enable them to upgrade their staff, and lack the resources and reputation to attract more and better-qualified academics (OECD/IBRD/The World Bank, 2013). Reducing these resource gaps will require reform of the system for national resource allocation, as well as measures to increase local investment in education, which accounts for less than 3% of overall tertiary funding (see Policy Issue 3). Stakeholders interviewed by the review team also highlighted the scope for greater institutional co-operation, and in some places mergers, to achieve economies of scale. Local secretaries of education could certainly play a much more active role in helping institutions within their jurisdiction share physical and human resources.

Box 5.3. **Antioquia: Tertiary education in regional development**

Antioqua illustrates the positive contribution tertiary education (TE) can make to regional and local development. An OECD review in 2012 identified a number of measures that could inform approaches in other regions:

- Antioquia's TEIs are beginning to link more systematically with stakeholders, both in the public and private sector, to match skills supply and demand. Institutional collaboration mechanisms have been set up, such as the University-Firm-State Committee (*Comité Universidad - Empresa - Estado*, CUEE), which have generated a baseline of trust for stronger public-private co-operation.
- Antioquia has also introduced a range of measures to improve the quality and relevance of TE to the labour market. These include the provision of high-quality work-based learning opportunities for students, the inclusion of labour-market representation in TEIs' governance and curriculum and course design, using local private-sector employees as instructors, and supporting the temporary secondment of university and research staff into the private sector.
- Programmes have been revised to focus on the development of core competencies required by the labour market, including transversal skills (how to analyse problems, how to organise time, and how to work in teams and groups). Students' assessments now incorporate feedback from employers who hosted their work placements.
- Antioquia is one of the leading regions in Colombia in making science, technology and innovation (STI) a pillar of its educational and economic development. Antioquia has pioneered new agencies and organisational arrangements to promote STI and created a dedicated fund, derived from income generated from royalties. At the metropolitan level, Medellín is leading cluster-based initiatives to transform itself into a centre of high technology, creative industries and tourism.

Source: OECD (2012), *Higher Education in Regional and City Development: Antioquia, Colombia 2012*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264179028-en.

Narrowing regional disparities will also require additional measures to support student access to TE. School leavers in the poorer regions of Colombia, where jobs are fewer and salaries lower, will have a particular need for affordable loans with relatively generous repayment terms, or even debt forgiveness in some cases. Some institutions, like the branches of the National University in border areas or the private Universidad Uniminuto, use their own resources to support students in isolated geographic zones. The government might also consider offering school leavers in regions with low tertiary enrolment (particularly indigenous students) extra help to become college ready and achieve good SABER 11 scores, perhaps through online teaching and learning.

Policy issue 2: Ensuring quality and relevance

How to continue to expand enrolment while also improving quality and relevance is one of the greatest challenges in the current phase of Colombia's TE system development, as is the case for many emerging economies faced with surging demand for higher levels of education and skills. Presently, quality varies widely within the system: very high quality tends to be concentrated in a few regions, institutions and a small fraction of the total number of T&T programmes. This section looks at the policies and practices that could help Colombia advance further along the road to quality TE for all students.

Strengthening the quality assurance system

Colombia has a mixed tertiary education system, with public and private institutions that enjoy considerable autonomy. Under these conditions it is essential to have a robust quality assurance system that guarantees a minimum quality of provision for all students and encourages all institutions to aspire to excellence in the areas of their mandate.

Experience from OECD countries suggests that a national system of quality assurance and quality enhancement should aim to:

1. Promote equity, relevance and efficiency.
2. Guarantee minimum standards in order to protect the interests of every student.
3. Foster a culture of quality and professionalism which leads to continuous improvement in both the wider TE system and in the quality assurance process itself.
4. Support the active involvement of stakeholders, especially students and employers, in order to promote responsiveness and relevance of higher education.

5. Allow for the diversity of institutions, programmes and modes of provision of TE, in order to foster its flexibility and fitness for purpose.
6. Embed transparency and openness to inspire trust and confidence.
7. Be open to the experiences of other countries in order to learn from them and to promote international engagement and mobility (Brunner, 2013).

The review team observed several areas where Colombia could further strengthen its quality assurance system to bring it into line with such international standards and best practice.

As discussed above, Colombia's quality assurance system for TE relies on two instruments: the Register of Qualified Programmes ensures programmes and TEIs meet minimum standards and the VHQA offers a "badge of excellence" for institutions and programmes that choose to apply for it. Both the *Commitment for Excellence 2034* (CESU, 2014) and the OECD-World Bank report (OECD/IBRD/The World Bank, 2013) recommended strengthening Colombia's tertiary quality assurance system by unifying these two functions. International experience suggests that in countries where TEIs have as much autonomy as they do in Colombia, a single national agency, whose independence is guaranteed by law, should handle all important aspects of quality assurance in TE.

There is recognition that the current minimum standards required for a course to be admitted to the Register of Qualified Programmes need to be reviewed. The OECD-World Bank report of 2012 found the minimum standards for admittance to the Register of Qualified Programmes were quite low, and could be met even by institutions with no credible internal quality assurance system. The review team also heard various opinions about the ease with which registration was achieved. It was suggested that the checks applied to new programmes are too weak to guarantee the level of quality expected by the academic community, professionals, and professional service clients. As the PND has advocated, "the country should proceed toward a redesign of the criteria used to grant qualified registrations and require programmes to function with higher quality standards" (DNP, 2015). The 2012 OECD-World Bank report recommended "Specifically, (i) external evaluators should scrutinise more thoroughly the readiness of institutions to provide the programmes for which they apply; (ii) all institutions should be required to present evidence of sound, impartial outcome evaluations and careful monitoring of student progress for existing programmes, and to demonstrate that their infrastructure is adequate" (OECD/IBRD/The World Bank, 2013).

While the VHQA was shown to work better, with clear and well-enforced standards, its disadvantage was that relatively few institutions and programmes achieved the standards (Table 5.2). The lists of VHQA achievers are dominated by universities and "elite" programmes with very few T&T institutions, or their programmes, achieving the status. The review team heard various opinions as to why: that the criteria applied suit universities better than other types of institutions; that CNA assessors are mainly drawn from the university rather than T&T sector; and that the criteria give insufficient credit for T&T institutions' strong points. Whatever the reasons, the unsatisfactory result is that many TEIs feel that they and their programmes have little chance of gaining VHQA, are not interested in applying, and so have no incentives to raise their sights higher than the minimum standards of the Register of Qualified Programmes.

The recent IDB study of rates of return from different TE programmes in Chile and Colombia pointed out that "institutional accreditation does not seem to give a clear signal of the net return to higher education degrees" (IDB, 2015). It offered instances where students would be better off after graduation if they chose to study at non-accredited rather than accredited institutions. It also commented that in both countries, "with respect to quality assurance, the minimum requirements for operation of a [TEIs] are lax, and the labour market performance of graduates is not a core input in the accreditation process" (IDB, 2015). Other aspects of tertiary performance which may be given insufficient weight in the VHQA process include dropout rates, time taken to complete programmes compared to their nominal length and the views of students.

The current two-part quality assurance regime also leaves a broad and undefined gap between the minimum level confirmed at the time of granting the qualified registration and the distinct accreditation for excellence. If a quality assurance system is to provide clear and comprehensible information to students, the public and employers then the criteria need to be sharper and more transparent. Every institution and ideally every programme in the system needs to have its quality and relevance (an important aspect of quality) assessed according to clear criteria, initially and at regular intervals thereafter, in a way that allows all stakeholders to draw meaningful conclusions from the published results of the assessment. These quality criteria need to recognise the different mandates of Colombia's diverse TE providers, and establish standards that encourage excellence in all fields. For instance, the current assessments do not adequately recognise the important components for quality in T&T programmes.

The process of institutional accreditation is not currently obligatory. Making it so would require some adjustment to the current VHQA criteria. The new criteria would need to apply equally to all types and levels of tertiary organisation, and include assessment of the elements identified as

missing from the current assessment. Aspects such as equity, relevance, labour market performance of graduates, rates of return, efficiency (meaning low dropout rates, reasonable times to completion, high graduation rates and reasonable cost per student compared to other similar provision) and involvement of stakeholders can really only be assessed at the programme level; therefore it would make sense for all of an institution's programmes to be considered as part of an obligatory institutional accreditation.

Last but not least, accreditation assessments do not give due weight to programmes' relevance. Involving employers and businesses in developing new consolidated quality assurance processes and standards, as well as in the actual assessments would strengthen the criteria. This will be particularly important for improving the value of accreditation processes for T&T programmes (see below).

Enhancing institutional performance

The government has introduced a range of policies to improve the quality and competitiveness of Colombian universities. They include efforts to improve the proportion of staff with higher qualifications, increase the offer of postgraduate programmes, and boost spending on research and development. The most recent government initiative to enhance institutional performance is a new information and ranking system introduced July 2015, known as Model Performance Indicators for Education (*Modelo de Indicadores del Desempeño de la Educación,* MIDE) which should spur competition between institutions to improve performance.

MIDE seeks to provide clear, objective and transparent information about the current state of 187 universities and university institutions using quality variables and dimensions, such as student performance on SABER PRO, graduate rates, quality of teaching, research, institutional strength and internationalisation. It is not clear whether the system as shown on the MIDE website is yet final. This review observed some gaps in the present system which might diminish its usefulness to students and institutions:

- Not all TEIs are covered. The first version of MIDE was developed for universities and university institutions, and the MEN intends to create another version for T&T institutions. The criteria for assessment would need to be adapted to reflect different institutional types and goals, with separate rankings for different institutions.
- The only figures currently visible on the website at present are the rankings for the 6 dimensions and the 18 variables. It doesn't provide the underlying information for each variable or whether different institutional circumstances have been taken into account, although these are important factors.

- At present, all the variables seem to have equal weighting. For example, within "institutional strength", the institution's dropout rate is given the same weight as its revenue-raising capacity. Some variables must surely be more important than others suggesting further consideration should be given to the indicators and weightings.
- No account seems to be taken of differences in institutional circumstances when ranking. For example, all rankings on the performance dimension seem to be based on final SABER PRO scores but to take fair account of the varying entry standards of students, it should be done on the basis of value added/distance travelled between SABER 11 and SABER PRO. Differences in institutional missions and funding levels are also relevant.

In sum, the MIDE ranking system is a potentially useful tool to encourage more focus and transparency around TE quality, but needs further development and a more sophisticated approach to ranking if that potential is to be realised. In particular, If MIDE is to become a useful tool for improvement, rather than just a list of TEIs, it needs to have buy-in from institutions, which does not yet appear to be the case. Rankings have certain uses, but even the best systems have their limitations and need to be interpreted with care. The risks of using ranking as the basis for funding policies or other important policy decisions that affect TEIs have been well documented (van Vught and Westerheijden, 2010; Hazelkorn, 2009). It will be important that MIDE does not distract from or distort efforts to improve quality at the institutional level.

Colombia has also taken steps to increase the funding available to TEIs for quality improvement and encourage institutions to pay more attention to quality and student outcomes. The limited funds available for quality improvement means that incentives should be well designed to focus on policies that can raise standards across the sector. The quality of teaching and research is a key success factor in the development of tertiary excellence (Altbach and Salmi, 2011). In Colombia, government policy to upgrade the academic workforce has focused on increasing the number of staff with postgraduate qualifications and encouraging more research. This is a positive step as Colombia is one of the Latin American countries with the lowest production of scientific papers per capita (OECD/World Bank, 2012).

Improving the quality of undergraduate teaching will also be important for raising standards. The review team was informed that often staff have weak pedagogical skills, use outdated teaching practices and curricula, and have limited capacity to address the learning needs of a highly heterogeneous student population. To improve the quality of teaching, recruitment processes need to consider the teaching ability of academic staff as well as their

qualifications. Existing staff need access to pedagogical courses and more professional development opportunities as well as encouragement to participate in exchange programmes with high-quality national and international institutions.

Improving technical and technological institutions

There are acute concerns over the quality and relevance of T&T programmes in Colombia. T&T programmes make up only for a small number of all tertiary level programmes that have achieved VHQA (CNA, 2015). Data on the places offered by institutions suggest that the institutional landscape is highly fragmented, with a few large providers and a great number of small institutions providing a limited range of programmes. For example, just 10 institutions account for 70% of all professional technical places. Public T&T programmes attract only a small share of all government subsidies and many, in particular smaller institutions, struggle to mobilise additional revenue to fund staff and instructional materials (see Policy Issue 3). While rates of return from T&T programmes vary, they are on average lower than from universities or university institutions, and T&T dropout and non-completion rates are on average higher, despite being shorter programmes.

The structural reforms of the TE sector envisaged under the SNET are intended to significantly enhance the quality and relevance of the T&T institutions in Colombia (MEN, 2015b) (see Policy Issue 3). The review team considers that these structural readjustments will only have the desired impact if they are combined with a reformed quality assurance system and a proactive policy agenda focused on changing teaching and learning practices within institutions and connecting them better with labour-market needs.

The current system of licensing and accreditation is ill equipped to assure and enhance the quality of T&T programmes. The standards applied by CONACES and the CNA were designed for academic programmes, and representatives of academia and businesses and employers interviewed by the review team observed that the standards failed to recognise key quality components for T&T courses, such as the level of employer engagement in course design and student assessment, or the existence of work-based learning opportunities. Standards for licensing and accrediting T&T programmes need to be designed with employers to encourage improvements at the institutional level that will prepare T&T graduates for employment.

T&T institutions also regard the SABER PRO assessment to be poorly suited to evaluating the learning outcomes of many T&T courses. Vocational competencies need to be assessed alongside the core academic competencies measured, whether this is through a revised SABER PRO, or a separate assessment for T&T programmes (a SABER TEC). Whatever approach is

chosen, it is important that assessment is designed with employers so that the outcomes are recognised by the labour market.

There has not been an independent in-depth review of T&T programmes in Colombia, and there is a lack of reliable information on the teaching and learning practices in institutions, in particular those managed by SENA. However, anecdotal evidence collected by the review team, and research carried out within the framework of the 2012 OECD-World Bank review, suggest that many T&T institutions in Colombia lack the basic elements required for quality VET (OECD, 2014a). While SENA tertiary level programmes usually include an element of work placement and engage teachers from industry, this does not appear to be common practice in other institutions. In most T&T programmes, especially those offered by small institutions, opportunities for work-based learning seem limited and staff lack up-to-date industry knowledge and experience. The review team also observed a general lack of emphasis on consolidating basic skills, which SABER 11 results shows many T&T students lack, and a lack of pedagogical skills among teachers to integrate basic skills with VET in a way that is engaging for young people and relates to employers' needs.

Policy issue 3: Strengthening governance and financing

International research has identified diversity as an important factor in the provision of successful TE (OECD, 2008). The variety of education providers in Colombia could therefore be an asset in giving more choice for students, being responsive to changing labour market needs, offering opportunities for innovation and providing more flexible programmes to a widening range of students with divergent abilities and interests. However, diversity poses challenges both in terms of quality assurance, as discussed above, and with respect to governance and funding. In a highly differentiated system where institutions have considerable autonomy, improving articulation – clarifying and strengthening the organisational structure and linkages between the tertiary education institutions and programmes – is essential. A shared, long-term vision is important, to facilitate co-operation between institutions, align individual mandates with broader economic and societal goals, and promote common norms, values and ethics. A diverse system also requires a broad-based funding system, which is both sustainable and flexible enough to respond to changing needs and opportunities.

Creating a more integrated system

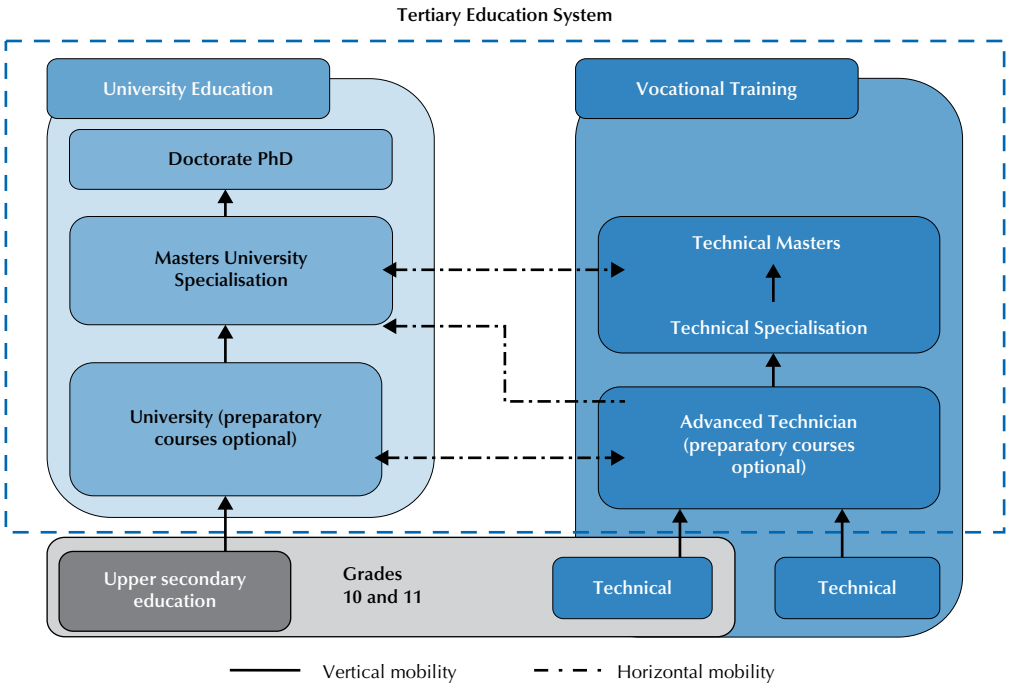
A key objective of current tertiary reforms in Colombia is to improve system articulation. The PND announced several policies, including a National Qualifications Framework (NQF) and a Credit Accumulation

and Transfer System and Information System (*Sistema Nacional de Acumulación y Transferencia de Créditos*, SNACT), intended to create a more integrated tertiary sector. The aim is to move towards a much clearer organisational structure, based on two core pillars: a university pillar (*educacion universitaria*) and a tertiary VET pillar (*formación profesional*) (MEN, 2015b). This new structure is intended to address several problems, identified by *the Commitment for Excellence 2034* and documented in many national and international studies. These problems include the lack of clear pathways to enable students to move from one institution to another and from one level to the next; the fragmented information systems that make it difficult for students, employers and the government to assess the value and outcomes of different programmes; and the low quality, low status and weak labour-market links of T&T programmes. The review team shares the government's diagnosis of these challenges, and considers that many of the policies proposed have the potential to improve system articulation and enhance quality, relevance and equity. However, there is an absence of clarity on several important issues, in particular with respect to improving information and integrating SENA. While the overall direction of change is clear, the lack of specificity around implementation, accountability and financing makes it difficult to see how the desired reforms will take effect.

Implementing a shared vision for change

For political and historical reasons countries have developed different ways of structuring tertiary provision. Many OECD countries have, or are moving towards, a relatively unified system. This is the case for Australia, Italy and the United Kingdom, for example, which in recent years have sought to abolish the divide between university and other programmes and encourage wider differentiation within a single institutional type (OECD, 2008). Other countries have built what are described as binary or dual systems, where there is a clearer distinction between different institutions and programmes. This is the path that Colombia has chosen to take, and is an approach adopted by several OECD countries, including Finland, Germany, the Netherlands and, in Latin America, Chile and Mexico (Wissenchaftsrat, 2010; Taylor et al., 2008). While details of Colombia's new institutional architecture are still being developed, current proposals suggest that the core distinction between programmes and institutions will be course duration and the degree of technical specialisation and applied focus (see Figure 5.7). Although both pillars will enable students to progress to a bachelor's (*licenciatura*) and master's degree, the core offer of the tertiary VET pillar will be shorter programmes (a minimum of two years) designed to provide participants with specialised professional knowledge and skills in a specific area.

Figure 5.7. **Moving towards a two-pillar tertiary education system**



Source: MEN (2015b), *Bases para la Construcción de los Lineamientos de Política Pública del Sistema Nacional de Educación Terciara (SNET)*, Viceministerio de Educación Superior, Dirección de Fomento de la Educación Superior, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

For Colombia, having decided to move towards a dual system, it is important that this vision is shared and followed by all stakeholders. An important strength of the current reform proposals is that they are informed by a three-year national consultation, which engaged all actors (students, academics, TEIs, government, employers and the general public), and reached the general conclusion that Colombia would benefit from moving towards a two pillar system (Box 5.4). This provides legitimacy for the general direction of change. The *Commitment for Excellence 2034* report that resulted from the consultation also provides a shared long-term perspective on how TE in Colombia needs to develop over the next 20 years, and on the fundamental values and principles that should guide this transformation. There are few, if any, public policy statements of similar depth, breadth and quality in Latin America, or among OECD countries.

Box 5.4. **The National Higher Education Council's long-term vision and strategy**

The *Commitment for Excellence 2034*: a proposal for a public policy for excellence in Colombia's higher education system (*Acuerdo por lo Superior 2034: Propuesta de Política Pública para la Excelencia de la Educación Superior en Colombia en el Escenario de la Paz*), is the title of an ambitious and far reaching report, produced by the National Council of Higher Education (*Consejo Nacional de Educación Superior*, CESU), published in 2014 with the intention of building a national consensus about the future of TE in Colombia. It was conceived after the withdrawal in 2011 of the government's bill to reform Law 30 of 1992. Law 30 was devised when Colombia had less than 500 000 tertiary students, whereas today there are over 2 million; and there has been continuing discontent over the years with the law's rigidity, lack of definition and scope. The opportunity to update the law and address these discontents was lost when one highly controversial clause – to allow for profit tertiary education institutions – caused the whole 2011 reform proposal to fail.

CESU, a collegiate body with representatives from universities, T&T institutions, the general public and industry, then proposed a Grand National Dialogue on Higher Education (*Gran Dialogo Nacional por la Educación Superior*) to develop a national consensus on what Colombians want from their TE system. The dialogue involved an opinion survey, expert meetings, public meetings, regional meetings and online consultations. At the end of this two-year process, 33 000 people had participated. From this consultative process CESU crafted their report, presented as a road map toward the future. They proposed further national consultations in 2018, 2024 and 2034.

The report reached the following key conclusions. The fundamental goals of Colombia's tertiary education system are to increase access and inclusion; improve quality and relevance; and strengthen research, science, technology and innovation. Four vital strategies are needed to achieve these goals: greater regional balance and participation; the creative use of modern information and communication technologies with online and distance learning; internationalisation for both institutions and students; and the building of a culture of educational communities closely linked to citizen responsibilities and co-operation. However none of these goals can be achieved without two others: a reform of the structure and governance of the system, and preservation of its financial sustainability.

The President received the report in July 2014. Though he has not endorsed every detail, some of the report's proposals are to be found in the National Development Plan 2014-2018.

Source: CESU (2014), *Acuerdo por lo Superior 2034: Propuesta de Política Pública para la Excelencia de la Educación Superior en Colombia en el Escenario de la Paz,* Consejo Nacional de Educación Superior (National Council of Higher Education), www.dialogoeducacionsuperior.edu.co/1750/articles-319917_recurso_1.pdf.

However, translating this broad general consensus into positive improvements in the quality, relevance and equity of TE in Colombia will require important changes in legislation and governance. Current reform proposals do not include any proposal to revisit the 1992 law, which is seen by

both the Commitment for Excellence 2034 and the 2012 OECD and World Bank review as antiquated and a major obstacle to progress. It is hard to envisage how the desired strengthening of T&T institutions and programmes can take effect without establishing their identity in law. At present, there are major overlaps in the roles and responsibilities of different actors which can create both confusion and gaps in accountability. New legislation will also be important for supporting the implementation of proposed policies on qualifications, credit transfer, prior learning recognition and information sharing.

Improving system articulation will require strong and energetic governance at national and regional levels to establish links between institutions, and between TEIs and the economy and labour market. Recent international experience, recorded in the OECD, shows that successful national systems require models of system governance which guarantee university autonomy, permit the effective intervention by national governments to regulate the system and involve the full participation of major stakeholders (Gornitzka and Stensaker, 2014; De Boer, Enders and Schimank, 2008).

Supporting student mobility and avoiding dead ends

Ensuring that students can progress between different institutions and levels is even more important in a differentiated system than in a unified one. At present, the only way students in Colombia can be sure that graduation from a lower-level programme will entitle them to enter a higher level programme without having to go back to the beginning, is by going through a propaedeutic cycle within the same institution. However, in many places and many disciplines, propaedeutic cycles are not available. Very few students in Colombia make the transition from a T&T institution to a public university. In 2011, only 4% of university programmes could be accessed by graduation from T&T programmes. The PND announced three strategies intended to build clearer pathways, ladders and bridges to enable students to progress between different institutions and programmes: a national qualifications framework, a national system for credit accumulation and transfer, and improvements in the information system.

The development of the NQF offers an excellent opportunity to review, simplify and clarify Colombia's over-elaborate hierarchy of degrees and qualifications, as recommended in the 2012 OECD and World Bank report. Colombia has been discussing this since 2004. The current timetable for its introduction is: design 2014-16, adoption 2016, early implementation 2017-18, full implementation in 2019, although several stakeholders interviewed during the review visit expressed scepticism as to whether an initiative so long under preparation would reach completion (MEN, 2015a).

National qualifications frameworks encompass all education qualifications – or all TE qualifications, depending on the policy of the country concerned – in

an education system. They show what learners may be expected to know, understand and be able to do on the basis of a given qualification (learning outcomes) as well as how qualifications within a system articulate, that is how learners may move between qualifications in an education system. Many OECD member countries, including Denmark, Estonia, France, Germany, Ireland, Italy, the Netherlands and the United Kingdom, have frameworks and have found them useful for clarifying the place and value of vocational qualifications and facilitating learning progression. All 47 signatories to the Bologna Process (a series of agreements designed to ensure comparability in the standards and quality of higher education qualifications between countries in and around Europe) have adopted NQFs or committed themselves to doing so very soon. Adoption of the NQF should therefore help Colombia's internationalisation efforts by improving recognition of Colombian qualifications and facilitating the mobility of tertiary students and academic staff abroad.

The Colombian NQF is expected to contain clear descriptors of the standards, competencies and skills a person graduating from each level of the education and training system will have acquired. It can then be assumed that all qualifications obtained at a given level are comparable. A well-understood NQF should therefore enable TEIs to devise and dovetail their programmes, syllabuses and entry requirements so as to ensure that, for example, an engineering graduate from a technological institution has the exact portfolio of knowledge, skills and competencies they need to start a bachelor's programme in engineering at a university.

The NQF, combined with the government's planned credit accumulation and transfer system (SNACT), should also enable students who have done part of a programme at one institution to transfer, carrying with them credit for what they have already learnt, and complete the programme at another institution. If, as intended, the SNATC includes arrangements for the recognition of prior learning outside the education system, e.g. in the workplace, this should also open up access and re-entry opportunities for mature students, thus strengthening the lifelong learning system. Both the NQF and the SNACT would also support improvements at the upper secondary level, where the provision of vocational courses is fragmented and there are important gaps in standards, qualifications and credit recognition.

The adoption of the NQF and the SNACT is of course insufficient on its own to open up all the possible pathways just outlined. Its value will depend on the willingness and ability of Colombian TEIs to match existing programmes and qualifications with specified NQF levels. Any system for credit accumulation and transfer necessarily depends on all institutions having the capacity and commitment to evaluate skills and recognise credits, which is currently far from the case (CESU, 2014). Institutions should also

be ready to specify their entry requirements in terms of NQF level, and treat all applicants who have achieved that level equally. It is crucial, moreover, that the definition of qualifications involves and is understood by all actors – not only government and TEIs, but also employers. Several industry representatives interviewed by the review team expressed the concern that the NQF was being approached as a way of organising the supply of TE, with insufficient attention given to the needs of the economy and the demand for skills in the labour market.

If owned and adopted by all stakeholders, qualification and credit transfer systems can be helpful tools to support student progression within TE, and from education into employment. However, expectations of what they can achieve have sometimes been too high. They are not a panacea (OECD, 2014a; Allais et al., 2009). There is the risk that focusing on the structural reorganisation of the tertiary sector could distract from some of the important reforms that will be needed to improve the equity and quality of the system, discussed above. In particular, it is difficult to envisage how qualification and credit transfer systems could have the desired impact on the quality and relevance of TE without significant improvements in information and transparency across the sector.

The government has announced plans to create a TE information system but it is not clear what this will entail. The 2012 OECD and World Bank report highlighted several concerns with the quality of information that is publicly available in Colombia, and the implications of these for transparency and accountability within the sector. The review team considers that many of the issues identified remain unanswered. Information is divided between different databases which are not linked, or not easily linked. This make it very difficult for students to get a full picture of what programmes are on offer, their admittance and completion rates, and their potential returns based on fees and expected salaries. Students would have to access three separate national databases, as well as the websites of individual institutions, if they want to make a well-informed choice about their course of study. Many of these databases contain valuable information but they are not easy to navigate, nor are they widely known and promoted among students. There are, moreover, important gaps in the quality and extent of information available. While SNIES collects information on all registered institutions and programmes, the degree of information available varies significantly. Reporting is voluntary and the MEN has limited means to ensure transparency on organisational and financial matters. The reforms introduced by Law 1140 of December 2014 are promising steps towards addressing these gaps, but it is too soon to assess their impact.

An additional challenge in Colombia is how to integrate SENA and its tertiary programmes more closely into the future national tertiary system.

Unless T&T programmes offered by SENA are subject to the same quality assurance mechanisms and public information requirements as other T&T programmes offered by other TEIs, it will be difficult to guarantee standards to students or future employers. While SENA has played an important role in expanding the supply of T&T programmes, its lack of integration in the tertiary system makes student progression from SENA institutions to higher levels of study more difficult (CESU, 2014). It also undermines effective skills development planning, making it more difficult for policy makers at national and regional level to pool limited resources to address skills gaps. It will be important to move towards much closer integration of SENA within the governance and information systems of the TE sector in Colombia. It will also be important to clarify the relationship and pathways between the national tertiary system and the EWHD system, where SENA plays a prominent role.

Ensuring sustainable and effective funding

Colombia allocates a relatively large proportion of its public education budget to TE, and total spending on TE as a percentage of GDP is above the OECD average and most OECD countries. In this context it seems unlikely to expect a considerable increase in funding for TE in the immediate future. Greater public investment, in particular, would be difficult, and both undesirable, given the scale of the need in the early childhood and school sectors, and regressive, given the high private returns from TE and unequal participation. Therefore, the success of Colombia's efforts to transform TE will hinge in large part on the ability to allocate available resources more effectively and efficiently.

The main obstacle to effective resource allocation in Colombia remains the outdated, inequitable, and inefficient system for distributing national government resources to TEIs established in Law 30 of 1992. This has resulted in great disparities between the allocations to public universities and those to university, technological and professional technical institutions, as well as disparities within these groups. Some 48% of the total resources provided to public universities are allocated to just 3 universities, leaving 52% to be shared between the remaining 29, while only 19 out of the 30 T&T public institutions regularly receive public subsidies (CESU, 2014). Without accounting for the resources of SENA, in 2012 T&T institutions received just 22% of the subsidy per student received by the universities, a difference far larger than in any OECD country (MEN, 2015a).

There is broad consensus that the current funding mechanism is inadequate (CESU, 2014). Instead of being based on historic levels, funding allocations to individual institutions should reflect numbers of students enrolled, and changes in those numbers. Programmes at different levels

and in different disciplines have different unit costs; these too should be reflected in allocations. The government may also wish to consider special allocations to institutions which offer types and levels of study regarded as national priorities or economically important, or which provide opportunities in departments with little tertiary provision. This will be essential to reduce regional inequities, raise the quality of T&T programmes, and align the TE system better with national and regional development goals.

Funding systems can also be used to incentivise and reward performance. In the current system, only about 17% of the resources transferred to public institutions for operations and investment are allocated based on results (CESU, 2014). Some steps towards performance-based distribution have been taken recently through the CREE, which allocates resources on the basis of coverage and quality indicators and tied to improvement plans. These reforms are aimed at increasing investment in research, upgrading the qualification of staff and improving infrastructure. However, the CREE's resources are small compared to overall public funding. Moving towards a results-based approach, and using funding to incentivise improvement, would mean increasing the performance-related component of the national transfer system. Institutions could be rewarded for efficiency – achieving low dropout and repetition rates, and high completion rates within a reasonable time. Institutions could be even better rewarded if they achieve these while also admitting high numbers of students from disadvantaged backgrounds or underperforming schools and mobilising resources to support them; keeping tuition fees and unit costs low; showing good value added in the SABER PRO tests; ensuring high student satisfaction levels, good employment outcomes and high rates of return for their students; and achieving good quality ratings.

These reforms will require considerable improvements in the transparency and accountability of tertiary institutions in Colombia (Salmi, 2013). Without accurate information on how tertiary institutions are spending their resources and performing, it is difficult to calculate per-student allocations and assess the appropriate level of public investment. Greater transparency will also help in reviewing the fee structure of TEIs, which has been found to be regressive and not always related to the quality or value of education provided (OECD/IBRD/The World Bank, 2013). With the current move towards greater demand-side financing through scholarship schemes such as *Ser Pilo Paga*, greater transparency of both public and private institutions will be crucial to establish reasonable per-student costs. Some institutions are seven times more costly than others; it is important to demonstrate they deliver value for public money. Recent effort to improve financial oversight, including the creation of the Superintendency for Education, are steps in the right direction, but further measures will be needed to ensure transparency and therefore effectiveness, in resource use.

Finally, an effective TE financing strategy will need to address the funding of SENA institutions and programmes. In 2013, the estimated expenditure of SENA on tertiary education was roughly equivalent to that of ICETEX and amounted to about 38% of the national transfer to all tertiary education institutions (MEN, 2015a). This generous funding enables SENA to provide tuition-free education, which makes its programmes highly popular and helps explain its dominant position in tertiary VET provision (with 58% of enrolment). There is no doubt the financial strength of SENA has expanded access to tertiary education for many disadvantaged and under-served communities. However, it has also prevented the creation of fair competition within the VET system and the lack of transparency around funding and performance makes it difficult to assess whether the concentration of resources in SENA is the most efficient and effective use of public investment. As Colombia moves to restructure its tertiary VET provision, it will be essential to review the significant disparities in funding between SENA and other T&T institutions and programmes.

Recommendations

Tertiary education reform is high on the national policy agenda in Colombia, with ambitious plans to reduce equity gaps and raise quality while at the same time fundamentally restructuring the system of tertiary provision. Success in reaching these goals will have important implications for the country's long-term growth and development. New policy initiatives, from the increase in funding for high-performing students from disadvantaged backgrounds to renewed efforts to strengthen quality assurance and facilitate student progression, are promising. They will have most impact if coupled with increased focus on improvement at the institutional level, in terms of better support to students, greater attention to teaching quality and stronger labour-market links.

Expanding access and improving equity

Recommendation 1.1: Ensure accessible information to support students' decisions

Helping students make the right choices about further education and the labour market is vital in a country where half the student cohort drops out and pathways between institutions and programmes are unclear. Further guidance could be provided to students on the programmes and institutions available, the application process, financing options and the potential labour-market outcomes. Consideration could be given to make student admission processes

centrally supervised and more transparent. Career guidance services need to be prioritised for disadvantaged students and at key transitional periods.

Recommendation 1.2: Target academic support on students at risk

Ensuring that upper secondary school graduates are ready to enter TE is of key importance to facilitate their successful entry, progression and graduation, in particular for the most disadvantaged ones. Addressing this challenge demands quality improvements across the school system, as recommended by previous chapters. However, there are measures that TEIs can and must take to support young people struggling because of poor school preparation. The experience of some TEIs in providing optional bridge courses and other arrangements, such as improved propaedeutic cycles to facilitate student progression, should be reviewed and adapted to the new tertiary system. To improve graduation rates, TEIs should also actively identify students who are at a high risk of dropping out, such as those who enter with low SABER 11 results and struggle to make progress, and provide them with a range of supports such as remedial classes or mentorship schemes.

Recommendation 1.3: Remove financial obstacles to enrolment for low-income students

Stronger financial support arrangements are key to ensuring equitable access for less advantaged students. Public funding to support access for low-income students, either through loans or scholarships, needs to be increased and targeted on those with the greatest financial need. Efforts to obtain student loan and scholarship funding from other sources, such as the CREE tax and from TEI's own resources, should be stepped up. The ICETEX loan conditions could be more flexible for students from very low-income families and more strict for those with less financial need. The impact on equity of the *Ser Pilo Paga* scholarships programme compared with other alternatives should be carefully evaluated. In particular, the distribution of costs between the MEN and the TEIs who receive the most talented students – and charge very high tuition fees – could be revisited. Finally, the MEN could incentivise TEIs to create an income-based tuition fee structure and provide additional financial assistance to make tertiary education affordable for the most disadvantaged students.

Recommendation 1.4: Put regional equity at the forefront of reforms

Reducing the stark differences in access and performance across regions should be put at the centre of reform efforts. Lessons from the recent evaluation of CERES should be used to inform regional development efforts, as should the experience of other countries that have successfully redressed

imbalances. Funding will be a key factor, and measures to channel more resources to disadvantaged areas through reforms to the national transfer system and more, and more affordable, loans to rural students, will need to be matched by measures to enhance cost efficiency, such as through mergers and greater use of blended learning. Colombia should consider establishing regional co-ordinating councils to ensure local concerns are placed at the forefront of public policy. Such councils could also help to strengthen engagement between TEIs and employers, to tailor programmes to better meet regional economic needs and to mobilise additional funding.

Ensuring quality and relevance

Recommendation 2.1: Introduce a more stringent quality assurance system

The quality and relevance of TE could be improved if a single national agency handles all important aspects of quality assurance in TE and the registration of programmes and high-quality accreditation processes are combined. The standards required for registration of new programmes should be raised to ensure that all institution offer an acceptable minimum quality to their students and the process of institutional accreditation should be adequately differentiated to reflect different institutional mandates. Quality assessments should give due weight to programmes' relevance and labour-market outcomes. Businesses and employers should be involved in developing these new consolidated quality assurance processes and standards. Employers, as well as students, should also be included on institutional assessment teams.

Recommendation 2.2: Create a culture of institutional and academic improvement

It is important that systems to rate and rank TEI performance are well designed and fair. The further development of the MIDE should ensure that the assessment criteria reflect different institutional mandates and take into account contextual information on student and institutional circumstances. Involving key stakeholders (TEIs, academics, students, employers) in the design of the MIDE and other information tools can help to ensure their validity and use. Raising standards will require mutually reinforcing policies at national and institutional level to strengthen key drivers of academic excellence. Improving teaching quality should receive high priority. Staff should have greater opportunities for professional development, including support to raise their qualifications to postgraduate levels, undertake pedagogical in-service courses, and participate in academic exchanges with high quality national and international institutions. Greater consideration

could also be given to the pedagogical skills of staff in their recruitment, appraisal and promotion. Quality is intrinsically related to student outcomes. Proactive efforts are needed to connect teaching and learning across all TEIs to the needs of the Colombian economy and labour market in order to ensure students graduate with skills that provide access to jobs.

Recommendation 2.3: Level up the quality of institutions in the VET pillar

An in-depth evaluation of institutions and programmes in the VET pillar should be carried out in order to design an effective long-term policy response to its perceived lack of quality and relevance. This review should also include SENA. In the immediate to medium term, there are steps Colombia can take to improve the quality of VET. First, standards for licensing and accrediting programmes and institutions should be revised to capture key quality components of VET, which differ from those for academic programmes. Second, institutions should be encouraged to ensure that trainers have up-to-date industry knowledge and experience and student greater access to work-based learning opportunities. To make this happen, regional governments could create bodies to foster synergies between the TEIs and employers, such as Antioquia's University-Firm-State Committee. Finally, Colombia should pursue measures to improve the assessment and certification of the skills acquired by VET students. Mechanisms should be put in place to ensure the adoption of the NQF (see Recommendation 3.1) by employers and TEIs. Colombia might also pursue changes to SABER PRO to improve the assessment of VET competencies, alongside core academic competencies. This should be done with the involvement of employers.

Strengthening governance and financing

Recommendation 3.1: Creating a more joined-up system

The proposal to restructure Colombia's TE system into two main pillars – a university pillar and a VET pillar – has the potential to create clearer and stronger pathways for skills acquisition, and should be pursed. However, it is important that structural reforms support, and do not become a bureaucratic distraction from, the primary task of improving the quality and relevance of learning. The process of creating the NQF should be accelerated, and adequate attention given in the design to implementation requirements. It should be the result of a broad consultation and provide a clear framework for students and employers about the degrees and qualifications available and what they mean in the labour market. In conjunction with the NQF, the development of a credit transfer system will be essential to remove the

existing obstacles in the recognition of prior learning and to enable students to progress through, and into and out of, the tertiary system. Systemic reform will also require stronger and more energetic governance at national and regional levels to connect TEIs with employers and forge a more integrated tertiary sector that meets Colombia's social and economic needs.

Recommendation 3.2: Move towards a performance-based funding system

None of these desired changes will be possible without a funding system which aligns the improvement efforts of TE institutions with national goals. As recommended by the 2012 OECD-World Bank report, Law 30 of 1992, which determines how the bulk of resources transferred to TEIs is distributed, should be reformed at the earliest possible opportunity. The allocation of resources should be designed to encourage TEIs to achieve greater efficiency, equity, quality and relevance. To this end, a larger share of resources should be distributed on the basis of key performance indicators. The funding reform is of particular importance to the tertiary VET pillar to ensure that T&Ts receive adequate resources. The resources of the CREE, which are currently solely allocated to SENA, could be distributed more broadly among high-quality institutions providing VET at the post-secondary and tertiary level. Finally, greater transparency and accountability will be essential to make the most of the limited public resources available.

Notes

1. The ISCED 2011 classification levels relevant to tertiary education (TE) are levels 5-8. Level 5 (Short-cycle TE) and Level 6 (Bachelor's or equivalent) are defined above. Level 7 is Master's or equivalent: programmes designed to provide advanced academic and/or professional knowledge, skills and competencies leading to a second tertiary degree or equivalent qualification. Level 8 is Doctoral or equivalent: programmes designed primarily to lead to an advanced research qualification, usually concluding with the submission and defence of a substantive dissertation of publishable quality based on original research.
2. Level 6 in the ISCED 2011 classification: bachelor's or equivalent programmes providing intermediate academic and/or professional knowledge, skills and competencies leading to a first tertiary degree or equivalent qualification.
3. Level 5 in the ISCED 2011 classification: short first tertiary programmes that are typically practically-based, occupationally-specific and prepare for labour market entry. These programmes may also provide a pathway to other tertiary programmes.
4. Law 30 December, 28 1992 which organised the Higher Education public service.
5. The Income tax for equality (*Impuesto sobre la Renta para la Equidad,* CREE) is a national tax, which works similarly to an income tax on the profits and gains of the companies. It is meant to be a company's contribution for the benefit of their employees, employment generation and social investments.
6. The Selection System of Beneficiaries of Social Programmes (*Sistema de Identificacion de Potenciales Beneficiarios de Programas Sociales,* SISBEN) is a proxy means-based test tool used by the government to identify the most disadvantaged families (socio-economic levels 1-3 out of 6) so that they may access social programmes.
7. Reference year for Uruguay is 2010; Argentina, 2011; and Brazil and Chile, 2012.

References

Allais, S. et al. (2009), "Learning from the first qualifications frameworks", *Employment Working Paper*, No. 45, International Labour Office, Geneva www.ilo.org/employment/Whatwedo/Publications/working-papers/WCM_041902/lang--en/index.htm.

Altbach, P.G. and J. Salmi (eds.) (2011), *The Road to Academic Excellence: The Making of World-Class Research Universities,* The International Bank for Reconstruction and Development and The World Bank, Washington, DC.

Arango, L.E. and G. Bonilla (2015), "Human capital agglomeration and social returns to education in Colombia", *Borradores de Economía,* No. 883, Banco de la República, www.banrep.gov.co/sites/default/files/publicaciones/archivos/be_883.pdf.

Brunner, J. (2013), "The rationale for higher education investment in Ibero-America," *OECD Development Centre Working Papers*, No. 319, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k40d67l7l8x-en.

Castaño, H. L. (2012), "El mercado laboral Colombiana: Tendencias a largo plazo", in *El Mercado del Trabajo en Colombia: Hechos, Tendencias y Instituciones,* Banco de la Republica, www.banrep.gov.co/docum/Lectura_finanzas/pdf/lbr_merc_trab_1.pdf.

CEDLAS/World Bank (2015) "Education", *Socio-Economic Database for Latin America and the Caribbean*, Centro de Estudios Distributivos, Laborales y Sociales, Universidad Nacional de La Plata and the World Bank, http://sedlac.econo.unlp.edu.ar/eng/statistics-detalle.php?idE=37.

CESU (2014), *Acuerdo por lo Superior 2034: Propuesta de Política Pública para la Excelencia de la Educación Superior en Colombia en el Escenario de la Paz,* Consejo Nacional de Educación Superior (National Council of Higher Education), www.dialogoeducacionsuperior.edu.co/1750/articles-319917_recurso_1.pdf.

CNA (2015), *Boletín Estadístico*, March 2015, Consejo Nacional de Acreditación (National Accreditation Council), www.cna.gov.co/1741/articles-322100_Boletin_marzo_2015.pdf.

DANE (2015), "Pobreza y desigualdad", *Pobreza y Condiciones de Vida*, Departamento Administrativo Nacional de Estadistica (National Department of Statistics), www.dane.gov.co/index.php/estadisticas-sociales/pobreza.

De Boer, H. F., J. Enders and U. Schimank (2008), "Comparing higher education governance systems in four European countries", in N.C. Soguel and P. Jaccard (eds.), *Governance and Performance of Education Systems*, Springer, pp. 35-54.

DNP (2015), *Bases Plan Nacional de Desarrollo 2015-2018*, Departamento Nacional de Planeación (National Planning Department), Bogotá.

DNP (2014), *Evaluación Institucional y de Resultados del Programa Centros Regionales de Educación Superior (CERES)*, Departamento Nacional de Planeación (National Planning Department).

Gornitzka, Å, and B. Stensaker (2014), "The dynamics of European regulatory regimes in higher education–Challenged prerogatives and evolutionary change", *Policy and Society* Vol. 33/3, pp. 177-188.

Hazelkorn, E. (2009), "The impact of global rankings on higher education research and the production of knowledge," *UNESCO Forum on Higher Education, Research and Knowledge Occasional Paper*, No. 16, United Nations Educational, Scientific and Cultural Organization.

ICETEX (n.d.), "Quiénes somos", Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior (Colombian Institute for Student Loans and Study Abroad) website, www.icetex.gov.co/DnnPro5/Default.aspx?tabid=1111.

ICFES (2015), "Information on the SABER PRO exams", Instituto Colombiano para la Evaluación de la Educación (Colombian Institute for the Evaluation of Education) website, www.icfes.gov.co/index.php/instituciones-educativas/saber-pro/informacion-de-la-prueba-saber-pro#.

ICFES (2014), "SABER PRO results 2014", Instituto Colombiano para la Evaluación de la Educación (Colombian Institute for the Evaluation of Education) website, www.icfes.gov.co/resultados/saber-pro-resultados-individuales/resultados-agregados-saber-pro-2014.

IDB (2015), "Returns to higher education in Chile and Colombia", *IDB Working Paper Series*, No. 587, Inter-American Development Bank, http://publications.iadb.org/bitstream/handle/11319/6858/Returns_to_Higher_Education_in_Chile_and_Colombia.pdf?sequence=2.

Melo, L.A., J.E. Ramos, and P.O. Hernández (2014), "La educación superior en Colombia: Situación actual y análisis de eficiencia," *Borradores de Economía,* No. 808, Banco de la República.

MEN (n.d.a) (2015), "SNIES: Sistema Nacional de Informacion de la Educación Superior", Ministerio de Educación Nacional (Ministry of National Education) website, www.mineducacion.gov.co/sistemasdeinformacion/1735/w3-propertyname-2672.html.

MEN (n.d.b) SPADIES (Sistema para la Prevención de la Deserción de la Educación Superior) website, http://spadies.mineducacion.gov.co (accessed on 20 July 2015).

MEN (2015a), "OECD-Colombia education and skills accession policy review: Country background report", Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2015b), *Bases para la Construccion de los Lineamientos de Política Pública del Sistema Nacional de Educacion Terciara (SNET)*, Viceministerio de Educación Superior, Dirección de Fomento de la Educación Superior, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

MEN (2014), "Tasa de deserción acumulada por cohorte según semestre", *SPADIES (Sistema para la Prevención de la Deserción de la Educación Superior*), Ministerio de Educación Nacional (Ministry of National Education), www.mineducacion.gov.co/sistemasdeinformacion/1735/articles-254702_archivo_pdf_estadisticas_2013.pdf.

National Congress (2014), "Ley 1740 de 23 Dicembre 2014" [Law 1740, 23 December 2014], National Congress of Colombia, http://wp.presidencia.gov.co/sitios/normativa/leyes/Documents/LEY%201740%20DEL%2023%20DE%20DICIEMBRE%20DE%202014.pdf.

National Congress (1992), "Ley 30 de Dicembre 28 de 1992" [Law 30, 28 December 1992], National Congress of Colombia, www.cna.gov.co/1741/articles-186370_ley_3092.pdf.

OLE (n.d.), "Estadística de interés", Observatorio Laboral Para la Educación website, www.graduadoscolombia.edu.co.

OECD (2015a), *Education at a Glance Interim Report: Update of Employment and Educational Attainment Indicators*, OECD Publishing, Paris, www.oecd.org/edu/EAG-Interim-report.pdf.

OECD (2015b), *OECD Skills Outlook 2015: Youth, Skills and Employability*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264234178-en.

OECD (2015c), *E-learning in Higher Education in Latin America*, Development Centre Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264209992-en.

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

OECD (2014b), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

OECD (2012), *Higher Education in Regional and City Development: Antioquia, Colombia 2012*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264179028-en.

OECD (2008), *Tertiary Education for the Knowledge Society: Volume 1 and Volume 2*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264046535-en.

OECD/IBRD/The World Bank (2013), *Reviews of National Policies for Education: Tertiary Education in Colombia 2012*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264180697-en.

Quacquarelli Symonds (2015), "QS University Rankings: Latin America 2015", QS Top Universities, www.topuniversities.com/university-rankings/latam-university-rankings/2015.

Salmi, J. (2013), *La Urgencia de Ir Adelante: Perspectivas desde la Experiencia Internacional para la Transformación de la Educación Superior en Colombia*, Ministerio de Educación Nacional (Ministry of National Education), Bogotá.

Taylor, J.S. et al. (eds.) (2008), *Non-University Higher Education in Europe,* Springer Science + Business Media B.V.

UNESCO (2012), *International Standard Classification of Education – ISCED 2011*, United Nations Educational, Scientific and Cultural Organization, Paris.

UNESCO-UIS (2015), "Browse by theme: Education", *Data Centre,* UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx.

Van Vught, Frans and D.F. Westerheijden (2010), "Multidimensional ranking: A new transparency tool for higher education and research", *Higher Education Management and Policy*, No. 16, Vol. 22/3, pp.1-26.

Wissenschaftsrat (2010), *Recommendations on the Differentiation of Higher Education Institutions*, Wissenschaftsrat, www.wissenschaftsrat.de/download/archiv/10387-10_engl.pdf.

Annex A

The authors

International experts

José Joaquín Brunner is a Professor and Researcher at the Center for Comparative Education Policy, Universidad Diego Portales, Chile. He leads the UNESCO Chair in Comparative Higher Education Policy. José Joaquín has consulted on tertiary education policy in over 35 countries and for multiple international organisations, including the World Bank, UNESCO and the International Development Research Center (IDRC), Canada, among others. In Chile, he served as Minister Secretary General of Government (1994-98) and chaired the President's Committee on Modernisation of Chilean Education in 1994. José Joaquín has also chaired multiple committees, including the Presidential Committee on Tertiary Education Policy (1990), and written extensively on the sociology of education and culture.

Candido Alberto Gomes was Legislative Adviser for Educational Affairs to the Brazilian Federal Senate and the National Constituent Assembly. He is a Professor of Sociology and Education at the Catholic University of Brasilia. Candido has also acted as a consultant in the fields of education and work, and educational finance to national and international organizations, such as UNESCO and United Nations Development Programme (UNDP). He has almost 300 academic publications in several languages, including diverse editions of the book *A educação em novas perspectivas sociológicas* [Education in new sociological perspectives].

OECD staff

Elizabeth Fordham is the Senior Advisor for Global Relations in the OECD Directorate for Education and Skills and leads the OECD's Reviews of National Education Policies in partner countries. She most recently published the OECD Review of Education in Indonesia (2015) and is currently engaged in reviews of education policies in Thailand, Costa Rica and Morocco. Prior to joining the OECD in 2014, Elizabeth served as education programme

specialist at UNESCO for nearly a decade, most recently as policy lead for cooperation with BRICS countries. Elizabeth Fordham has a BA Hons and MPhil from the University of Cambridge, UK, and a PhD from the European University Institute in Florence, Italy.

Rowena Phair is the Project Leader of the Early Learning Study in the Early Childhood and Schools Division of the OECD Directorate for Education and Skills. She is also currently involved in a review of education policy in Canada. Prior to joining the OECD, Rowena worked on public policy development and implementation in various sectors of the New Zealand government, most recently as Deputy Secretary at the Ministry of Education, where she was responsible for schooling policies, curriculum and assessment, resourcing for schools and industrial relations. Rowena has a Masters in Economics and a BA in Economics and Political Science, from the University of Auckland.

Anna Pons is a Policy Analyst in the OECD Directorate for Education and Skills. Most recently, she has coordinated the Education and Skills OECD Accession Review of Colombia and contributed to reviews of the effectiveness and equity of schools in Mexico, Kazakhstan, and Latvia. She also co-authored a thematic report on Equity and Quality in Education (2012). Prior to joining the OECD in 2010, Anna worked for the Higher Education Commission of the Government of Catalonia and the private sector. She holds BAs in Economics and Political Science from University Pompeu Fabra, Spain, and a Masters in Economics and Public Policy from Sciences Po, ENSAE and École Polytechnique, France.

Juliana Zapata is a Research Assistant in the OECD Directorate for Education and Skills. She is currently contributing to the reviews of education policies in Chile and Costa Rica. Since joining the OECD in 2010, Juliana has worked on a range of education policy issues across OECD countries and participated in the *Education Policy Outlook* series and the *Improving Schools* projects of Iceland and Wales. Juliana was a teacher in both New York City and Paris. She holds a Masters of Public Affairs from Sciences Po, France, a Masters in Urban Education from Mercy College, United States, and a BA in International Affairs from Tufts University, United States.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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

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

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

OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
(91 2016 02 1 P) ISBN 978-92-64-25059-8 – 2016

Reviews of National Policies for Education

Education in Colombia

How can Colombia improve both the quality and equity of its education system while also addressing efficiency challenges? Despite a fundamental transformation of its education system over the past two decades, Colombia faces two critical challenges: high levels of inequality from the earliest years and low levels of quality across its education system. This report assesses Colombia's policies and practices against the best approaches in education and skills from across the OECD. It analyses its education system's major strengths and the challenges it faces, from early childhood education and care to tertiary education. With insights drawn from international research, it offers recommendations on how Colombia can improve quality and equity to reach its goal of being the "most educated" country in Latin America by 2025. This report will be of interest in Colombia as well as other countries looking to raise the quality, equity and efficiency of their education systems.

Contents

Chapter 1. Colombia and its education system
Chapter 2. Early childhood education and care in Colombia
Chapter 3. Primary and lower secondary education in Colombia
Chapter 4. Upper secondary education in Colombia
Chapter 5. Tertiary education in Colombia

Consult this publication on line at ***http://dx.doi.org/10.1787/9789264250604-en.***

This work is published on the OECD iLibrary, which gathers all OECD books, periodicals and statistical databases.
Visit ***www.oecd-ilibrary.org*** for more information.

OECD*publishing*
www.oecd.org/publishing

ISBN 978-92-64-25059-8
91 2016 02 1 P