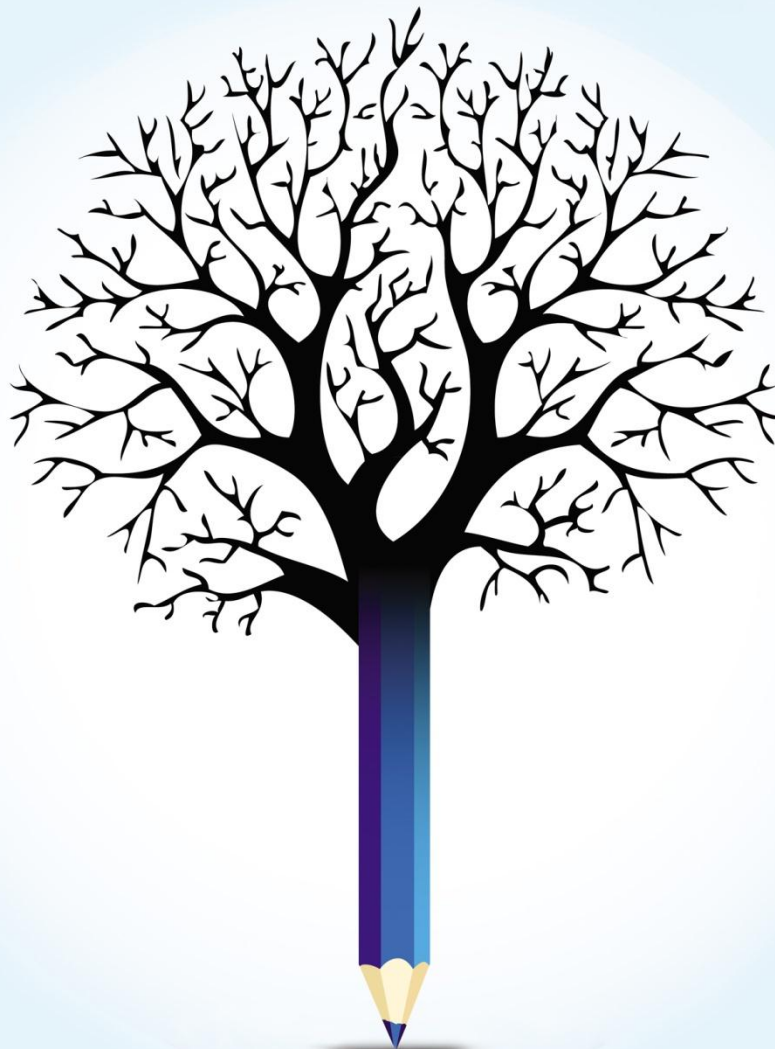




EDUCATION POLICY OUTLOOK **GERMANY**



EDUCATION POLICY OUTLOOK

This **policy profile on education** in Germany is part of the new *Education Policy Outlook* series, which will present comparative analysis of education policies and reforms across OECD countries. Building on the substantial comparative and sectorial policy knowledge base available within the OECD, the series will result in a biennial publication (first volume in 2014). It will develop a comparative outlook on education policy by providing: a) analysis of individual countries' educational context, challenges and policies (education policy profiles) and of international trends and b) comparative insight on policies and reforms on selected topics.

Designed **for policy makers, analysts and practitioners** who seek information and analysis of education policy taking into account the importance of national context, the country policy profiles will offer constructive analysis of education policy in a comparative format. Each profile will review the current context and situation of the country's education system and examine its challenges and policy responses, according to six policy levers that support improvement:

- Students: How to raise outcomes for all in terms of 1) equity and quality and 2) preparing students for the future
- Institutions: How to raise quality through 3) school improvement and 4) evaluation and assessment
- System: How the system is organised to deliver education policy in terms of 5) governance and 6) funding.

Some country policy profiles will contain spotlight boxes on selected policy issues. They are meant to draw attention to specific policies that are promising or showing positive results and may be relevant for other countries.

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Authors: This country policy profile was prepared by Lorenz Klumpp (main drafter), Beatriz Pont, Diana Toledo Figueroa, Etienne Albiser, Désirée Wittenberg, Juliana Zapata and Sylvain Fraccola (statistics and design), from the Education Policy Outlook team, which is part of the Policy Advice and Implementation Division, led by Richard Yelland. Editorial support was provided by Lynda Hawe and Susan Copeland. This profile builds on the knowledge and expertise of many project teams across the OECD's Directorate for Education and Skills, to whom we are grateful.

Sources: This country profile draws on OECD indicators from the Programme for International Student Assessment (PISA), the Survey of Adult Skills and the annual publication *Education at a Glance*, and refers to country and thematic studies such as OECD work on early childhood education and care, teachers, school leadership, evaluation and assessment for improving school outcomes, equity and quality in education, governing complex education systems, vocational education and training, and tertiary education.

Most of the figures quoted in the different sections refer to Annex B, which presents a table of the main indicators for the different sources used throughout the country profile. Hyperlinks to the reference publications are included throughout the text for ease of reading, and also in the References and further reading section, which lists both OECD and non-OECD sources.

More information is available from the OECD Directorate for Education and Skills (www.oecd.org/edu) and its web pages on Education Policy Outlook (www.oecd.org/edu/policyoutlook.htm).

For further information, you are invited to contact the OECD's Education Policy Outlook Team (EDUPolicyTeam@oecd.org).



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HIGHLIGHTS

Germany's educational context

Students: Germany has become an above-average performer on PISA with significant improvement in reading and mathematics over the years, and the impact of socio-economic background on mathematics performance has decreased to slightly above the OECD average. Germany has a high proportion of children enrolled in early childhood education, while system-level policies such as early tracking (mostly at the age of 10) and a relatively high rate of grade repetition may hinder equity. The well-developed dual system, offering students both vocational and academic education, eases integration into employment. Tertiary graduation rates have increased recently, but are still below the OECD average. In the 2012 OECD [Survey of Adult Skills](#), adults in Germany have average skills proficiency levels compared to other participating countries, while younger adults score higher than other adults in Germany and around the average of young adults in participating countries. Labour market perspectives are positive compared to most OECD countries: unemployment rates are among the lowest across OECD and the proportion of 15-29 year-olds who are neither employed nor in education or training (NEET) is below average.

Institutions: In the context of large between-school variations in performance and different types of vocational and academic programmes, German students' views on learning environments are close to the OECD average. In recent years, school leaders have benefited from increasing autonomy and their use of instructional leadership approaches is above the OECD average, according to school principals' reports in PISA 2012. Teacher training takes between 5.5 and 6.5 years, and the teaching workforce is ageing. Teachers' salaries are among the highest across OECD countries. School supervisory authorities perform external school evaluation which is taken into account for implementation of school improvement measures. National standards for education and evaluation have been put in place to ensure comparability.

Governance and funding: Germany has a decentralised education system, with responsibilities shared between the Federation, the *Länder* and local authorities, and co-ordination ensured through several bodies. Schooling decisions are mainly made at the *Länder* level, while vocational education and training (VET) is a joint responsibility of the Federation and the *Länder*, with strong engagement of social partners. Investment in educational institutions is below the OECD average and has remained stable despite the economic crisis. Funding is provided mainly by public sources, with large contributions from the private sector in vocational secondary programmes.

Key policy issues

Germany faces challenges to support students with disadvantaged and migrant backgrounds and to continue reducing the impact of socio-economic background on student outcomes while raising performance in academic and VET provision. New initiatives in the field of teaching and teacher training are advisable to support school improvement, particularly in view of the high proportion of older teachers and the potential impact on teacher replacement and teacher training when they retire.

Recent policy responses

To improve equity and boost participation and success of students from disadvantaged backgrounds, the *National Integration Plan* (2007) was created and, in collaboration with civil society stakeholders, transformed into the [National Action Plan on Integration](#) (NAP-I) (2011). The [Recognition Act](#) (2012) facilitates the recognition of qualifications gained abroad for the professional integration of foreigners.

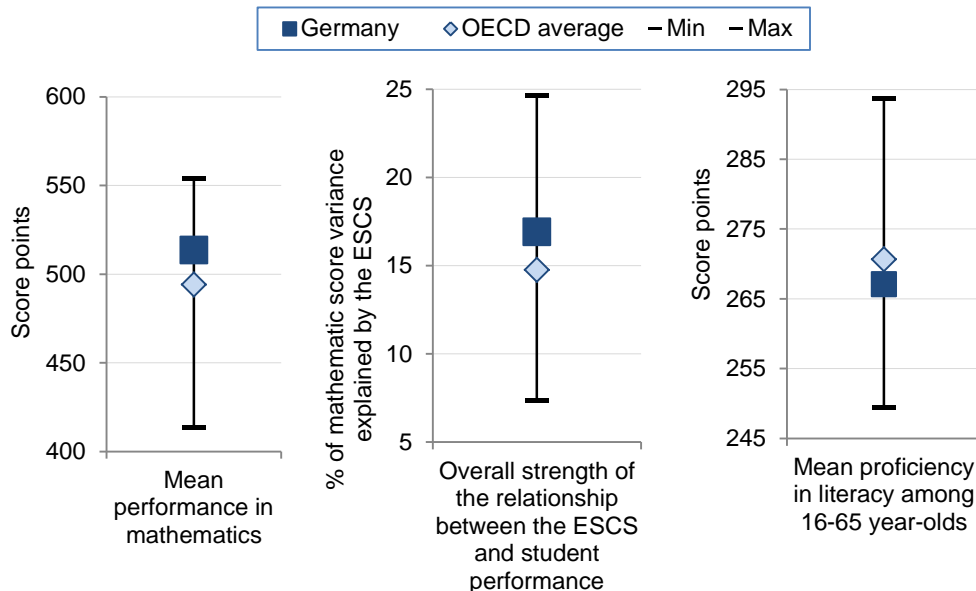
Efforts are being made to support school improvement through the [Quality Offensive in Teacher Training](#) (2013). The goal is to achieve sustainable improvement in the process of teacher training, including career entry and further learning. This policy also aims to contribute to an expanded recognition of course achievements and certificates throughout the country, offering more flexibility to students and teaching postgraduates.

In 2006, the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany (*Kultusministerkonferenz*, KMK) adopted a [comprehensive strategy for educational monitoring](#) including four interconnected areas: international comparative studies of student achievement, central review of achievement of educational standards (the basis for comparison between *Länder*), *Länder* comparisons of efficiency of individual schools, and joint education reporting. They are also further developing the use of educational standards.



Germany achieved above-average mathematics scores in PISA 2012, and its performance has improved significantly since 2000. Reading and science scores are also significantly above OECD average and have increased since PISA results in both 2000 and 2003. The impact of socio-economic status on mathematics scores has decreased compared to 2000, but is still slightly above the OECD average (Figure 1). Germany is one of only three OECD countries where both mathematics scores and equity indicators have improved since 2003.

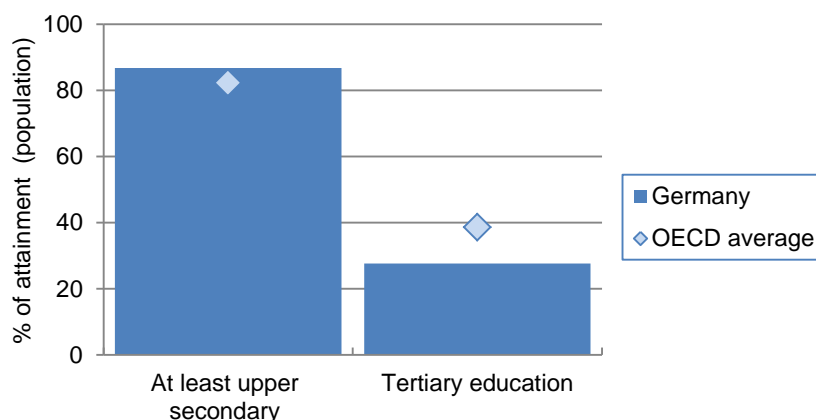
Figure 1. Performance of 15-year-olds in mathematics, relationship between student performance and economic, social and cultural status (ESCS) (PISA 2012) and performance of adults in literacy (PIAAC)



Source: OECD (2014), *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, PISA, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264208780-en>; OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264204256-en>.

Secondary education attainment in Germany is higher than the OECD average: 87% of 25-34 year-olds have attained at least secondary education (compared to the OECD average of 82%), while tertiary attainment is below the OECD average (28% compared to the OECD average of 39%) (Figure 2). An above-average proportion of 25-64 year-olds completed vocational upper secondary or post-secondary non-tertiary level education (55.8% compared to the OECD average of 33.5%).

Figure 2. Upper secondary and tertiary attainment for 25-34 year-olds, 2011



Source: OECD (2013), *Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2013-en>.



EQUITY AND QUALITY: RAISING EQUITY IN A DIVERSE POPULATION

Equity indicators show considerable improvement since 2000. Germany was an above-average performer in all areas examined in PISA 2012, including problem solving, and the share of low achievers in mathematics has decreased significantly (from 21.6% in 2003 to 17.7% in 2012, below the OECD average of 23%) (Figure 3). Equity has improved, as the impact of socio-economic factors on student performance is now only slightly above the average across OECD (Figure 1), although special population groups remain at lower proficiency levels.

Participation in early childhood education and care (ECEC) contributes to equity in education. About 90% of 3-year-olds and 96% of 4-year-olds were enrolled in early childhood education in 2011 (above the OECD average of 67% for 3-year-olds and 82% for 4-year-olds). Children aged 3-6 are entitled to a day-care facility since 1999, and since August 2013, parents have a right to day-care facilities or family day care for 1-2 year-olds, which may lead to increased provision by the federal government, the Länder and local authorities to improve the current coverage of 29.3% for under-3 year-olds.

System-level policies such as tracking, academic selection and grade repetition can still hinder equity. Education is compulsory from ages 6 to 18 in Germany (two years more than the OECD average). Tracking starts at an early age in most Länder (at age 10, compared to the OECD average of 14), and some Länder have strategies to limit its potentially negative effects on equity. In Hessen, for example, students can choose between 4-year and 6-year primary schools, and in Berlin and Brandenburg, all primary schools are comprehensive until grade 6 (age 12). Tracking and grouping are common in Germany: a majority of secondary students in PISA 2012 underwent a selection process to enter schools where student performance or recommendations from feeder schools were used as criteria, and ability grouping is also becoming more common (only 32% of students are in schools that do not do it, down from 54% in 2003). PISA also shows that between-school differences are strongly influenced by programme type. About 20% of 15-year-olds repeated at least one grade (8 points above the OECD average of 12%). Evidence across OECD countries in a [study of equity and quality in education](#) shows that grade repetition can be costly and is not an efficient practice to raise student learning performance.

Students with an immigrant background scored 25 points less in mathematics than native students in PISA 2012 (Figure 3). Only 13% of children under the age of 3 with an immigrant background attend day-care facilities in Western Germany, and one-third of children who do not speak German at home remain in day-care facilities where more than 50% of children do not use German within their families. Boosting their participation in education on all levels can contribute to raising overall equity and quality.

The challenge: Providing students from disadvantaged backgrounds with equitable educational opportunities and tackling early tracking and grade repetition.

Recent policies and practices

To delay early tracking, different Länder have adopted one or a combination of the following strategies: introducing comprehensive secondary schools that offer the range of qualifications (not in all Länder); postponing tracking from the age of 10 to 12 (e.g. Berlin, Brandenburg); merging the two lower-level tracks (*Realschule* and *Hauptschule*) into one school and improving the quality of education in these tracks; making tracks equivalent to allow students from all tracks to access any type of upper secondary education; and facilitating transitions between different tracks, including between academic and vocational tracks.

The National Integration Plan (2007), designed to achieve better recognition of qualifications in vocational education gained abroad, evolved into the [National Action Plan on Integration](#), implemented in 2011.

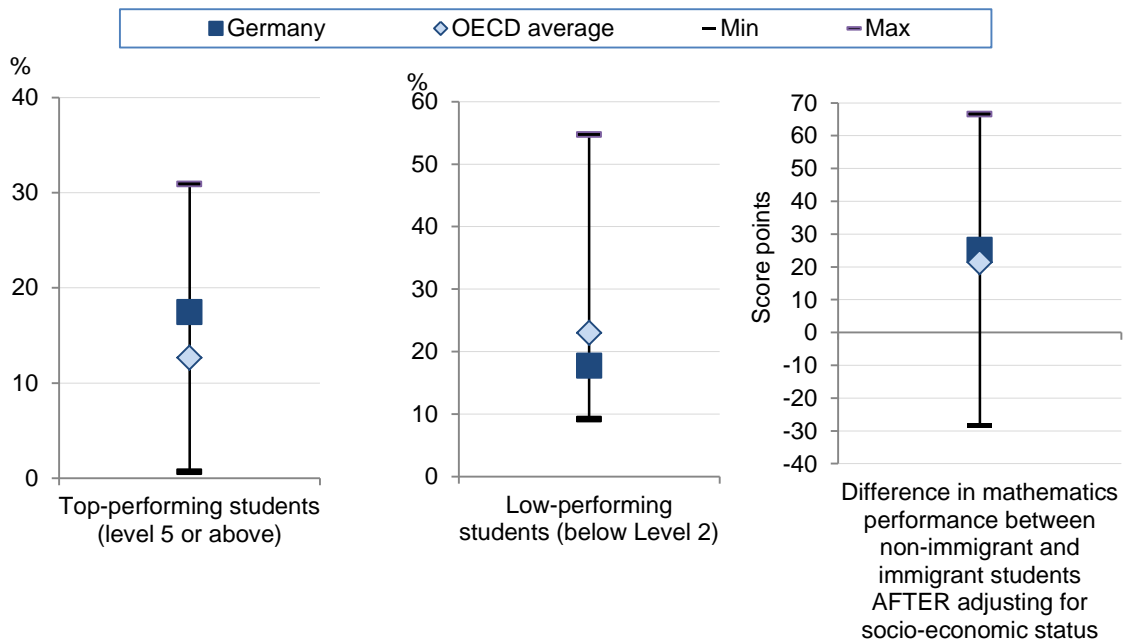
The Ministry of School and Further Education of North Rhine-Westphalia started an [initiative](#) in 2008 to reduce grade repetition in secondary schools by developing measures and concepts for individual support.

Other policies, such as the *BAföG* and the *Bildungsprämie* (grant and loan plans for education and training), focus on helping Germans to participate in education during or after their school years to promote lifelong learning (see Spotlight 3).

To provide support for extra-curricular activities, [Education Alliances](#) (2012) supports out-of-school programmes for students from disadvantaged backgrounds. Starting in 2013, the Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung*, BMBF) has allocated annual funding of EUR 30 million for this programme, to be increased up to EUR 50 million in the following four years. The [Bildungspaket](#) (by the Federal Ministry of Labour and Social Affairs, 2011) aims to give 2.5 million children from disadvantaged backgrounds the opportunity to participate in activities such as school excursions, sports, and musical and cultural activities to raise their motivation and sense of belonging.



Figure 3. Percentage of top and low performers and performance difference between non-immigrant and immigrant students in mathematics (PISA 2012)



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



PREPARING STUDENTS FOR THE FUTURE: A WELL-DEVELOPED SYSTEM OF VOCATIONAL EDUCATION AND TRAINING

The capacity of education systems to effectively develop **skills and labour market perspectives** can play an important role in the educational decisions of young people. In Germany, the national average skills level of adults (16-64 year-olds) is below the average for literacy among countries participating in the 2012 [Survey of Adult Skills](#) and above the average for numeracy. Young adults (16-24 year-olds) have, on average, higher skills proficiency levels than 25-64 year-olds in Germany, and their skills levels are at or above the average of their peers in other participating countries. Germany's unemployment rates are among the lowest across OECD countries (5.7% of 25-64 year-olds in 2011, compared to the OECD average of 7.1%), and Germany is the only OECD country where unemployment rates fell between 2008 and 2011 (in March 2013, unemployment was 5.4%, compared to the OECD average of 7.9%). Young people are well integrated in the labour market, and only 11% of 15-29 year-olds were not in education and not employed in 2011 (compared to the OECD average of 15.8%) (Figure 4). A strong VET system and pre-crisis [structural policies](#) to strengthen work incentives and improve matching of unemployed workers to jobs may help to explain this trend.

Germany has high **upper secondary education** attainment rates (87% of 25-34 year-olds, compared to the OECD average of 82% in 2011) (Figure 2). Half of those enrolled (49%) were in vocational programmes, with the majority (43%) in the dual system combining school-based and work-based education (compared to the OECD average of 12%). General upper secondary (*gymnasiale Oberstufe*) is offered by *Gymnasien* (academic high schools) and *Gesamtschulen* (comprehensive high schools). The upper secondary general school-leaving certificate (*Abitur*) is obtained after 12 or 13 years of education.

Germany has a well-established system of vocational education and training (VET). There is strong co-operation between educational institutions, employers and other social partners who also work together on adjusting curricula. VET is provided at upper secondary and post-secondary non-tertiary levels, and dual programmes are offered in more than 300 trades, with an exit exam for the dual system that does not count school performance. In 2011, employment rates of adults who attained vocational upper secondary level were 17 percentage points higher than for those who attained general programmes (compared to the OECD average gap of 5 percentage points). To support students with difficulties in making the step from compulsory education to regular VET, a transition system is available, but it lacks transparency and efficiency. One remaining challenge is to integrate youth from disadvantaged backgrounds (often migrants) who frequently end up outside regular VET. In addition, As shown in a recent [OECD review](#), very few VET graduates continue on to tertiary education programmes. Germany is implementing policies to provide students with capacity and stimulus for further learning (see Spotlight 1).

Tertiary education attainment in Germany is below the OECD average (Figure 2), as in other countries with strong dual systems. The percentage of 25-34 year-olds with academic tertiary-type A degrees is lower than the OECD average (18% compared to 30% in 2011). In 2011, 8% of tertiary-type A students were foreign, compared to the OECD average of 7%. This is due in part to low tuition fees and high potential for employment.

The challenge: Ensuring effective development of skills and completion of VET and tertiary education.

Recent policies and practices

The [JOBSTARTER](#) programme (2006, sixth round of funding started in 2012) funds innovative projects to help create additional traineeships and aims to support companies that lack experience in training. An [information campaign](#) (2011-13) was also launched to increase the attractiveness of dual VET and further occupational training.

New regulations (2009) allow a) youth with advanced vocational qualifications (e.g. graduates from trade and technical schools) to access academic higher education and b) holders of other vocational qualifications to access subject-specific higher education.

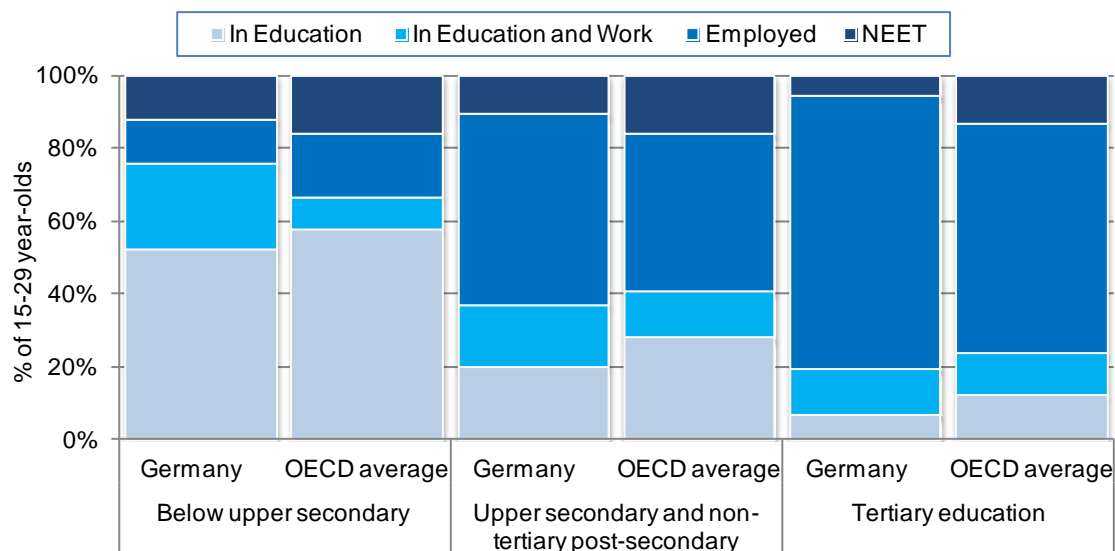
A [Higher Education Pact 2020](#) (*Hochschulpakt 2020*) between the Federation and the Länder will invest additional funds to expand study opportunities and meet the increasing demand for higher education. Funding is provided in comparable shares by the federal government (EUR 7 billion from 2011 to 2015) and the Länder.

The [Excellence Initiative](#) (*Exzellenzinitiative des Bundes und der Länder zur Förderung von Wissenschaft und Forschung an deutschen Hochschulen*, 2005) aims to promote top-level research and young researchers, and to enhance international competitiveness. Funding increased by 30% to about EUR 2.7 billion until 2017.

The [Recognition Act](#) (*Anerkennungsgesetz*, 2012) aims to facilitate recognition of qualifications gained abroad and the professional integration of foreigners.



Figure 4. Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status, 2011



NEET: Neither Employed, nor in Education and Training

Source: OECD (2013), *Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2013-en>.

Spotlight 1. Responding to the challenges in transitions from compulsory education to VET

The dual vocational system is a pillar of education in Germany that contributes to above-average attainment rates in upper secondary education. It offers students both knowledge and practical skills: students in the dual system typically spend 3-4 days per week in a training firm and 1-2 days at school. The strengths of the dual system may also explain low unemployment rates. Some pending issues remain in the transition from compulsory education to VET, as well as from VET to tertiary pathways. The government has implemented a number of initiatives to tackle these challenges, including the following:

- The *National Pact for Career Training and Skilled Manpower Development in Germany* (2004, extended until 2014) aims to provide in-company training as well as additional efforts from the public sector in VET. New partners were added, including the Standing Conference of Ministers of Education and Cultural Affairs (*Kultusministerkonferenz, KMK*) and the Federal Government Commissioner for Migration, Refugees and Integration. Their goals are to improve the maturity of students in two strands of lower secondary schools (*Hauptschule* and *Realschule*) and to provide young people in the transition system with qualification opportunities leading to career prospects.
- The *Education Chains* initiative (*Bildungsketten*, 2010) provides preventive support, starting at grade 7 with a vocational orientation programme, to create job prospects, avoid early dropout and ensure a better transition into VET and into the labour market. *VerA*, a programme within the framework of Education Chains, was created to prevent dropout in vocational education. Under this programme, experienced older people are engaged to provide guidance to young people. The federal government, the federal employment agency and the Länder are developing a concept which collects exemplary activities and initiatives in a coherent framework in order to improve success in transitions.



SCHOOL IMPROVEMENT: PROFESSIONAL TEACHERS AND GREATER AUTONOMY IN LEADERSHIP

The key to raising achievement is developing the conditions for schools, school leaders and teachers to succeed. In Germany 37 900 public and 5 500 private schools (school year 2011/12) offer different types of programmes for academic or vocational education starting in lower secondary education, and there is a large variation in performance between schools. In PISA 2012, German students' views on learning environments for teacher-student relations or classrooms being conducive to learning were around the OECD average, indicating some improvements since 2003 (Figure 5). In 2011/12, 54.3% of all primary and lower secondary schools were all-day schools (*Ganztagsschulen*), attended by 30.7% of students. There is also a large proportion of schools with relatively shorter school days, where the annual number of hours taught is lower than the OECD average. The proportions vary across the Länder (in Saxony, 96.7% of primary and lower secondary schools are all-day schools, compared to 28.6% in Baden-Württemberg) and across different types of schools (26.3% of primary school students and 24.6% of students in *Gymnasien* are in all-day schools, compared to 73.8% at *Gesamtschulen* or 36.7% at *Hauptschulen*).

School leaders' roles and responsibilities differ across the Länder, but generally include staff and budget management, external relations, teacher appraisal and the development of a school-specific profile. Principals often carry out teaching duties, and their salaries depend on the size of the school. In recent years, school leaders have benefited from increased autonomy with regard to school budgets, staffing decisions and programmes and, according to PISA 2012, they focus more on instructional leadership tasks than the OECD average.

Germany's **teachers** have the longest pre-service teacher training among all PISA 2012 countries, with high salaries and an ageing teaching force. After obtaining a compulsory tertiary degree, teachers undergo a competitive examination to enter pre-service teacher training at primary and secondary education levels. This training lasts between 5.5 and 6.5 years depending on the level. Teachers in public schools are typically civil servants employed by the Länder, with statutory salaries among the highest across OECD (starting salaries for primary education teachers of USD 47 488, compared to the OECD average of USD 28 854 in 2011). It will be a challenge to ensure an adequate teacher supply for the future, as the percentage of older teachers in primary and secondary schools is higher than the OECD average, with large differences between the Länder. Since 2000, there has been a sustained increase in the number of teaching hours per year for teachers (generally above the OECD average). In 2011, upper secondary teachers taught 715 hours per year compared to the OECD average of 664 hours.

The challenge: Ensuring high teacher quality across the Länder and succession planning to replace retiring teachers.

Recent policies and practices

In 2013, the Federal State and the Länder agreed on the [Quality Offensive in Teacher Training](#) initiative (2014-18 and 2019-23) to improve teacher training and expand recognition of courses and certificates throughout the country. Additionally, the Länder adopted [rules and proceedings for more mobility and quality for teachers](#) (2013) to promote recognition of certificates in teacher training.

The Standing Conference of Ministers of Education and Cultural Affairs (KMK) provided [recommendations for students' suitability](#) (2013) to become teachers, including information, advice and feedback at all stages of training and after graduation. The KMK also agreed on [common guidelines to meet the demand for teachers](#) (2009). In 2013, it published a model calculation combining an estimate of the upcoming demand for teachers with a forecast of students completing the Second State Examination.

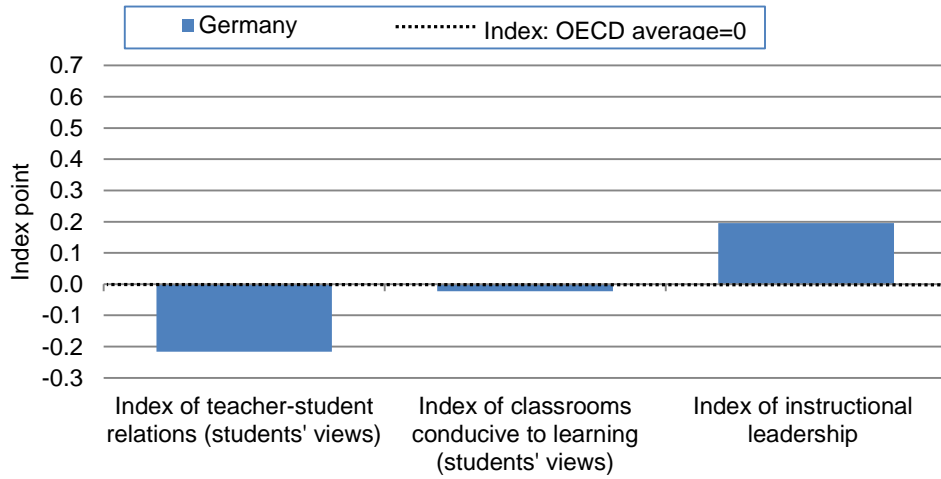
The [Quality Pact for Teaching](#) (*Qualitätspakt Lehre*, 2010) aims to improve study conditions and quality of teaching in public higher education institutions. The Federation will provide EUR 2 billion between 2011 and 2020, and 77% of publicly maintained institutions benefit from the support.

The [Quedlinburger Resolution](#) (2005) includes voluntary guidelines for the acceptance and accreditation of bachelor's and master's programmes in teacher qualifications, the master's degree typically replacing the First State Examination, while the Second State Examination is taken after probationary service.

Subject-specific requirements valid for all Länder include the Standards for Teacher Training in the Educational Sciences (*Standards für die Lehrerbildung: Bildungswissenschaften*, 2004) and the Content Requirements for Subject-Related Studies and Subject-Related Didactics in Teacher Training (2008).



Figure 5. The learning environment (PISA 2012)



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



EVALUATION AND ASSESSMENT TO IMPROVE STUDENT OUTCOMES: COMBINING EXTERNAL AND SELF-EVALUATION

Evaluation and assessment frameworks exist in each of the 16 Länder, and the Standing Conference of Ministers of Education and Cultural Affairs (KMK) aims to provide an overarching strategy. State supervisory authorities, statistical surveys carried out by the Federal Statistical Office and the Statistical Offices of the Länder, as well as educational research in subordinate institutes all contribute to system evaluation.

School supervisory authorities and institutes for school pedagogy contribute to **system evaluation** by assisting education authorities and recommending changes. Accompanying research examines the effectiveness of reforms and conditions for implementation. The Federal Government and the Länder may mutually agree to co-operate on international comparative studies and drafting relevant reports. Subnational comparisons are also used to monitor the system. Education reporting exists at the national and Länder levels, including on specific issues such as migration or VET.

Germany has a highly structured legal framework for external **school evaluation**. School supervisory authorities and, in some Länder, institutes for school pedagogy are responsible for academic supervision carried out by school inspectors. They control adherence to curricula and other legal provisions. Evaluation coverage is similar across the Länder, and there is sharing of knowledge between Länder. Self-evaluation has been initiated, but, contrary to most other OECD countries, it is not a component of external evaluation.

Legal regulations for **teacher appraisal** vary across the Länder, with teacher unions involved in some Länder. Appraisal results can affect career advancement and changes in responsibilities, but they do not affect pay levels. Teachers are appraised mainly at early career stages. More regular evaluations, as carried out in some Länder, can contribute to improve the status of the profession status and the quality of teaching. However, external evaluation is often perceived as a means of disqualifying underperformers.

Regular assessment of **student** achievement is a key element of the comprehensive strategy for educational monitoring adopted by the KMK. Overall educational standards are set in primary and secondary education, mainly in mathematics, German, English and French. In 2008, the Länder created comparative examinations to provide nationwide grade-based evaluation in grade 3 (primary) and grade 8 (secondary). In recent years, most Länder introduced the Zentralabitur (central upper secondary school leaving examination) to ensure comparability of demands and results.

The challenge: Continuing to develop an overarching strategy for evaluation and assessment.

Recent policies and practices

After developing a [comprehensive strategy for educational monitoring](#) in 2006 (see Spotlight 3), the KMK adopted a [concept for the use of educational standards for the development of schooling](#) in 2009. It focuses on recent Länder experiences with educational standards and brings together different measures for implementation.

The teacher-appraisal system in Hamburg looks for untapped potential. Counsellors have to verify and document whether the teacher has skills or competencies that are not being used but could be used in school development or management duties within the school.

The [Quality Analysis in North Rhine-Westphalia](#) initiative (2007) aims to ensure quality in schools. It includes six indicators: results of the school, teaching and learning, school culture, leadership and management, professionalism of teaching staff and objectives of quality development.

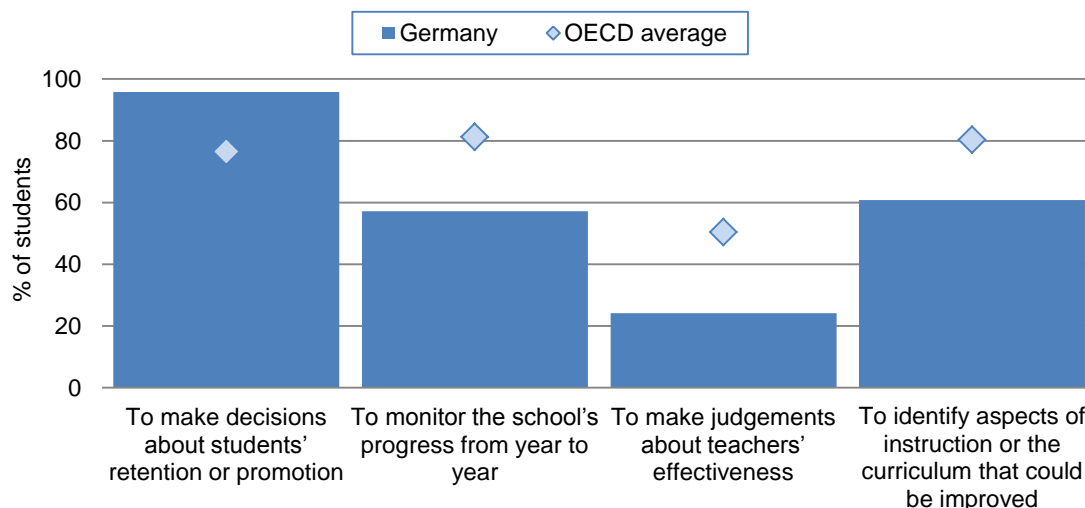
[DECVET](#) (2007) aims to create a classification system to measure learning efficiency in VET. The goal is to tackle deficiencies in transparency and permeability (crossover mobility between different tracks).

In the context of the [European Qualifications Framework](#), Germany established the [German Qualifications Framework](#) (2013) to create appropriate measures for assessment and comparability of German qualifications in Europe. Qualifications are classified in levels in order to achieve a reference framework.

The national programme [Local Learning](#) (*Lernen vor Ort*, 2009) brings together education experts from counties and urban municipalities and more than 180 foundations to develop integrated data-based education management on a local level. Funding is provided by the Federation and the European Social Fund.



Figure 6. Percentage of students in schools where the principal reported assessments of students in national modal grade for 15-year-olds (PISA 2012)



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

Spotlight 2. Setting goals for educational monitoring

To achieve higher levels of attainment in Germany, the Standing Conference of Ministers of Education and Cultural Affairs (KMK) adopted a [comprehensive strategy for educational monitoring](#) (2006), including four interconnected areas:

- participation in international comparative studies of student achievement
- central review of the achievement of educational standards which are the basis for comparison between Länder
- comparative studies within the Länder in order to review the efficiency of individual schools
- joint education reporting by the Federation and the Länder.

The KMK has established [educational standards](#), and a number of institutes were founded to develop and ensure quality in secondary and tertiary education:

- The [Institute for Educational Quality Improvement](#) (IQB, 2007) is responsible for national comparative studies in primary and secondary education. It verifies whether binding standards are fulfilled and it helps the Länder with developing and implementing these standards (e.g. by designing test exercises).
- The [Leibniz Institute for Educational Trajectories](#) promotes longitudinal studies in educational research. Its objective is to provide fundamental, transregional, and internationally significant scientific, research-based infrastructure for educational research, especially by overseeing and implementing the National Educational Panel Study (*Nationales Bildungspanel*, NEPS).
- The [Centre for International Student Assessment](#) (ZIB, 2010) was founded by the Federal Ministry of Education and Research and KMK. It consists of three united institutes which carry out international education research in the area of large-scale assessments.
- In 2005, the [Accreditation Council](#) for higher education was established. Its task is to organise the system of quality assurance in learning and teaching in tertiary education and to accredit study programmes.



GOVERNANCE: SHARED RESPONSIBILITIES BETWEEN FEDERATION AND LÄNDER

In Germany, responsibility for the **education system** is shared between the 16 Länder and the federal government. Unless the Basic Law (*Grundgesetz*) awards legislative powers to the Federation, the Länder have the right to legislate. Länder have their own education ministries and are responsible for schools, higher education, adult education and continuing education. Co-ordination between them is ensured by several bodies. The Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (*Kultusministerkonferenz*, KMK) co-ordinates education policies and makes recommendations for further developments in the area of primary and secondary education, higher education, research and cultural policy. At the national level, the Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung*, BMBF) steers nation-wide policies for VET, tertiary education and foreign affairs within education. The following other bodies shape education policy:

- The [Joint Science Conference](#) (*Gemeinsame Wissenschaftskonferenz*, GWK) deals with research funding, science and research policy strategies, and the science system. The [German Council of Science and Humanities](#) (*Wissenschaftsrat*) issues recommendations on the content and structural development of higher education, science and research.
- The [German Rectors' Conference](#) (*Hochschulrektorenkonferenz*, HRK), is a voluntary association of 267 state and state-recognised universities in Germany which deals with topics related to higher education.
- The [Federal Institute for Vocational Education and Training](#) (*Bundesinstitut für Berufsbildung*, BiBB) is a federal government institution for policy, research and practice in VET. It is a major instrument for co-operation between employers, trade unions, Federation and the Länder at the national level.
- Other ministries, such as the Federal Ministry of Labour and Social Affairs (*Bundesministerium für Arbeit und Soziales*, BMAS), collaborate with BMBF on labour market and equity issues. The Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (*Bundesministerium für Familie, Senioren, Frauen und Jugend*, BMFSFJ), together with the corresponding Länder ministries, is responsible for instruction, education and care of children in day-care centres and in child-minding services.
- Stakeholders, including teachers under the umbrella of their unions (*Gewerkschaft Erziehung und Wissenschaft* and *Deutsche Beamtenbund*), influence policy-making.

While the national level has a comparably high share of decisions (Figure 7), **most education decisions** for schools and higher education sectors as well as in adult education and continuing education are made at **Länder level**. Länder responsibilities include organisation, planning, management and supervision of the entire school system, detailed regulation of the schools' mission, personnel recruitment, and remuneration of teachers in schools and universities. Delivery of VET is organised and supervised at the national level, with strong engagement by social partners, except for part-time VET schools in the dual system and full-time VET schools, both of which are a Länder responsibility.

Local authorities (*Kommunen*) are in charge of adult education and also responsible for construction and maintenance of day-care centres and school buildings. **Autonomy of schools** has decreased in recent years as some of the decisions were transferred from school level to local or sub-regional level. The percentage of decisions made in lower secondary schools decreased from 31% in 2003 to 23% in 2011, below the OECD average of 40%. Decision-making for the organisation of instruction, including grouping of pupils, choice of textbooks and assessment of pupils' regular work, lies mainly with the schools (78%).

Financing, governance and management of **higher education** institutions are regulated by the Länder. The universities are usually incorporated in the state administration. Course accreditation is guaranteed by the [Foundation for the Accreditation of Study Programmes in Germany](#). In 2013, 114 out of 391 institutions were under private sponsorship and 41 were run by churches.

The challenge: Setting national priorities while responding to *Länder* needs.

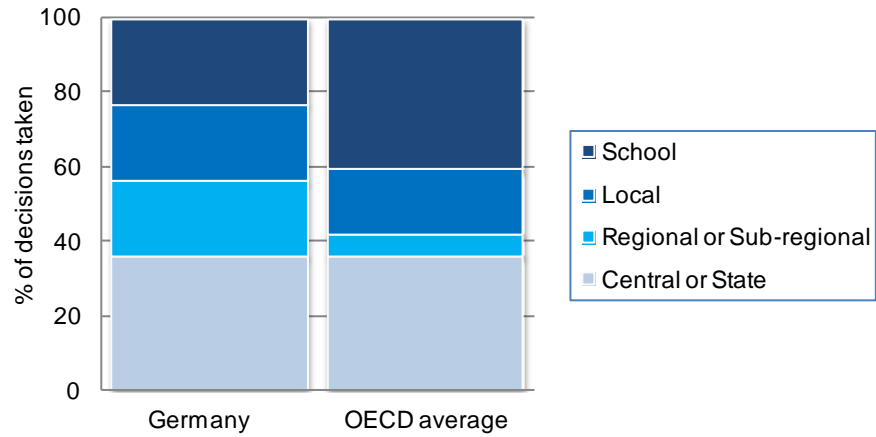
Recent policies and practices

The Federation has legislative competence in status rights and duties of civil servants as well as in foreign affairs. This is laid down in the [Status of Civil Servants Act](#) (*Beamtenstatusgesetz*, 2009).

The joint areas of responsibilities between the Länder and the Federation are set out in an administrative agreement.



Figure 7. Percentage of decisions taken in public lower secondary schools at each level of government, 2011



Source: OECD (2012), *Education at a Glance 2012: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2012-en>.



FUNDING: MAINLY PUBLIC SOURCES BUT PRIVATE SECTOR INVOLVEMENT FOR VOCATIONAL EDUCATION

Germany's **investment in educational institutions** at all levels was 5.3% of GDP in 2009, below the OECD average of 6.2% (Figure 8). Between 2000 and 2009, expenditure on education increased by 0.4 percentage points of GDP (below the OECD average of 0.9 percentage points). Most expenditure on educational institutions is from public sources (85.9% in 2010, close to the OECD average of 83.6%). The share of private expenditure was 14.1% for all levels of education in 2010 (slightly below the OECD average of 16.4%).

Annual expenditure per student is lower than the OECD average on primary education (USD 7 079 in 2010, compared to the OECD average of USD 7 974), but higher in secondary education (USD 9 667 in 2010, compared to USD 9 014) and at the tertiary level (USD 16 053 in 2010, compared to USD 13 528). Due to large contributions from the private sector, expenditure per student in vocational secondary programmes was USD 13 028 in 2009, compared to the OECD average of USD 9 534. Since 2000, expenditure per student increased by around 14% in primary, secondary and post-secondary non-tertiary education, while enrolment decreased slightly in 2009. Over the same years, expenditure per tertiary student increased by 8% while enrolment increased by around 16% (compared to OECD average increases of 15% in expenditure per tertiary student and 24% in enrolment). Differences in expenditure across Länder (e.g. over one-third more per student in Thuringia than in Schleswig-Holstein) can be attributed to individual educational structures of the Länder: teacher remuneration, teaching hours and demographic trends.

Public primary and secondary schools are free of charge. **Funding responsibilities for public schools** are divided between the Länder (for recruitment and remuneration of teachers) and local authorities (typically for non-teaching staff and material costs). A few Länder support local authorities through lump-sum allocations (such as for school construction). The Länder can take over responsibilities from local authorities for special schools. In 2009, the Länder covered 72.2% of expenditure in primary, secondary and post-secondary non-tertiary education (both public and private). Local authorities covered 17.5% and the federal level 10.3%. Out-of-school education in the dual system is largely funded by companies, whereas vocational schools are funded by the Länder. Private schools receive financial support from the Länder based on lump-sum allocations, and they also receive aid from local authorities.

The Länder are responsible for **funding of higher education institutions**. Funding comes mostly from public sources, with 87% covered by the Länder and 13% by the Federation (2009). Further funding is provided by organisations concerned with the promotion of research, such as the German Research Foundation. Higher education institutions also receive funds from companies for research and development work. The relationship between governments and universities is increasingly marked by target setting and performance requirements. Higher education institutions have gained autonomy in financial action to reach the defined goals. Tuition fees have been abolished in most Länder, with Lower Saxony the last Land to drop fees in autumn 2014.

During the crisis, **funding measures** were implemented to ensure investment in education. Expenditure by the Federation and the Länder, additional investments in the framework of stimulus packages (*Konjunkturpaket II*, 2009-2011) and the decline of GDP in 2009 contributed to an increase of the share devoted to education, research and science.

The challenge: Continuing to ensure investment in education, focusing on policies that help bring greater equity to the system.

Recent policies and practices

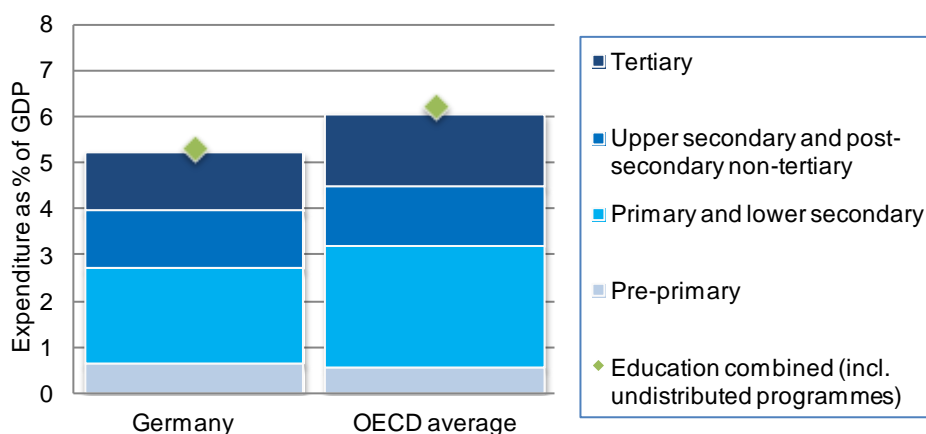
Within the framework of the *Konjunkturpaket II* (2009) the *Investing in the Future Act* (*Zukunftsinvestitionsgesetz*) was adopted. Between 2009 and 2011, EUR 8.7 billion were made available for early childhood education, school and university infrastructure, local facilities for further learning and for research.

A federal investment programme, *The Future of Education and Care* (2003-09), aimed to further develop all-day schools. EUR 4 billion were provided to 8 262 schools. Objectives included improving quality of schools and teaching, and decoupling social background and competence acquisition. More than 50% of total support was invested in primary schools. The Länder continue to support all-day schools with their own programmes.

Since the *Federalism Reform I* (2006), the Länder are fully responsible for construction of higher education institutions. The goal is to clarify the distribution of roles in federal relations and to modernise the federal system.



Figure 8. Expenditure on educational institutions as a percentage of GDP, by level of education, 2009



Source: OECD (2012), *Education at a Glance 2012: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2012-en>.

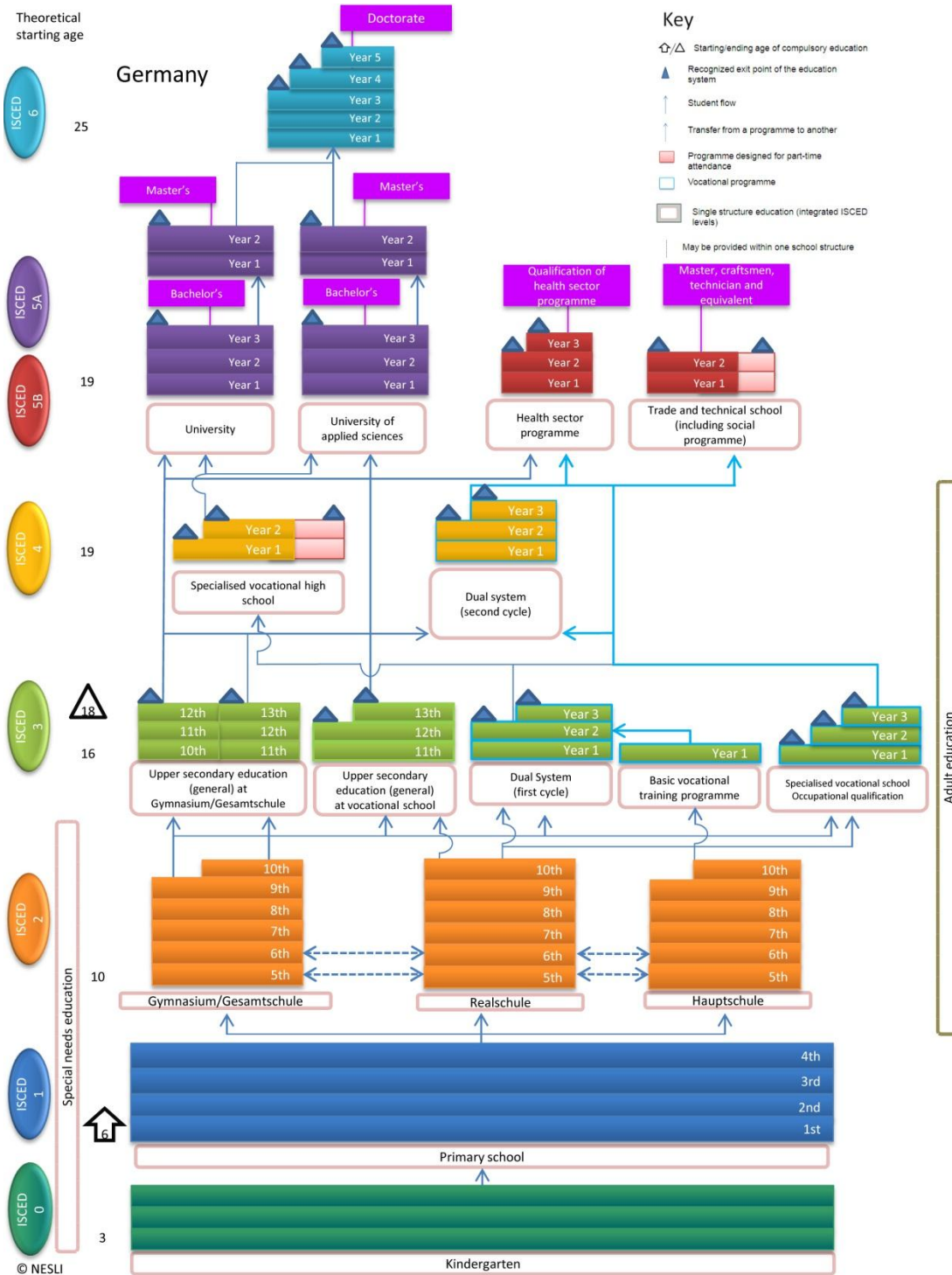
Spotlight 3. Providing support during or after school for lifelong learning

BAföG (*Bundesausbildungsförderungsgesetz*, Federal Training Assistance Act) is a law introduced in 1971 and amended for the last time in 2010 that grants aid to students enrolled in general education (*Schüler-BAföG*), VET programmes and tertiary education. Students have to apply for support and receive a monthly benefit depending on their parents' income and other indicators. Since its inception, more than four million tertiary students have benefitted from BAföG. In 2012, nearly one million young people received BAföG and the tendency is rising. A similar system was introduced in 1996 for the continued education of professionals (*Meister-BAföG*). The BMBF publishes regular reports on *BAföG*.

More recently, the *Bildungsprämie* programme targets employees who wish to participate in further learning but cannot enroll in a course for financial reasons. It started in 2008 and will run through 2017. Between 2008 and October 2013, about 230 000 persons benefitted from the programme. It is jointly funded by the Federal Ministry of Education and Research and the European Social Fund.



ANNEX A: STRUCTURE OF GERMANY'S EDUCATION SYSTEM



Note: The figure is based on the 1997 ISCED classification.



ANNEX B: STATISTICS

#	List of key indicators ^{1,2,3}	Germany	Average or total	Min OECD	Max OECD
Background information					
<i>Political context</i>					
1	Public expenditure on education as a percentage of GDP, 2010 (EAG 2013)	m	5.8%	3.8%	8.8%
<i>Economy</i>					
2	GDP per capita, 2010, in equivalent USD converted using PPPs (EAG 2013)	37 661		15 195	84 672
3	GDP growth 2011 (OECD National Accounts)	0.7%	1.5%	-6.4%	5.6%
<i>Society</i>					
4	Population density, inhab/km ² , 2010 (OECD Statistics)	229.0	138	2.9	492
5	Population aged less than 15 as a percentage of total population, 2010 (OECD Factbook 2011)	13.6%	17.3%	13%	28.1%
6	Foreign-born population as a percentage of total population, 2009 (OECD Factbook 2011)	12.9%	14.1%	0.8%	36.9%
Education outcomes					
7	Mean performance in mathematics (PISA 2012)	514	494	413	554
8	Annualised change in mathematics performance across PISA assessments (PISA 2012) ⁴	1.4	-0.1	-3.3	4.2
9	Annualised change in reading performance across PISA assessments (PISA 2012) ⁴	1.8	0.0	-2.8	4.1
10	Annualised change in science performance across PISA assessments (PISA 2012) ⁴	1.4	1.0	-3.1	6.4
11	Enrolment rates of 3-4 year-olds in early childhood education and primary education, 2011 (EAG 2013)	92.7%	74.4%	11.6%	98%
12	% of 25-64 year-olds whose highest level of attainment is lower secondary education or below, 2011 (EAG 2013)	14%	25%	7%	68%
13	% of 25-34 year-olds whose highest level of attainment is at least upper secondary education, 2011 (EAG 2013)	87%	82%	43%	98%
14	% of 25-34 year-olds whose highest level of attainment is tertiary education, 2011 (EAG 2013)	28%	39%	19%	64%
15	% of 25-64 year-olds whose highest level of attainment is vocational upper-secondary or post-secondary non-tertiary education, 2011 (EAG 2013)	55.8%	33.5%	8.4%	73.9%
Unemployment rates of 25-64 year-olds by educational attainment, 2011 (EAG 2013)					
16	Below upper secondary	13.9%	12.6%	2.7%	39.3%
	Upper secondary and post-secondary non-tertiary	5.8%	7.3%	2.2%	19.2%
	Tertiary education	2.4%	4.8%	1.5%	12.8%
Students: Raising outcomes					
<i>Policy lever 1: Equity and quality</i>					
17	First age of selection in the education system (PISA 2012)	10	14	10	16
Students performing at the highest or lowest levels in mathematics (%), (PISA 2012).					
18	Students performing below Level 2	17.7%	23%	9.1%	54.7%
	Students performing at Level 5 or above	17.5%	12.6%	0.6%	30.9%
19	<i>Variance in mathematics performance between schools and within schools as a percentage of the OECD average variance in mathematics performance (PISA 2012)</i>				
	Between schools percentage of variance	58%	37%	6%	65%
	Within schools percentage of variance	51%	63%	34%	90%
20	% of students reporting that they have repeated at least a grade in primary, lower secondary or upper secondary schools (PISA 2012)	20.3%	12.4%	0%	36.1%



#	List of key indicators	Germany	average or total	Min OECD	Max OECD
21	Percentage of variance in mathematics performance in PISA test explained by ESCS (PISA 2012) ⁴	16.9%	14.8%	7.4%	24.6%
22	Score difference in mathematics performance in PISA between non-immigrant and immigrant students AFTER adjusting for socio-economic status (PISA 2012) ⁴	25	21	-29.0	66.0
23	Score differences between boys and girls in mathematics (PISA 2012) ⁴	14	11	-6	25
<i>Policy lever 2: Preparing students for the future</i>					
Adjusted mean proficiency in literacy among adults on a scale of 500 (Survey of Adult Skills, 2012)					
24	Among 16-65 year-olds (adjusted)	267.1	270.7	249.4	293.6
	Among 16-24 year-olds (adjusted)	277.7	278.0	260.0	297.0
Upper secondary graduation rates in % by programme of orientation, 2011 (EAG 2013)					
25	General programmes	46%	50%	18%	82%
	Pre-vocational/ vocational programmes	47%	47%	4%	99%
26	Average annual growth rate of upper secondary graduation between 1995-2011 (EAG 2013)	m	0.6%	-1%	3.6%
First-time graduation rates (2011) and average annual growth tertiary education graduation (1995-2011)					
27	Graduation rate tertiary-type A (general programme)	31%	40%	21%	60%
	Graduation rate tertiary-type B (technical programme)	14%	11%	0%	29%
	Average annual growth rate tertiary-type A	4.8%	4%	-1%	11%
	Average annual growth rate tertiary-type B	m	0%	-20%	14%
28	% of 15-29 years-old not in education, employment or training, 2011 (EAG 2013)	11%	15.8%	6.9%	34.6%
Institutions: Improving schools					
<i>Policy lever 3: School improvement</i>					
29	Mean index of teacher-student relations based on students' reports (PISA 2012)	-0.22	0.00	-0.42	0.47
30	Mean index of disciplinary climate based on students' reports (PISA 2012)	-0.02	0.00	-0.33	0.67
% of teachers below the age of 40 by education level, 2011 (EAG 2013)					
31	Primary education	28.8%	41%	15%	60%
	Lower secondary education	25.2%	39%	11%	56%
	Upper secondary education	25.2%	34%	7%	47%
Number of teaching hours per year in public institutions per education level, 2011 (EAG 2013)					
32	In primary education	804	790	589	1 120
	In lower secondary education	757	709	415	1 120
	In upper secondary education	715	664	369	1 120
Ratio of teachers' salaries to earnings for full-time, full-year adult workers with tertiary education, 2011 (EAG 2013)					
33	In primary education	0.92	0.82	0.44	1.34
	In lower secondary education	1.01	0.85	0.44	1.34
	In upper secondary education	1.09	0.89	0.44	1.40
34	Growth rate of teachers' salaries between 2000 and 2011 in lower secondary education, (EAG 2013)	m	16%	-9%	103%
35	% of lower secondary education teachers reporting impact of appraisal/feedback on their knowledge or understanding of their main subject field(s) (TALIS 2008)	NP	33.9%	10.9%	69.1%
36	% of teachers who wanted to participate in more development than they did in the previous 18 months, 2007-08 (TALIS 2008)	NP	55%	31%	85%



#	List of key indicators	Germany	average or total	Min OECD	Max OECD
<i>Policy lever 4: Evaluation and assessment to improve student outcomes</i>					
	% of students whose school' principals reported that assessments are used for the following purposes (PISA 2012)				
37	To make decisions about students' retention or promotion	95.8%	76.5%	1.5%	98.2%
	To monitor the school's progress from year to year	57.2%	81.2%	48%	100%
	To make judgements about teachers' effectiveness	24.2%	50.4%	14%	88.2%
	To identify aspects of instruction or the curriculum that could be improved	60.8%	80.3%	49.4%	99.4%
	% of lower secondary education teachers reporting appraisal/feedback on their work with this frequency, 2007-08 (TALIS 2008)				
38	Once every two years or less	NP	35.8%	13.8%	65.6%
	At least once per year	NP	52.2%	27.6%	68.6%
	Monthly or more than once per month	NP	12%	3.3%	29.8%
Systems: Organising the system					
<i>Policy lever 5: Governance</i>					
	% of decisions taken at each level of government in public lower secondary education, 2010 (EAG 2012)				
39	Central or state government	36%	36%	0%	87%
	Regional or sub-regional government	20%	6%	0%	36%
	Local government	21%	17%	4%	100%
	School government	23%	41%	5%	86%
<i>Policy lever 6: Funding</i>					
	Annual expenditure per student by educational institutions, for all services, in equivalent USD converted using PPPs for GDP, 2010 (EAG 2013)				
40	Pre-primary education	7 896	6 762	2 280	20 958
	Primary education	7 079	7 974	1 860	21 240
	Secondary education	9 667	9 014	2 470	17 633
	Tertiary education	16 053	13 528	6 501	25 576
	Relative proportions of public and private expenditure on educational institutions, 2010 (EAG 2013)				
41	Public sources	85.9%	83.6%	57.9%	97.6%
	All private sources	14.1%	16.4%	2.4%	42.1%
	Index of change in expenditure on educational institutions, public sources, (constant prices, 2000=100)	118	136	100	195
	Index of change in expenditure on educational institutions, all private sources, (constant prices, 2000=100)	120	211	104	790
Notes					
1. The average, total, minimums and maximums refer to OECD countries except in TALIS and the Survey of Adult Skills, where they refer to participating countries.					
2. "m": included when data is not available.					
3. "NP": included if the country is not participating in the study.					
4. Statistically significant values of the indicator are shown in bold.					



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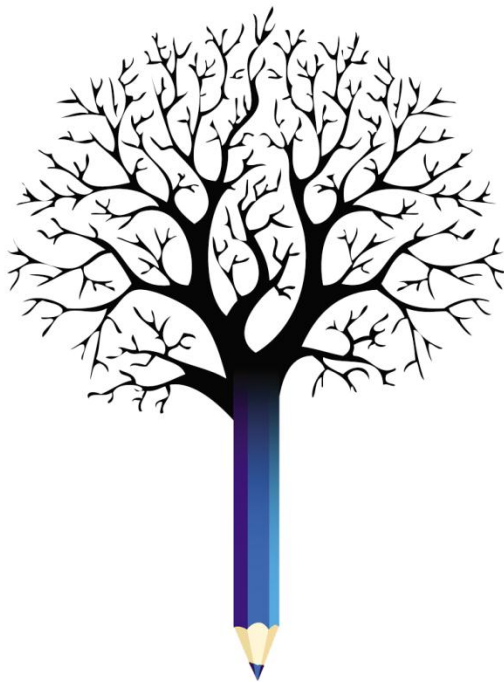
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