Indicator B2. How do early childhood education systems differ around the world?

Highlights

- Early childhood education and care (ECEC) is crucial for children's learning, development and well-being as well as for their parents' ability to return to work. On average, 18% of children under 2 and 43% of 2-year-olds were enrolled in ISCED 0 programmes in 2021 but other ECEC services also play a significant role. In Japan, 26% of children under 2 and 53% of 2-year-olds are enrolled in ECEC services outside ISCED 0.
- Women dominate the early childhood education and care (ECEC) workforce. Across all OECD countries with available data, 96% of pre-primary teachers are women.
- Expenditure per child increased by an annual 3% on average across OECD countries between 2015 and 2020. Annual expenditure per child fell in only a handful of countries, including Ireland, where expenditure per child (on all early childhood education - ECE programmes - rather than just pre-primary ones) fell at an annual rate of 4% as a result of the rising number of children.

Context

Policy makers are increasingly aware of the key role that early childhood education and care (ECEC) plays in children's cognitive and emotional development, learning and well-being. Children who participate in high-quality organised learning at an early age are more likely to have better education outcomes when they grow older. This is particularly true for children from disadvantaged socio-economic backgrounds, because they often have fewer opportunities to develop these abilities in their home learning environments (OECD, 2017[1]). However, survey results show that less than two-thirds of pre-primary education staff receive training on working with children from diverse backgrounds (e.g. multicultural, economically disadvantaged, religious) (Box B2.2).

Affordable and accessible ECEC makes it easier for parents to take on employment and contribute to economic prosperity and growth. The increasing number of women entering the labour market has heightened governments' interest in expanding ECEC services. High-quality ECEC services and other provisions can improve parents' work-life balance by providing them with greater opportunities to enter employment and combine work and family responsibilities (OECD, 2018[2]; 2011[3]; 2016[4]).

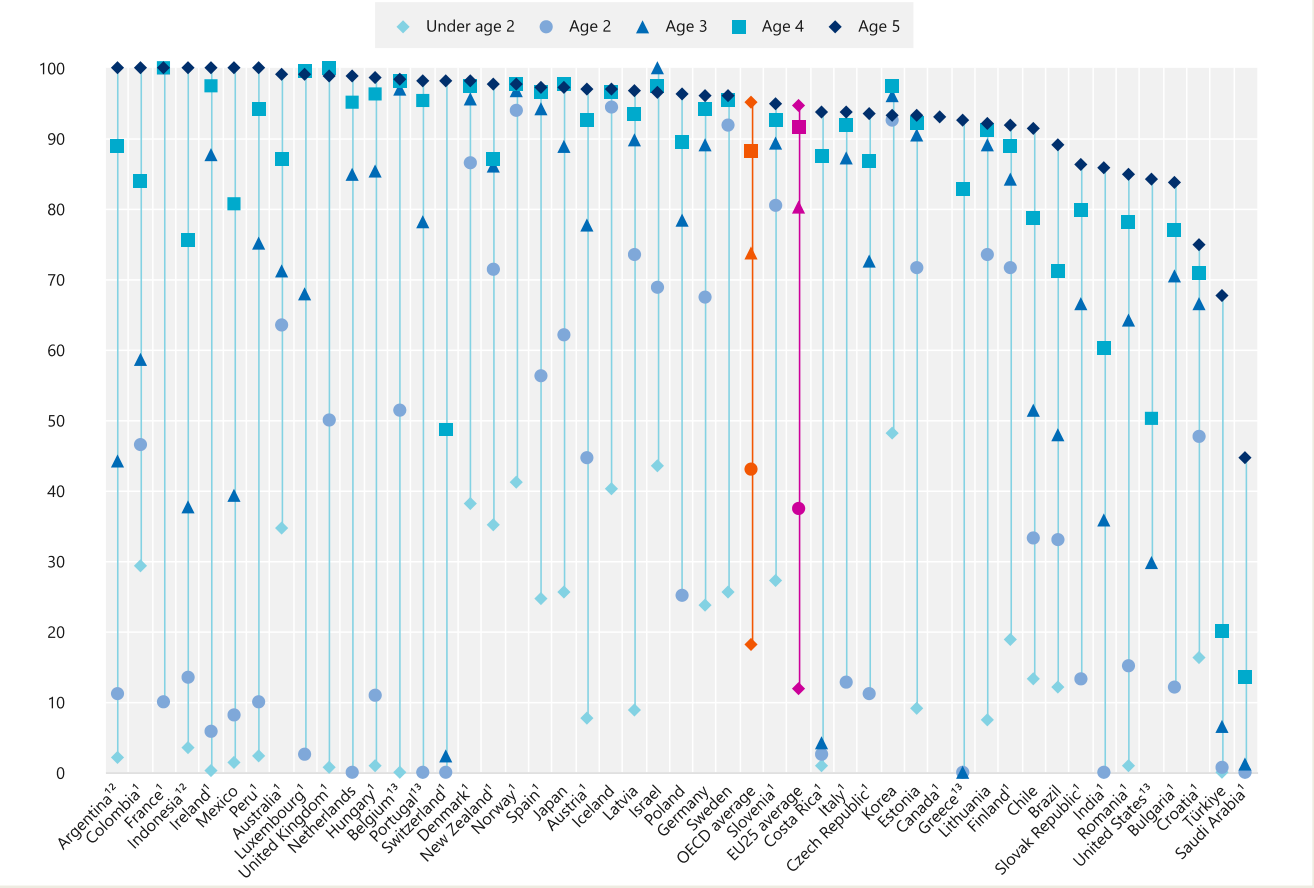
Such evidence has prompted policy makers to design early interventions, with initiatives that aim to enhance the quality of ECEC services and improve the equity of access to ECEC settings, lower the starting age of compulsory education, and rethink education spending patterns to gain "value for money" (Duncan and Magnuson, 2013[5]). Despite these general trends, there are substantial differences across OECD countries in the types, volume and quality of ECEC services.

Other findings

- On average, 18% of pre-primary teachers across OECD countries are under the age of 30. However, this share varies considerably across countries, ranging from 3% in Portugal to 49% in Japan.
- There are on average 14 children for every teacher working in pre-primary education, but with wide variations across countries.
- In many countries, teachers' average actual salaries tend to increase with the level of education, meaning that salaries for teachers in ECEC are particularly uncompetitive.

Figure B2.1.Enrolment rates of young children, by age (2021)

Education programmes meeting ISCED criteria and other registered ECEC services outside the scope of ISCED, in per cent



Note: Countries may have ECEC programmes on which enrolment statistics are not collected. For more information on which ECEC programmes are available in countries, see (OECD, 2023[6]) Education at a Glance 2023 Sources, Methodologies and Technical Notes, (https://doi.org/10.1787/d7f76adc-en) and the Education GPS (OECD, 2022).
1. Excludes other registered ECEC services.
2. Year of reference differs from 2021: 2020 for Argentina; 2018 for Indonesia.
3. Excludes ISCED 01 programmes.
Countries are ranked in descending order of enrolment rates of 5-year-olds.
Source: OECD/UIS/Eurostat (2023), Table B2.1. For more information see *Source* section and *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, (OECD, 2023[6]).

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Note

This indicator only covers formal education and care. Informal care services (generally unregulated care arranged by the child's parents either in the child's home or elsewhere, provided by relatives, friends, neighbours, babysitters or nannies) are not covered (see the *Definitions* section for more details). In addition, this indicator focuses mostly on teachers, as they are the staff members with the most responsibility for the learning of children on a day-to-day basis. The analysis also concentrates on the pre-primary level where data are more available and comparable.

Analysis

There is a growing consensus among OECD countries about the importance of high-quality early childhood education and care (ECEC). Research from a variety of contexts suggests that participation in high-quality ECEC is associated with positive outcomes in both the short and long term (OECD, 2021[7]). Some ECEC programmes have been shown to help children develop their cognitive, social and emotional skills. The progress that children make at a young age can have a lasting impact on their academic performance, well-being and earnings in later life (García et al., 2020[8]; Heckman and Karapakula, 2021[9]). Identifying which aspects of ECEC services constitute high-quality provision is therefore of great policy interest. The quality of ECEC provision has often been considered in terms of the structure of services and of the processes at work within settings (Slot, 2018[10]). Structural characteristics cover the infrastructure and organisation of ECEC services, such as group sizes, funding arrangements, types of staff and workforce training. Meanwhile, process quality concerns the daily interactions that occur between children and their environment as part of their ECEC programme, including their relationships with their peers, staff, families, communities and physical surroundings (Cadima et al., 2020[11]).

Multiple studies have stressed the importance of process quality in driving children's development in ECEC in particular (OECD, 2018[12]; Melhuish et al., 2015[13]). Process quality is influenced by a multitude of factors such as the characteristics of the children enrolled or the organisation and the competencies of staff, indicating that comprehensive strategies are needed to improve the quality of ECEC (OECD, 2021[7]). There is also evidence to suggest that process quality can be affected by the structural conditions of ECEC provision, which can be more easily regulated (OECD, 2018[12]). At the same time, policies governing ECEC programmes also have to take into account other priorities, such as access, demand and funding.

The types of ECEC services available to children and parents in OECD countries differ greatly. There are variations in the targeted age groups, the governance of centres, the funding of services, the type of delivery (full-day versus part-day attendance) and the location of provision, whether in centres or schools, or in homes (OECD, 2017[1]). The programmes offered by ECEC services can also vary significantly in terms of their content. In order to distinguish between ECEC services that are primarily focused on early childhood education and those that aim to offer childcare, ECEC provision can be classified into two main categories: those that comply with the ISCED 2011 classification of early childhood education (ECE) services, and other registered ECE services that are not considered by ISCED to be an educational programme.

In order to comply with the ISCED 2011 classification, ECE services must: 1) have adequate intentional educational properties; 2) be institutionalised; 3) have an intensity of at least 2 hours per day of educational activities and a duration of at least 100 days per year; 4) have a regulatory framework recognised by the relevant national authorities; and 5) have trained and accredited staff (OECD/Eurostat/UNESCO Institute for Statistics, 2015[14]).

There are other registered ECEC services that are an integral part of countries' ECEC provision but that do not comply with one or more of the criteria to be considered an educational programme under the ISCED 2011 classification, e.g. crèches in France (OECD/Eurostat/UNESCO Institute for Statistics, 2015[14]; OECD, 2006[15]). While such programmes exist in many countries, particularly for children under 3, not all countries are able to

report the number of children enrolled in them (Table B2.1). For this reason, the focus of this indicator is mainly on ECE programmes. It should be further noted that some services may not currently be recognised as meeting ISCED criteria but do meet the requirements for classification as an educational programme in practice. Thus, the educational status of programmes may be under review, as is the case with *amas* in Portugal.

Countries organise their national ECEC systems in a variety of ways, with a key difference being which administrative authorities are ultimately in charge and whether the system is split or integrated at the national level. More than half of the OECD countries with available data have integrated ECEC services, where one authority is responsible for administering the whole ECEC system and setting adequate intentional education for children from the ages of 0 or 1 until they start primary education (Box B2.1). In such cases, it is usually the education ministry that is in charge of regulating ECEC programmes. In the remaining countries with available data, different authorities are responsible for ECEC provision for different age groups. In these countries, services for older children (generally 3-5 year-olds) are often regulated by the education ministry, while services for younger children (generally aged 0 to 2) are governed by another authority.

Box B2.1. Interactive visualisations of the structure of ECEC programmes

An interactive online platform is available to provide complementary contextual information on early childhood education and care (ECEC) programmes. It gives information on the different types of programmes, their duration, the starting age as well as information regarding the governance, the curriculum frameworks and the monitoring methods.

The platform can be accessed at Dashboard on Early Childhood Education and Care (ECEC) Systems.

Enrolment in early childhood education and care

Enrolment of children aged 3 and below

Despite the benefits of high-quality ECEC in the first years of life, participation in early childhood education is not compulsory in any OECD country for children under the age of 3 (OECD, 2018[12]; 2018[2]). In 2021, around three-quarters of 3-year-olds were enrolled in formal ECE settings on average across OECD countries. The share is ranging from 4% or less in Costa Rica, Greece, Saudi Arabia and Switzerland to 100% in France, Israel and the United Kingdom (Table B2.1). The availability and length of parental leave and the starting age for ECE programmes influence whether children are enrolled in such services and the age at which they begin to attend. In most countries with early childhood educational development services (ISCED 01), children can be enrolled in relevant programmes before they turn one. However, in Latvia and Sweden, children can only be enrolled after their first birthday (See Annex 1, Table X1.5).

Entitlement to ECE is also a significant factor affecting enrolment rates. In Korea, for example, children have universal entitlement to early childhood educational development programmes within their first year, while children in Norway have the right to attend ECE after their first birthday (See Annex 1, Table X1.5). Significantly, children are also entitled to some free ECE from birth in Korea, the country with the highest enrolment rates in ECE for children under the age of 2 (Table B2.1).

Other factors, such as maternal employment rates and cultural perspectives on the role of women either in the workplace or as primary caregivers, are also likely to be important. In Sweden, where the enrolment rate is 25% under the age of 2 and 91% at the age of 3, 82% of mothers with children under 3 are employed, the highest level among OECD countries (OECD average of 60%) (OECD, 2020[16]). In contrast, relatively few young children are enrolled in ECEC in countries where maternal employment rates are low. For example, the enrolment rates

of children aged 2 are around 11% in Hungary and 13% in the Slovak Republic (Table B2.1), where the employment rates of mothers whose youngest child is under 3 are below 20%.

In some countries, considerable shares of children under 3 are enrolled in other registered ECEC services targeted at this age group that do not meet ISCED criteria for ECE. For example, 53% of children at age 2 in Japan are enrolled in such services, the highest reported share among OECD countries. A smaller share (9%) of 2-year-olds are also enrolled in ECE programmes in Japan, although these are primarily targeted at children aged at least 3 (Table B2.1).

Enrolment of children aged 3 and over

Bringing forward the starting age of compulsory schooling has been the focus of policy reform in recent years as research suggests that an early start to a quality education can be beneficial for children's development and can help prepare them for school. A decade ago, most OECD countries saw the start of compulsory education coincide with the start of primary school (at 6 years old in most countries). But today, ECE has become a mandatory level of education in 18 OECD countries, as the starting age of compulsory education has been lowered. In nine countries, compulsory education starts one year before entry into primary school but in several cases participation in ECE is mandatory for longer. For example, children are legally required to attend ECE for three years in France, Hungary, Israel and Mexico, and for two years in Argentina, Brazil, Costa Rica and Luxembourg (See Annex 1, Table X1.5).

In about one-third of countries, children are not obliged to attend early childhood education for any period but there is universal provision of such services. In several others, universal entitlement to ECE starts from an even earlier age than compulsory attendance. In Lithuania or Sweden, for example, only one year of pre-primary (ISCED 02) education is mandatory but all children have the right to a place in ECE for six years (See Annex 1, Table X1.5).

Although participation is not compulsory in all countries, enrolment of children over 3 is still very common across the OECD, with 88% of children aged 4 enrolled in ECE and primary education on average. In more than half of the OECD countries with available data, the enrolment of children between the ages of 3 and 5 is nearly universal, i.e. at least 90%. The highest enrolment rates of 4-year-olds in ECE and primary education are found in Belgium, France, Japan, Luxembourg, Norway and the United Kingdom, where they equal or exceed 98%. In contrast, 50% or less are enrolled in education in Saudi Arabia, Switzerland, the Republic of Türkiye and the United States (Table B2.1). Lower enrolment rates may be due to insufficient numbers of places, lack of awareness by parents of the importance of ECEC, limited public coverage and high cost of early learning settings, or low employment rates of mothers with young children (OECD, 2017[17]).

The vast majority of 3-5 year-olds enrolled in education attend pre-primary programmes across most OECD and partner and/or accession countries. However, in countries such as Australia, Ireland, New Zealand and the United Kingdom, primary education begins at age 5. Meanwhile, children do not start primary education until the age of 7 in Bulgaria, Estonia, Finland, Indonesia, Latvia, Lithuania, Poland, South Africa and Sweden (See Annex 1, Table X1.5). The age at which children should transition to primary education has long been debated across OECD countries. ECEC programmes aim to develop the cognitive, physical and socio-emotional skills needed to participate in school and society, while primary education is designed to give pupils a sound basic education in reading, writing and mathematics, along with a preliminary understanding of other subjects (OECD/Eurostat/UNESCO Institute for Statistics, 2015[14]).

Public and private provision of early childhood education and care

Parents' needs and expectations regarding accessibility, cost, programme, staff quality and accountability are all important in assessing the expansion of ECEC programmes and the type of providers. If public institutions do not meet parents' needs for quality, availability, accessibility or affordability, some parents may be more inclined to send their children to private institutions, or not to enrol them in ECEC at all (Shin, Jung and Park, 2009[18]).

In most countries, the share of children enrolled in private institutions is considerably higher in early childhood education than at primary and secondary levels. On average across OECD countries, half of the children in early childhood educational development services and one-third of those in pre-primary education are enrolled in either government-dependent or independent private institutions. In pre-primary education, this share ranges from 4% or less in Bulgaria and the Czech Republic to 99% in Ireland and New Zealand (Table B2.3).

Staffing of early childhood education and care

Teachers play a central role during children's early years, helping them develop in many aspects of their lives: cognitively, socially and emotionally. In ECE, teachers are the individuals with the most responsibility for a group of children at the class or playroom level and may be referred to as pedagogues, educators or childcare practitioners. They have varying levels of qualification across countries, but are generally expected to hold qualifications commensurate with the professional nature of their work, often a tertiary degree (OECD, 2020[19]).

In some countries, teachers constitute the vast majority of staff working with children in ECEC. In Japan, ECEC centre leaders reported that more than 70% of pre-primary staff working in ECEC centres are teachers (OECD, 2022[20]). However, in other countries, the workforce is more diverse and there are fewer teachers. ECEC centre leaders in Chile reported that teachers make up only around 20% of all pre-primary staff.

There is a large degree of variation among OECD countries regarding the share of contact staff who are teachers as opposed to teachers' aides. Teachers' aides support teachers and have lower levels of responsibility and autonomy but perform educational functions on a regular basis. In most countries, they need lower qualifications than teachers, often an upper secondary vocational qualification. In some countries, pre-primary teachers aides' need to meet additional selection criteria. For example, in Slovenia, pre-primary school assistants need to pass a state professional examination in education to qualify. At pre-primary level, nearly one-quarter of OECD, partner and/or accession countries do not have teachers' aides as a separate category of staff. Among those countries that do, they make up 10% or less of contact staff in Brazil, the Czech Republic, Germany, Ireland, Japan, Romania and the Slovak Republic but more than 60% in the United Kingdom.

Positive relationships with teachers are an important element of process quality, associated with both improved literacy and numeracy skills, and with better behavioural and social skills (OECD, 2018[12]). The quality of teachers' interactions with children is influenced by a range of factors, notably the preparation and support that they receive to enter the profession and in their continuing professional development (OECD, 2021[7]). However, teachers' capacity to foster positive relationships with young children is also influenced by their working conditions, which can affect their well-being and motivation to stay in the profession (OECD, 2020[21]).

Age profile of early childhood education teachers

The age distribution of ECE staff varies considerably across countries, and can be affected by a variety of factors, such as the size and age distribution of the population, as well as the attractiveness of staff salaries and working conditions within the ECE profession. On average across OECD countries, 18% of teachers at the pre-primary level are below the age of 30. However, this share varies considerably across countries, ranging from 3% in Portugal to 49% in Japan. Meanwhile, older staff (50 years and over) make up 30% of all teachers at pre-primary level on average across OECD countries. In 17 out of 38 countries with available data, the share of teachers aged 50 and over is at least double that of the share of those under 30, which may have some significant implications for their capacity to replace retiring teachers in the near future (Table B2.2).

Ensuring that young teachers working in ECEC are offered career development opportunities is central to avoiding teacher attrition. Survey data reveal that pre-primary staff under the age of 30 are most likely to want to leave the profession to take up further studies in an education programme, reflecting that young staff are seeking further qualifications for career progression, either within the ECEC sector or elsewhere (OECD, 2020[21]).

Gender profile of early childhood education and care staff

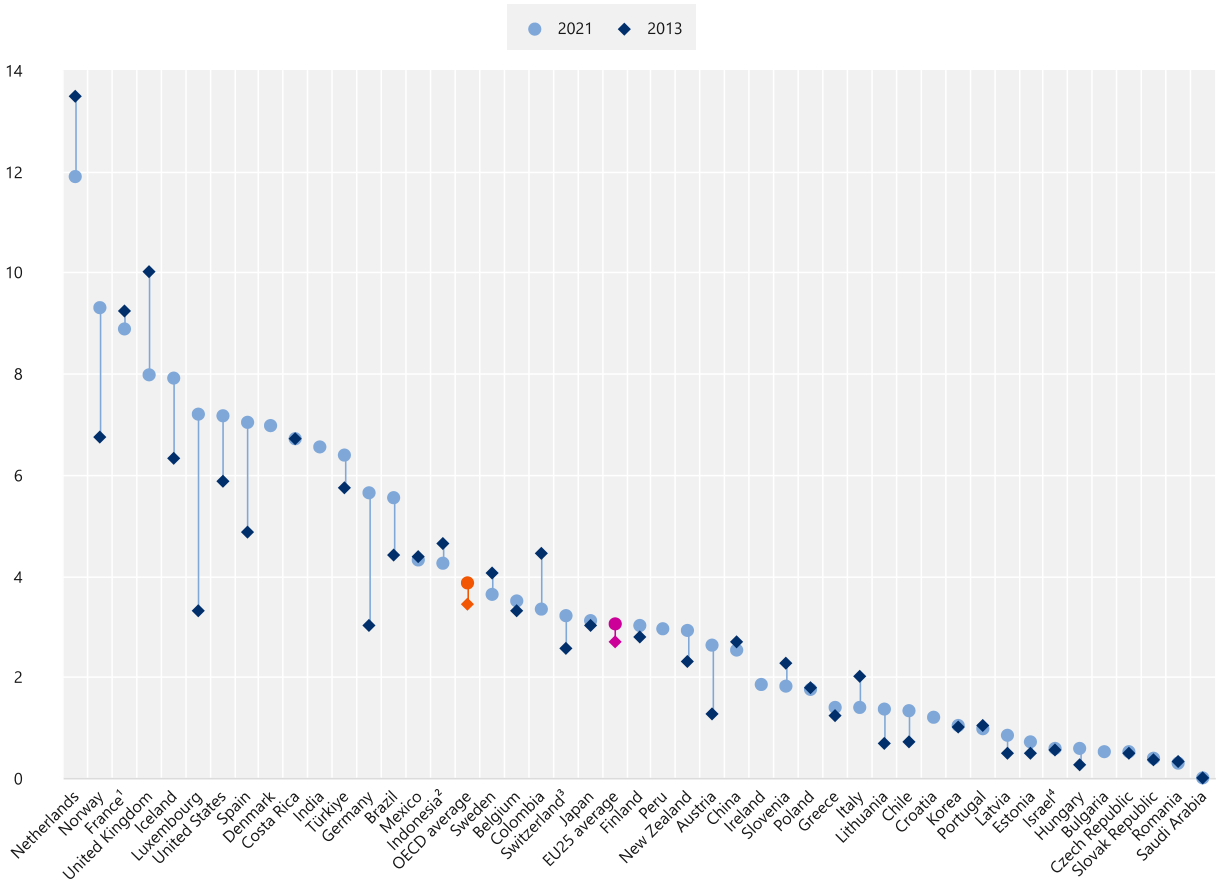
Women dominate the early childhood education and care workforce. Across all OECD countries with available data, 96% of pre-primary teachers are women. Very slow progress has been made towards greater male representation since 2013, when women accounted for 97% of pre-primary teachers (Table B2.2).

The gender imbalance of teaching staff in ECE raises questions as to why women are much more likely to enter the profession and what the implications are for the understanding of gender among children, staff and society. Gender stereotypes of women as caretakers contribute to the perception of teaching at pre-primary level as a female profession (Peeters, Rohrmann and Emilsen, 2015[22]). It is not necessarily the case that female teachers reinforce gender stereotypes in their interactions with children nor that the mere presence of more male teachers would tackle gender essentialism. However, scholars have argued that children's understanding of gender is broadened when they are able to observe a variety of gender expressions both within and between genders (Warin, 2019[23]; McGrath et al., 2020[24]). On a staff and societal level, having more men in the ECEC workforce could help to challenge dominant discourses about masculinity regarding the participation of men in young children's lives.

In this regard, governments in several OECD countries have made efforts to attract more men to the ECEC workforce in recent years. In Norway, for example where men make up less than 10% of pre-primary teachers, one measure has been the "Play Resources" project. As part of this initiative, boys are encouraged to experience work in ECEC settings, and consider working with young children as a professional career. For example, the county of Oppland financed a project where boys in secondary school (13-16 years old) were invited to work in ECEC settings for 1-2 weeks during their holidays, or 1 day a week after school, for a set period of time (OECD, 2020[21]).

Figure B2.2. Share of male teachers among pre-primary teaching staff (2013 and 2021)

In per cent



Note: Countries may have ECEC programmes on which enrolment statistics are not collected. For more information on which ECEC programmes are available in countries, see (OECD, 2023[6]) Education at a Glance 2023 Sources, Methodologies and Technical Notes, (https://doi.org/10.1787/d7f76adc-en) and the Education GPS (OECD, 2022).

1. Excludes data from independent private institutions (and government-dependent private institutions for teachers' aides).
2. Year of reference 2018.
3. Public institutions only for the ratio of children to teaching staff.
4. Public institutions only.

Countries are ranked in descending order of the share of male teachers in 2021.

Source: OECD/UIS/Eurostat (2023), Table B2.2. For more information see *Source* section and *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, (OECD, 2023[25]).

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Child-staff ratios

Child-staff ratios and group sizes are important indicators of the resources devoted to education. Research into the impact of lower child-staff ratios have found that they can be supportive of child-staff relationships across different types of ECEC settings. Smaller ratios are often seen as beneficial because they allow staff to focus more on the needs of individual children and reduce the amount of time spent addressing disruptions. Regulating these ratios can therefore be used to improve the quality of ECE. On average across OECD countries, there are 14 children for every teacher working in pre-primary education, with wide variations across countries. The ratio of children to teaching staff, excluding teachers' aides, ranges from 5 children or less per teacher in Iceland and Ireland to more than 30 in Colombia and the United Kingdom (Table B2.2).

Lower child-staff ratios are particularly important for high-quality interactions with children under 3 (COFACE, 2023[26]). With the exception of Hungary, Indonesia, Mexico and Romania the child-to-teacher ratio in early childhood development services (ISCED 01) is consistently lower than for pre-primary education (ISCED 02) across all OECD member, partner and/or accession countries. On average across OECD countries, there are 9 children for every teacher working in early childhood educational development services, ranging from 3 in Iceland to 29 in the United Kingdom (Table B2.2).

Sensitive and responsive child-adult interactions, enabled by lower child-staff ratios, bring great benefits to both children and staff. Children evolve in very personalised relationships with ECEC staff in a stimulating environment, while staff benefit from good-quality working conditions, which are in turn linked to stable relationships between children and practitioners as well as low staff turnover rates (COFACE, 2023[26]).

Lastly, low child-staff ratios may offer opportunities for stronger partnerships between parents and ECEC staff. Having fewer children to take care of during the day allows caregivers and teachers more time to discuss children's activities and also to communicate and develop relationships with parents, which in turn can determine the relationships between educators and children (COFACE, 2023[26]).

Some countries – Austria, Chile, Lithuania, Norway, Slovenia, Sweden and the United Kingdom – also make extensive use of teachers' aides, as can be seen from the smaller ratios of children to contact staff compared to teaching staff. In most cases, early childhood development services and pre-primary education have similar shares of teachers' aides among contact staff, with differences of less than 5 percentage points. In Chile, however, the share of teachers' aides in pre-primary is nearly twice that in early childhood development services, while the ratio of children to teaching staff (21:1) is well above the OECD average of 14:1 (Table B2.2).

Box B2.2. Early childhood education and care (ECEC) staff qualification and pre-service training

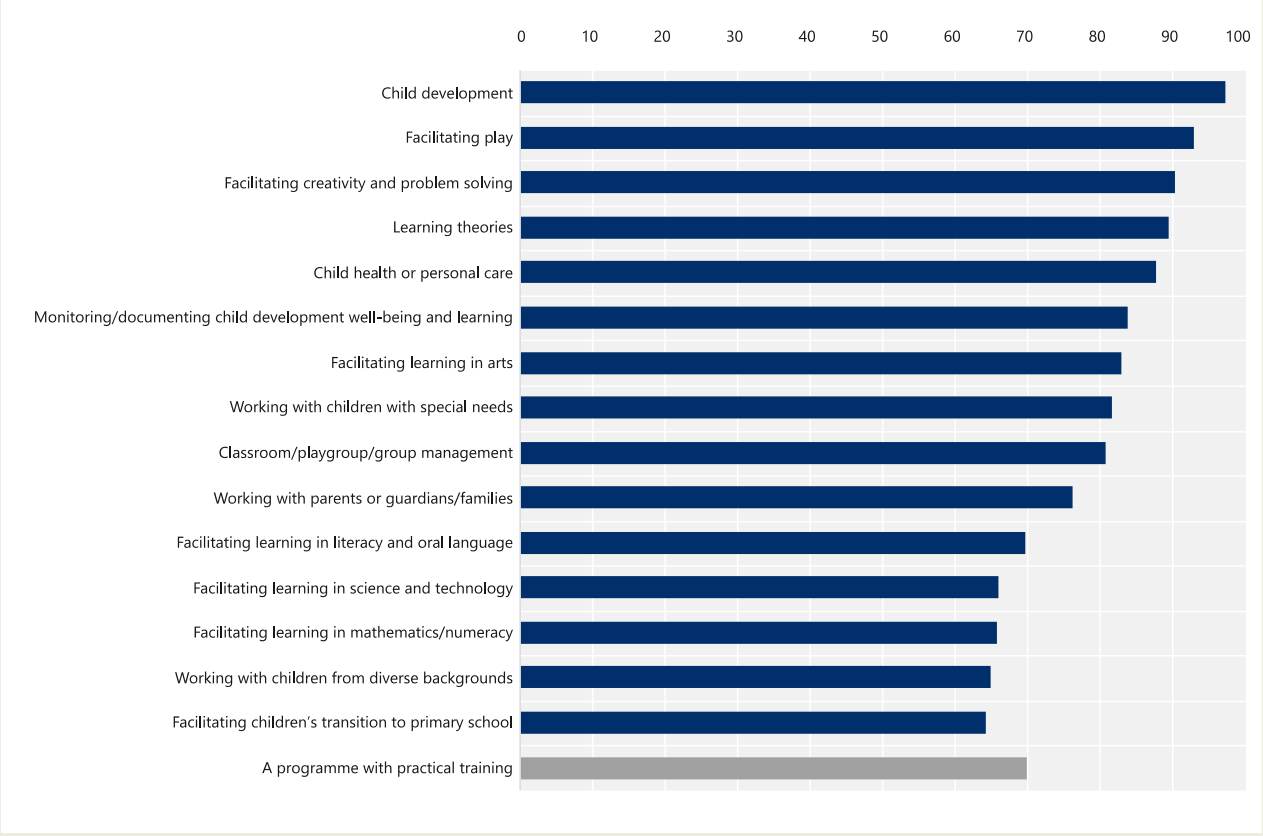
Teaching staff may follow different pathways in their preparation to become a teacher in different countries (see Indicator D6). Initial staff qualifications acquired during pre-service education and training are a strong predictor of process quality. Even within the same country, regulations on the minimum level of qualification required can differ between early childhood development services and pre-primary education. For example, teachers working with younger children (usually under 3 years) in the Flemish Community of Belgium, the Netherlands and Türkiye are required to have an upper secondary qualification. Meanwhile, teachers working with children from the age of 3 (or 4 in the Netherlands) are required to have a tertiary degree (see (OECD, 2023[6]) Education at a Glance 2023 Sources, Methodologies and Technical Notes).

Pre-service training focuses on teaching trainees about child development and how to support their learning and well-being. The OECD *TALIS Starting Strong Survey 2018* results reveal that, among pre-primary education staff who received specific training to work with children, the content areas covered by this training are broad. Nearly all staff (both teachers and assistants) receive training on child development (e.g. socio-emotional, motor, cognitive or self-regulation). Similarly, at least 90% receive training in facilitating play, creativity and problem solving. This is important, as playing, making and creating is one of the things 5-year-olds like most about being at their ECEC centre/school (OECD, 2021[27]) so ensuring that ECEC staff are well prepared to meet children's needs and interests is important. In contrast, slightly less than two-thirds of pre-primary education staff report receiving training on working with children from diverse backgrounds (e.g. multicultural, economically disadvantaged, religious) or training on facilitating children's transitions to primary school (Figure B2.3).

A period of workplace-based learning is a required part of pre-service training for working as a teacher in ECEC settings in all countries except Iceland, where it is, however, common practice. For instance, in Denmark, student ECEC teachers must complete the equivalent of more than one year of practical placements under the supervision and guidance of a qualified ECEC teacher, with both receiving financial compensation for their work during this time (OECD, 2019[28]).

Figure B2.3. Content of pre-service training to work with children

Average percentage of pre-primary education staff who received training in each of the following content areas and practical training as part of their formal education to work with children[1]



1. Data are available only for staff who received training specifically to work with children.

Source: *TALIS Starting Strong 2018 Database,* https://doi.org/10.1787/888934010774 (accessed on July 2023).

StatLink https://stat.link/ufgjqa

Salaries of pre-primary teachers

Competitive salaries, opportunities for career development and good working conditions are important levers for encouraging ECEC staff to enter the profession and increase their job satisfaction. In most OECD countries with available data, however, the average actual salaries of pre-primary teachers aged 25-64 are substantially lower than those of full-time, full-year workers with tertiary education. In Hungary and the Slovak Republic, their average salaries no more than 60% of those of tertiary-educated workers (see Indicator D3). In many countries, teachers' average actual salaries tend to increase with the level of education, meaning that salaries for teachers in ECEC are particularly uncompetitive. In a few countries, however, pre-primary teachers are paid salaries that on average are equal to or significantly higher than those of teachers at higher levels of education and well above the wages of tertiary-educated workers. Pre-primary teachers in Australia earn 5% more than tertiary-educated workers on average, rising to 40% more in Lithuania and Portugal (see Indicator D3).

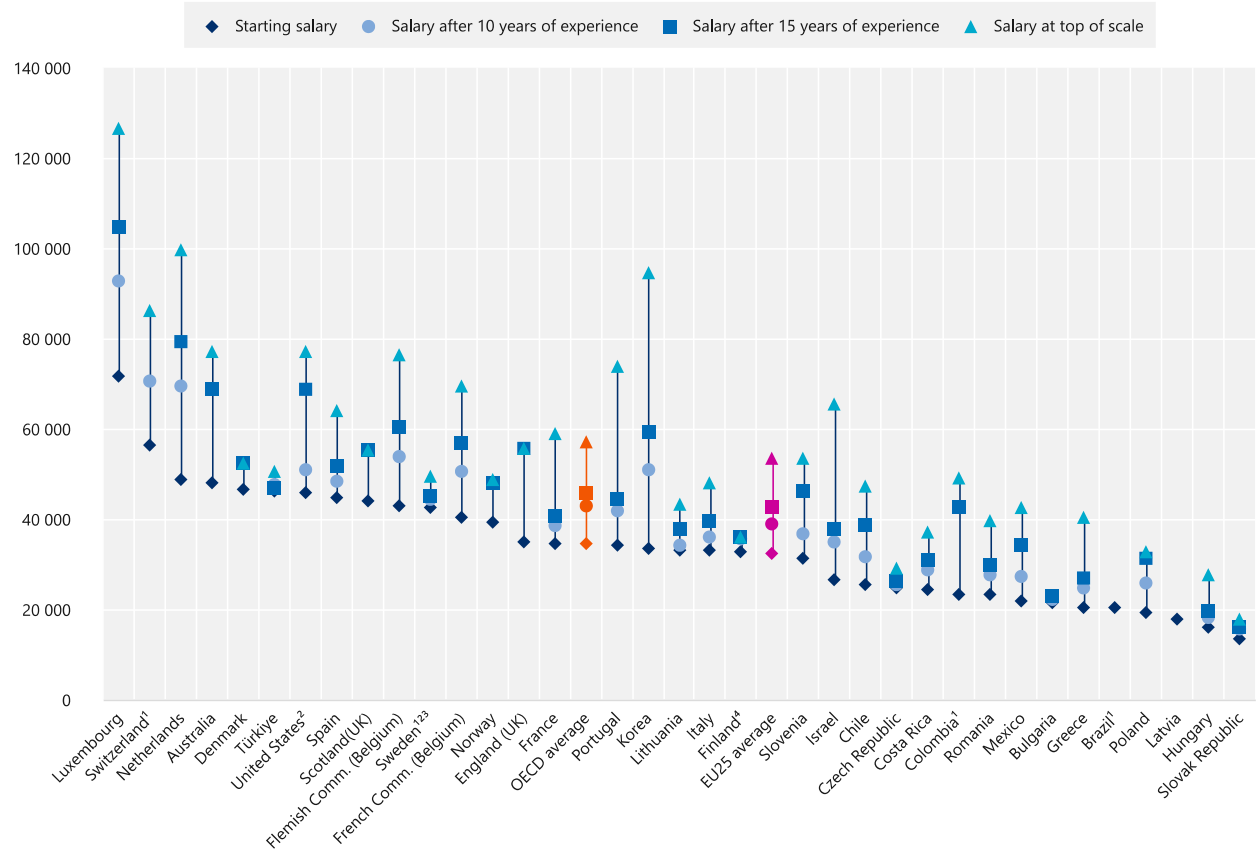
Given the wage gaps in most other countries, however, it is not surprising that in all countries, a majority of staff "strongly disagree" or "disagree" that they are satisfied with their salary, rising from 61% of pre-primary staff in Türkiye to 90% in Iceland (OECD, 2020[21]). This is a concern, as there is some evidence to suggest that higher

wages for ECEC staff are associated with higher-quality interactions with children (OECD, 2018[12]). Teachers' views of their value in society are also likely to be affected by their comparative earnings and these factors could discourage them from staying in the profession. Research suggests that lower salaries are often linked to higher levels of staff turnover, which is troubling given that positive child outcomes are consistently related to stability (Hunstman, 2008[29]).

Looking at pre-primary teachers' statutory salaries at four points in their careers (starting out, after 10 and 15 years of experience, and at the top of the scale) gives an overview of potential career incentives offered to ECEC staff. In OECD countries, pre-primary teachers' salaries for a given qualification level rise during the course of their career, although the rate of change differs across countries. On average across OECD countries, the salaries of pre-primary teachers with the most prevalent qualification are 65% higher at the top of the scale than starting salaries. The average starting salary is USD 34 563 across OECD countries, ranging from USD 13 559 in the Slovak Republic to USD 71 647 in Luxembourg, and rises to an average of USD 57 118 at the top of the scale across OECD countries, from USD 17 718 in the Slovak Republic to USD 126 576 in Luxembourg. Maximum salaries (at the top of the scale) are at least double the minimum salaries (starting salary) in Colombia, Israel, Korea, the Netherlands and Portugal (Table B2.3).

Figure B2.4. Pre-primary teachers' statutory salaries, based on the most prevalent qualifications at different points in teachers' careers (2022)

Annual teachers' salaries, in public institutions, in equivalent USD converted using PPPs for private consumption



1. Year of reference differs from 2022: 2021 for Colombia and Sweden, and 2020 for Brazil.
2. Actual base salaries.
3. Excludes the social security contributions and pension-scheme contributions paid by the employees.
4. Data on pre-primary teachers include the salaries of kindergarten teachers, who are the majority.

Countries are ranked in descending order of pre-primary teachers starting salaries.

Source: OECD (2023), Table D3.1. For more information see *Source* section and *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, (OECD, 2023[25]).

StatLink https://stat.link/1wgjsf

Financing early childhood education and care

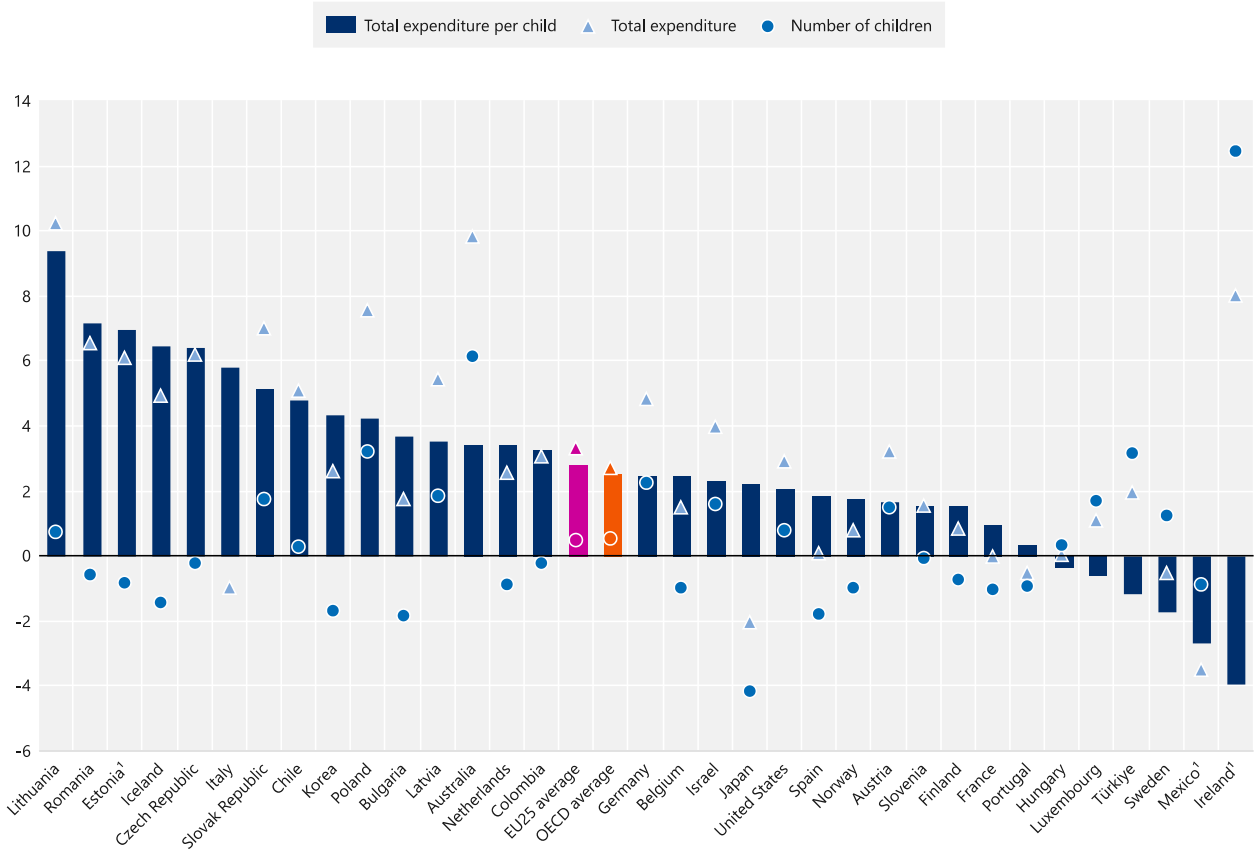
Sustained public financial support is critical for the growth and quality of ECEC programmes. Appropriate funding helps to recruit trained staff who are qualified to support children's cognitive, social and emotional development, as well as ensure their ongoing professional development. Investment in early childhood facilities and materials also helps support the development of child-centred environments for well-being and learning. Moreover, if the cost of ECEC is not sufficiently subsidised, parents' ability to pay will greatly influence participation in ECEC and there is a risk that children from disadvantaged socio-economic backgrounds are excluded from ECEC (OECD, 2017[1]).

Expenditure per child

Expenditure on pre-primary education per child increased by 3% per year on average across OECD countries between 2015 and 2020, although this figure masks wide cross-country differences. Annual expenditure per child rose in almost all countries, with the largest increases in Estonia (figures include early childhood development programmes), Lithuania and Romania, where the annual rate was 7% or more. Expenditure fell in only a small number of countries, by up to 4% in Ireland (where the figure includes all ECE programmes rather than only pre-primary ones). An increase in expenditure per child might be the result of an increase in the amount of funding available for pre-primary programmes or a fall in the number of children enrolled. For example, Ireland and Poland had a similar increase in expenditure between 2015 and 2020 (an average rate of 8%), but the number of children enrolled outstripped the increase in expenditure in Ireland, resulting in falling expenditure per child, whereas the number of children increased at a slower pace in Poland resulting in an increase in expenditure per child (Figure B2.5).

Figure B2.5. Average annual change in total expenditure on pre-primary education per child between 2015 and 2020

In per cent, 2015 constant prices and constant PPPs



1. Includes early childhood educational development programmes.
Countries are ranked in descending order of the average annual change in total expenditure per child.
Source: OECD/UIS/Eurostat (2023), *Education at a Glance Database*, http://stats.oecd.org. For more information see *Source* section and *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, (OECD, 2023[25]).

StatLink https://stat.link/pzcqfa

In pre-primary education, annual expenditure for both public and private settings averaged about USD 10 200 per child in OECD countries in 2020, ranging from less than USD 5 000 in Colombia, Romania and Türkiye to more than USD 16 000 in Iceland, Luxembourg and Norway (Table B2.3). Child-to-staff ratios and teacher compensation are the main drivers of spending at pre-primary level, as countries with lower child-to-staff ratios tend to spend more per child. Other factors, such as the length of time an ECEC setting is required to be open also influence expenditure levels. For example, pre-primary settings in Norway are open 48 weeks a year on average, compared to about 35 weeks in Belgium, Greece, Israel and Spain (see Box B2.2 in *Education at a Glance 2018* (OECD, 2018[30])).

Annual expenditure per child enrolled in early childhood educational development services is substantially higher than for pre-primary education, averaging about USD 15 600 across OECD countries with available data. However, this masks wide variation in spending between these levels of education across countries: in Lithuania, spending on early childhood educational development services is at most USD 1 000 more per child than at pre-primary level, compared to a difference of at least USD 11 000 more in Denmark, Finland and Norway. Australia, Chile, Hungary and Israel are the only OECD countries with data available where spending per child in early childhood development services is lower than at pre-primary level (Table B2.3).

Smaller child-to-staff ratios in early childhood development services are one of the main drivers of this difference (Table B2.3). However, they do not account for all of it. For example, in Chile, although the child-to-teacher ratio in pre-primay education is more than three times that in early childhood development services, spending levels in both services are quite similar (Table B2.3). This may be partly due the lower qualifications required of teaching staff at ECEC level, resulting in lower salary costs in some countries.

Expenditure as a percentage of gross domestic product (GDP)

Funding for ECE can also be analysed relative to a country's output. In 2020, expenditure on ECEC programmes represented 0.9% of gross domestic product (GDP) on average across OECD countries, whereas this share averages 0.7% for pre-primary programmes only. The highest values for funding at pre-primary level were observed in Iceland and Sweden (1.2% of GDP in both cases) (see Indicator C2). The differences in expenditure are largely explained by enrolment rates, legal entitlements and the intensity of participation, as well as the different ages at which children start primary education. The shorter duration of pre-primary education in Ireland, as a result of children's earlier transition from pre-primary to primary education, partly explains why that country's expenditure on ECEC as a percentage of GDP is below the OECD average. Similarly, late entry into primary education, as in Estonia, Latvia, Lithuania and Sweden, means a longer duration of ECEC than in other countries and may explain why those countries spend more as a percentage of GDP than the OECD average (see the information on starting ages for primary education in See Annex 1, Table X1.5).

It is therefore interesting to look at the overall funding for the education and care of children in a certain age range, regardless of the level they are enrolled at. Across OECD countries, the share of national resources devoted to 3-5 year-olds enrolled in ECE and primary education is 0.6% of GDP. This ranges from 0.3% of GDP in Greece, Ireland, Romania and Türkiye to at least 1% of GDP in countries such as Iceland and Norway (Table B2.3).

Sources of funding for early childhood education

On average across OECD countries, private funding represented 26% of total expenditure on early childhood educational development and 14% on pre-primary education in 2020 (Table B2.3). While the share of private funding varies greatly across countries, the source of funding does not necessarily reflect the entity providing the service. In all OECD member, partner and/or accession countries, the government provides at least 50% of the total funding for pre-primary education, even in countries where almost all pre-primary children attend private institutions. In Korea, for example, although 73% of pre-primary children attend private institutions, private sources account only 10% of total costs, a lower share than in countries with significantly higher public provision of pre-primary education, such as Denmark or Slovenia (Table B2.3). Different private entities may contribute to

the funding of pre-primary education. In the United Kingdom, most of the private funding comes from households. In Japan, private costs are shared between households, foundations and the business sector, although private ECE centres are publicly subsidised and household contributions to ECE are capped.

Early childhood education and care remains expensive for many parents, particularly for those of children under 3, where households' financial contributions tend to be higher than at the pre-primary level. Calculations using comparable data on childcare prices charged to parents, and accounting for all relevant support provisions, show that the net costs average 17% of women's median full-time earnings for a middle-income two-earner couple. This varies from over half of female median earnings in Japan and the United Kingdom to almost zero in Chile, the Czech Republic, Germany and Italy, where families with children in public childcare centres can benefit from heavily subsidised childcare fees or may be exempt from paying fees altogether (OECD, 2020[31]).

Compared to other levels of education, regional and local government sources provide a larger share of ECE funding than central government sources. In 2020, central government provided 49% of initial public funds for pre-primary expenditure on average across OECD countries. However, this masks wide differences across countries. Central government is the only source of public funding in Costa Rica, Greece and New Zealand, while local governments provide all the public funding at this level in several Northern European countries (Denmark, Iceland and Norway) (Table B2.3).

These variations reflect different governance models for ECE systems as well as the distribution of regulatory and funding responsibilities between levels of government. In Denmark, municipalities administer a range of key local services (Nusche et al., 2016[32]) and use a range of different parameters to allocate funds, including socio-economic background and school size. Similarly, in Germany, each state (Land) determines its own legislation and administration, and assists households with the costs of childcare. In contrast, 98% of initial government funds for pre-primary education come from central government in Chile (Table B2.3). Here, most government funds are allocated through school grants directly from the state to school providers and calculated using attendance and adjustment factors by level and type of education (Santiago et al., 2017[33]).

Definitions

ECE: ECEC services in adherence with the criteria defined in the ISCED 2011 classification (see ISCED 01 and 02 definitions) are considered early childhood education programmes and are therefore referred to as ECE in this indicator. Others are considered an integral part of countries' ECEC provision, but are not in adherence with all the ISCED criteria. (OECD, 2023[6]) Education at a Glance 2023 Sources, Methodologies and Technical Notes, available on line, makes the distinction between these two categories explicit.

- **ECEC services:** The types of ECEC services available to children and parents differ greatly. Despite those differences, most ECEC settings typically fall into one of the following categories (OECD, 2023[6]) (see Education at a Glance 2023 Sources, Methodologies and Technical Notes.

1. **Regular centre-based ECEC:** More formalised ECEC centres typically belong to one of these three subcategories:
    a. *Centre-based ECEC for children under age 3*: Often called "crèches", these settings may have an educational function, but they are typically attached to the social or welfare sector and associated with an emphasis on care. Many of them are part-time and provided in schools, but they can also be provided in designated ECEC centres.
    b. *Centre-based ECEC for children from the age of 3*: Often called kindergarten or pre-school, these settings tend to be more formalised and are often linked to the education system.
    c. *Age-integrated centre-based ECEC for children from birth or age 1 up to the beginning of primary school*: These settings offer a holistic pedagogical provision of education and care (often full-day).
2. **Family childcare ECEC:** Licensed home-based ECEC, which is most prevalent for children under age 3. These settings may or may not have an educational function and be part of the regular ECEC system.

3. **Licensed or formalised drop-in ECEC centres:** Often receiving children across the entire ECEC age bracket and even beyond, these drop-in centres allow parents to complement home-based care by family members or family childcare with more institutionalised services on an ad hoc basis (without having to apply for a place).

Full enrolment: As in Indicator B1, full enrolment is defined as enrolment rates exceeding 90%.

Informal care services: Generally unregulated care arranged by the child's parent either in the child's home or elsewhere, provided by relatives, friends, neighbours, babysitters or nannies; these services are not covered in this indicator.

ISCED 01 refers to **early childhood educational development services**, typically aimed at children under age 3. The learning environment is visually stimulating, and the language is rich and fosters self-expression, with an emphasis on language acquisition and the use of language for meaningful communication. There are opportunities for active play so that children can exercise their co-ordination and motor skills under supervision and in interaction with staff.

ISCED 02 refers to **pre-primary education**, aimed at children in the years immediately prior to starting primary education, typically aged 3-5. Through interaction with peers and educators, children improve their use of language and their social skills, start to develop logical and reasoning skills, and talk through their thought processes. They are also introduced to alphabetical and mathematical concepts, understanding and use of language, and are encouraged to explore their surrounding world and environment. Supervised gross motor activities (i.e. physical exercise through games and other activities) and play-based activities can be used as learning opportunities to promote social interactions with peers and to develop skills, autonomy and school readiness.

Teachers and comparable practitioners: Teachers have the most responsibility for a group of children at the class or playroom level. They may also be called pedagogue, educator, childcare practitioner or pedagogical staff in education, while the term teacher is almost universally used at the primary level.

Teachers' aides: Aides support the teacher in a group of children or class. They usually have lower qualification requirements than teachers, which may range from no formal requirements to, for instance, vocational education and training. This category is only included in the *Education at a Glance* indicator on the child-to-staff ratio.

Please see Indicators C1 and C2 for definitions of expenditure per student on educational institutions and expenditure on educational institutions relative to GDP.

Please see Indicator D3 for definitions on statutory and actual salaries of teachers.

Methodology

Enrolment rates

Net enrolment rates are calculated by dividing the number of children of a particular age / age group enrolled in ECEC by the size of the population of that age / age group. While enrolment and population figures refer to the same period in most cases, mismatches may occur due to data availability and different sources used in some countries resulting in enrolment rates exceeding 100%.

Full-time and part-time children

The concepts used to define full-time and part-time participation at other ISCED levels, such as study load, child participation and the academic value or progress that the study represents, are not easily applicable to ISCED level 0. In addition, the number of daily or weekly hours that represent typical full-time enrolment in an education programme at ISCED level 0 varies widely between countries. Because of this, full-time equivalents cannot be calculated for ISCED level 0 programmes in the same way as for other ISCED levels. For data-reporting

purposes, countries separate ISCED level 0 data into ISCED 01 and ISCED 02 by age only, as follows: data from age-integrated programmes designed to include children younger and older than 3 are allocated to levels 01 and 02 according to the age of the children. This may involve the estimation of expenditure and personnel at levels 01 and 02. For more information, see the *OECD Handbook for Internationally Comparative Education Statistics* (OECD, 2018[34]) and (OECD, 2023[6]) Education at a Glance 2023 Sources, Methodologies and Technical Notes, (https://doi.org/10.1787/d7f76adc-en) for country-specific notes.

Estimated expenditure for all children aged 3-5 enrolled in ECE and primary education as a percentage of GDP

The calculation of this new measure is based on the distribution of children aged 3-5 enrolled in ISCED 01, ISCED 02 and primary education (ISCED 1). For each country, the calculation was based on what proportion of all children enrolled at each of these three ISCED levels were aged 3-5. For instance, in Australia, children aged 3-5 accounted for 3% of all children enrolled in ISCED 01, 99% of all children enrolled in ISCED 02 and 11% of all children enrolled in ISCED 1. These percentages were used to estimate total expenditure for all children aged 3-5 enrolled in ECEC and primary education. Total expenditure for all children aged 3-5 is calculated by: 3% of all expenditure in ISCED 01 and 99% of all expenditure in ISCED 02 and 11% of all expenditure in ISCED 1. A similar calculation was made for all countries.

Source

- Data refer to the reference year 2021 (school year 2020/21) and financial year 2020.
- Data from Argentina, the People's Republic of China, India, Indonesia, Saudi Arabia and South Africa are from the UNESCO Institute of Statistics (UIS).
- Data are based on the UNESCO-UIS/OECD/Eurostat data collection on education statistics administered by the OECD in 2022 (for details, see (OECD, 2023[6]) Education at a Glance 2023 Sources, Methodologies and Technical Notes.

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Indicator B2 tables

Tables Indicator B2. How do early childhood education systems differ around the world?

Table B2.1	Enrolment rates in early childhood education and care (ECEC) and primary education, by age (2021)
Table B2.2	Profile of teachers and ratio of children to staff in early childhood education (ECE), by level of education (2013 and 2021)
Table B2.3	Financing of early childhood education (ECE) in public and private institutions (2020)

StatLink https://stat.link/cub5sz

Cut-off date for the data: 17 June 2023. Any updates on data can be found online at: http://dx.doi.org/10.1787/eag-data-en. More breakdowns can also be found at http://stats.oecd.org, *Education at a Glance Database*.

Table B2.1. Enrolment rates in early childhood education and care (ECEC) and primary education, by age (2021)

Public and private institutions

	Under age 2			Age 2			Age 3			Age 4			Age 5			Age 6		
	ECE (ISCED 0)	Other registered ECEC services	Total	ECE (ISCED 0)	Other registered ECEC services	Total	ECE (ISCED 0)	Other registered ECEC services	Total	ECE (ISCED 0)	Primary education	Total	ECE (ISCED 0)	Primary education	Total	ECE (ISCED 0)	Primary education	Total
OECD countries	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Australia	35	m	35	63	m	63	71	m	71	86	1	87	22	77	99	2	100	100
Austria	8	m	8	45	m	45	78	m	78	93	0	93	97	0	97	43	57	100
Belgium[1]	0	m	0	51	m	51	97	m	97	98	0	98	98	1	98	3	95	98
Canada[1]	m	m	m	m	m	m	m	m	m	m	m	m	93	0	93	0	96	96
Chile	13	0	13	33	0	33	51	1	51	79	0	79	91	0	92	25	73	97
Colombia	29	m	29	46	m	46	58	m	58	84	0	84	97	17	100	7	83	90
Costa Rica	1	m	1	3	m	3	4	m	4	87	0	87	94	0	94	2	92	94
Czech Republic	a	m	m	11	m	11	72	m	72	87	0	87	93	0	93	49	46	96
Denmark	38	m	38	87	m	87	96	m	96	97	0	97	97	1	98	6	93	99
Estonia	7	2	9	64	8	72	87	4	91	92	0	92	93	0	93	93	1	94
Finland	19	m	19	72	m	72	84	m	84	89	0	89	92	0	92	96	0	96
France	a	m	m	10	m	10	100	m	100	100	0	100	100	1	100	2	100	100
Germany	24	a	24	67	a	67	89	a	89	94	0	94	96	0	96	39	59	98
Greece[1]	0	m	0	0	m	0	0	m	0	83	0	83	93	0	93	4	92	95
Hungary	1	m	1	11	m	11	85	m	85	96	0	96	99	0	99	53	40	93
Iceland	27	13	40	94	0	94	97	0	97	97	0	97	97	0	97	0	98	98
Ireland	0	m	0	6	m	6	88	m	88	80	18	97	3	100	100	2	100	100
Israel	44	a	44	69	a	69	100	a	100	97	0	97	96	0	96	13	84	97
Italy	a	m	m	13	m	13	87	m	87	92	0	92	87	7	94	1	97	98
Japan	a	26	26	9	53	62	89	0	89	98	0	98	97	0	97	0	100	100
Korea	48	a	48	93	a	93	96	a	96	97	0	97	93	0	93	0	97	97
Latvia	9	a	9	74	a	74	90	a	90	94	0	94	97	0	97	93	4	98
Lithuania	7	a	7	73	a	73	89	a	89	91	0	91	92	0	92	89	8	96
Luxembourg	a	m	m	3	m	3	68	m	68	100	0	100	94	5	99	6	93	99
Mexico	1	a	1	8	a	8	39	a	39	81	0	81	75	25	100	1	98	99
Netherlands	a	m	m	0	m	0	85	m	85	95	0	95	99	0	99	0	100	100
New Zealand	31	4	35	66	6	71	82	4	86	87	0	87	7	91	98	0	98	99
Norway	41	m	41	94	m	94	97	m	97	98	0	98	98	0	98	1	99	99
Poland	a	8	m	6	19	25	76	2	78	89	0	89	96	0	96	99	2	100
Portugal[1]	0	m	0	0	m	0	78	m	78	95	0	95	98	0	98	15	85	100
Slovak Republic	a	m	m	13	m	13	67	m	67	80	0	80	86	0	86	44	50	94
Slovenia	27	m	27	80	m	80	89	m	89	93	0	93	95	0	95	11	87	98
Spain	25	m	25	56	m	56	94	m	94	97	0	97	97	0	97	1	97	98
Sweden	25	0	26	91	1	92	94	1	95	95	0	95	96	0	96	98	1	99
Switzerland	a	m	m	0	m	0	2	m	2	49	0	49	97	1	98	53	46	100
Türkiye	0	a	0	1	a	1	6	a	6	20	0	20	66	2	68	0	91	91
United Kingdom	1	m	1	50	m	50	100	m	100	100	3	100	0	99	99	0	100	100
United States[1]	m	m	m	m	m	m	30	m	30	50	0	50	81	4	84	20	74	93
OECD average	17	m	18	41	m	43	73	m	74	88	1	88	84	11	95	26	72	97
Partner and/or accession countries																		
Argentina[2]	2	m	2	11	m	11	44	m	44	89	0	89	100	0	100	1	100	100
Brazil	12	a	12	33	a	33	48	a	48	71	0	71	87	2	89	13	81	94
Bulgaria	a	m	m	12	m	12	71	m	71	77	0	77	84	0	84	81	5	86
China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Croatia	16	m	16	48	m	48	66	m	66	71	0	71	75	0	75	79	19	98
India	0	m	0	0	m	0	36	m	36	58	2	60	57	28	86	0	88	88
Indonesia[2]	3	m	3	14	m	14	38	m	38	76	m	76	99	3	100	59	63	100
Peru	2	m	2	10	m	10	75	m	75	94	a	94	100	3	100	1	98	99
Romania	1	m	1	15	m	15	64	m	64	78	0	78	85	0	85	17	73	90
Saudi Arabia	0	m	0	0	m	0	1	m	1	14	0	14	37	7	45	2	89	90
South Africa[1, 2]	m	m	m	m	m	m	m	m	m	m	0	m	m	0	m	m	33	m
EU25 average	12	m	12	36	m	37	80	m	80	91	1	92	90	5	95	38	60	97
G20 average	12	m	13	29	m	32	62	m	62	77	0	77	77	14	90	10	85	96

Note: See StatLink and Box B2.3 for the notes related to this Table.

Source: OECD/UIS/Eurostat (2023). See *Source* section for more information and (OECD, 2023[6]), *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, https://doi.org/10.1787/d7f76adc-en.

StatLink https://stat.link/2o64ln

Table B2.2. Profile of teachers and ratio of children to staff in early childhood education (ECE), by level of education (2013 and 2021)

	Share of teachers by age group				Share of male teachers			Ratio of children to staff in full-time equivalents, by type of ECE service (public and private institutions)					
	2021				2021		2013	2021					
	Early childhood educational development (ISCED 01)	Pre-primary (ISCED 02)			Early childhood educational development (ISCED 01)	Pre-primary (ISCED 02)	Pre-primary (ISCED 02)	Early childhood educational development (ISCED 01)			Pre-primary (ISCED 02)		
	< 30 years	< 30 years	30-49 years	>= 50 years	Total	Total	Total	Share of teachers' aides among contact staff	Children to contact staff (teachers and teachers' aides)	Children to teaching staff	Share of teachers' aides among contact staff	Children to contact staff (teachers and teachers' aides)	Children to teaching staff
OECD countries	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Australia	m	m	m	m	m	m	m	m	m	m	m	m	m
Austria	37	30	49	21	2	3	1	44	5	10	39	8	14
Belgium	m	17	55	28	m	3	3	m	m	m	a	13	13
Canada	m	m	m	m	m	m	m	m	m	m	m	m	m
Chile	18	14	65	21	1	1	1	30	4	6	58	9	21
Colombia	m	24	42	34	m	3	4	m	m	m	m	m	46
Costa Rica	7	7	67	26	15	7	7	a	4	4	a	11	11
Czech Republic	a	17	42	41	a	1	0	a	a	a	10	11	12
Denmark	11	11	51	38	7	7	m	39	3	5	39	6	10
Estonia	x(2)	10[d]	43[d]	47[d]	x(6)	1[d]	0	m	m	x(13)	m	m	8[d]
Finland	m	17	51	32	m	3	3	m	m	m	m	m	8
France[1]	a	10	60	30	a	9	9	a	a	a	39	14	22
Germany	22	22	49	30	5	6	3	10	4	5	10	8	9
Greece	m	8	54	38	m	1	1	m	m	m	a	10	10
Hungary	16	15	44	41	2	1	0	a	13	13	a	13	13
Iceland	36	36	43	21	8	8	6	a	3	3	a	5	5
Ireland	m	m	m	m	x(6)	2[d]	m	x(11)	x(12)	x(13)	5[d]	4[d]	4[d]
Israel[2]	m	11	63	26	m	1	1	m	m	m	m	m	m
Italy	a	1	38	61	a	1	2	a	a	a	a	11	11
Japan	a	49	40	11	a	3	3	a	a	a	9	12	13
Korea	20	46	46	7	0	1	1	a	5	5	a	13	13
Latvia	12	12	47	40	1	1	1	m	m	5	m	m	11
Lithuania	11	12	41	47	0	1	1	37	6	9	38	6	10
Luxembourg	a	24	63	13	a	7	3	a	a	a	a	9	9
Mexico	m	m	m	m	0	4	4	73	6	23	a	19	19
Netherlands	a	16	53	31	a	12	13	a	a	a	18	13	16
New Zealand	25	25	50	25	3	3	2	m	m	4	m	m	6
Norway	19	19	63	18	9	9	7	59	3	6	59	5	11
Poland	a	17	58	25	a	2	2	a	a	a	m	m	13
Portugal	m	3	44	53	m	1	1	m	m	m	m	m	16
Slovak Republic	a	16	47	38	a	0	0	a	a	a	4	11	11
Slovenia	10	10	63	27	2	2	2	52	5	11	52	9	19
Spain	11	11	61	28	2	7	5	m	m	8	m	m	13
Sweden	11	10	52	38	3	4	4	60	5	13	55	6	14
Switzerland[2]	a	17	53	30	a	3	3	a	a	a	m	m	18
Türkiye	m	22	74	4	m	6	6	m	m	m	m	m	13
United Kingdom	27	23	57	20	5	8	10	91	3	29	88	4	36
United States	m	m	m	m	m	7	6	m	m	m	25	10	13
OECD average	18	18	52	30	m	4	3	49	5	9	34	10	14
Partner and/or accession countries													
Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m
Brazil	15	13	67	20	3	6	4	26	9	12	9	12	13
Bulgaria	a	10	50	40	a	1	m	a	a	a	a	12	12
China	m	m	m	m	a	3	3	m	m	m	m	m	m
Croatia	17	17	56	26	1	1	m	m	m	8	m	m	10
India	m	m	m	m	a	7	m	m	m	m	m	m	m
Indonesia[3]	m	m	m	m	7	4	5	m	m	21	m	m	13
Peru	m	m	m	m	3	3	m	m	m	m	m	m	m
Romania	9	19	58	24	0	0	0	12	17	19	4	14	14
Saudi Arabia	a	m	m	m	a	0	0	a	a	a	m	m	13
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m
EU25 average	15	14	51	35	m	3	3	36	7	9	26	10	12
G20 average	m	m	m	m	m	5	4	m	m	m	m	m	m

Note: See StatLink and Box B2.3 for the notes related to this Table.

Source: OECD/UIS/Eurostat (2023). See *Source* section for more information and (OECD, 2023[6]), *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, https://doi.org/10.1787/d7f76adc-en.

StatLink https://stat.link/d4rwjf

Table B2.3. Financing of early childhood education (ECE) in public and private institutions (2020)

Expenditure per child enrolled in ECE, distribution of sources of public funds and relative share of private expenditure

	Percentage of children enrolled in private institutions (government-dependent and independent private institutions)			Expenditure on all children aged 3 to 5 enrolled in ECE and primary education (based on head counts)		Annual expenditure per child in USD, converted using PPPs (based on head counts)			Distribution of initial funds (before transfers) between levels of government			Relative proportions of private expenditure on early childhood education (after public to private transfers)		
									Pre-primary (ISCED 02)					
	Early childhood educational development (ISCED 01)	Pre-primary (ISCED 02)	All ECE (ISCED 0)	As a % of GDP	Per child (in USD PPP)	Early childhood educational development (ISCED 01)	Pre-primary (ISCED 02)	All ECE (ISCED 0)	Central	Regional	Local	Early childhood educational development (ISCED 01)	Pre-primary (ISCED 02)	All ECE (ISCED 0)
OECD countries	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Australia	m	86	m	0.6	10 632	8 059	9 726	8 983	74	26	0	30	24	26
Austria	61	29	35	0.5	12 188	15 786	11 977	12 698	6	53	41	23	11	14
Belgium[1]	m	53	m	0.6	10 595	m	10 589	m	23	72	5	m	2	m
Canada	m	7	m	m	m	m	m	m	m	m	m	m	m	m
Chile	10	64	53	0.9	7 547	7 530	7 548	7 544	98	a	2	19	16	17
Colombia	m	19	m	0.5	1 852	m	1 657	m	88	3	9	85	23	40
Costa Rica[2]	61	11	13	m	m	m	m	m	100	a	a	m	m	m
Czech Republic	a	4	4	0.5	8 048	a	8 048	8 048	8	60	32	a	9	9
Denmark	15	22	19	0.6	m	23 918	12 234	16 508	0	0	100	24	24	24
Estonia	x(3)	x(3)	4	0.8	10 699	x(8)	x(8)	10 699	m	a	m	x(14)	x(14)	11
Finland	24	15	16	0.6	13 511	26 933	13 511	16 016	29	a	71	5	7	6
France	a	14	14	0.7	9 985	a	9 986	9 986	51	0	48	a	6	6
Germany	73	65	67	0.6	12 944	20 774	12 946	15 049	0	46	55	7	8	7
Greece[1,2]	m	11	m	0.3	6 411	m	6 411	m	100	a	0	m	13	m
Hungary	17	12	12	0.6	m	6 853	7 600	7 565	71	a	29	10	10	10
Iceland	21	15	17	1.2	18 770	27 804	18 775	21 839	a	a	100	8	12	10
Ireland	100	99	99	0.3	m	x(8)	x(8)	4 790	m	a	a	x(14)	x(14)	16
Israel	100	35	58	0.9	5 936	3 208	5 930	4 960	78	a	22	71	7	22
Italy	a	28	28	0.5	10 078	a	10 032	10 032	81	4	15	a	13	13
Japan[3]	a	78	78	m	m	a	8 557	8 557	29	38	33	a	23	23
Korea	83	73	77	0.5	10 102	m	10 099	m	79	19	2	m	10[d]	m
Latvia[1]	20	9	11	0.7	7 348	7 348	7 348	7 348	11	a	89	6	6	6
Lithuania	12	6	7	0.7	9 894	10 159	9 894	9 944	44	a	56	15	11	12
Luxembourg	a	10	10	0.5	22 708	a	22 702	22 702	79	a	21	a	2	2
Mexico	56	16	18	0.6	2 579	m	m	2 558	m	m	m	x(14)	x(14)	12
Netherlands	a	29	29	0.4	8 901	a	8 901	8 901	89	0	11	a	14	14
New Zealand	99	99	99	m	m	m	m	m	100	0	0	m	m	m
Norway	51	49	50	1.0	17 412	31 341	17 412	22 386	0	a	100	13	13	13
Poland	a	26	26	0.7	8 644	a	8 644	8 644	74	0	26	a	15	15
Portugal[1]	m	47	m	0.6	8 323	m	8 322	m	77	9	13	m	35	m
Slovak Republic	a	8	8	0.6	6 623	a	7 642	7 642	11	a	89	a	11	11
Slovenia	7	5	6	0.7	10 038	13 218	10 038	11 016	12	a	88	20	19	20
Spain	48	32	37	0.6	8 231	10 205	8 230	8 742	11	80	9	29	14	19
Sweden	20	18	19	0.9	14 934	21 407	14 934	16 621	m	a	m	6	6	6
Switzerland	a	5	5	m	m	a	m	m	0	47	53	a	m	m
Türkiye[1]	100	18	18	0.3	4 698	m	4 718	m	99	a	1	m	16	m
United Kingdom	82	56	61	0.6	m	m	m	m	7	a	93	70	30	40
United States[1]	m	40	m	0.4	11 102	m	11 014	m	22	34	44	m	24	m
OECD average	51	33	32	0.6	10 025	15 636	10 181	11 145	49	12	39	26	14	15
Partner and/or accession countries														
Argentina	50	29	30	m	m	m	m	m	m	m	m	m	m	m
Brazil	33	22	26	m	m	m	m	m	m	m	m	m	m	m
Bulgaria	a	2	2	0.6	6 710	a	6 712	6 712	94	a	6	a	5	5
China	a	56	56	m	m	m	m	m	m	m	m	m	m	m
Croatia	19	20	20	0.5	7 098	m	m	7 098	m	m	m	x(14)	x(14)	23
India	a	25	25	m	m	a	m	m	m	m	m	a	m	m
Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Peru	11	24	23	m	m	m	m	m	m	m	m	m	m	m
Romania	3	6	6	0.3	4 812	11 174	4 832	5 076	79	a	21	1	0	0
Saudi Arabia	m	47	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	6	m	m	m	m	m	m	m	m	a	m	m	m
EU25 average	32	24	22	0.6	9 942	15 252	10 070	10 538	45	13	42	13	11	11
G20 average	47	28	28	m	m	m	m	m	m	m	m	m	m	m

Note: See StatLink and Box B2.3 for the notes related to this Table.

Source: OECD/UIS/Eurostat (2022, 2023). See *Source* section for more information and (OECD, 2023[6]), *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, https://doi.org/10.1787/d7f76adc-en.

StatLink https://stat.link/sh1lnd

Box B2.3. Notes for Indicator B2 tables

Table B2.1. Enrolment rates in early childhood education and care (ECEC) and primary education, by age (2021)

Early childhood education (ECE) = ISCED 0, other registered ECEC services = ECEC services outside the scope of ISCED 0, because they are not in adherence with all ISCED criteria. To be classified in ISCED 0, ECEC services should: 1) have adequate intentional educational properties; 2) be institutionalised (usually school-based or otherwise institutionalised for a group of children); 3) have an intensity of at least 2 hours per day of educational activities and a duration of at least 100 days a year; 4) have a regulatory framework recognised by the relevant national authorities (e.g. curriculum); and 5) have trained or accredited staff (e.g. requirement of pedagogical qualifications for educators).

1. Excludes ISCED 01 programmes.

2. Year of reference differs from 2021: 2020 for Argentina and South Africa; 2018 for Indonesia.

Table B2.2. Profile of teachers and ratio of children to staff in early childhood education (ECE), by level of education (2013 and 2021)

Additional columns showing the breakdown of other age groups in early childhood educational development, and for male teachers in pre-primary education, are available for consultation on line (see StatLink below).

1. Excludes data from independent private institutions (and government-dependent private institutions for teachers' aides).

2. Public institutions only. For Switzerland, only for the ratio of children to teaching staff.

3. Year of reference differs from 2021: 2018 for Indonesia.

Table B2.3. Financing of early childhood education (ECE) in public and private institutions (2020)

The percentage of children enrolled in private institutions for 2020 is available in the Education at a Glance Database (http://stats.oecd.org/).

1. Expenditure on all children aged 3 to 5 excludes expenditure and enrolment in ISCED 01 programmes.

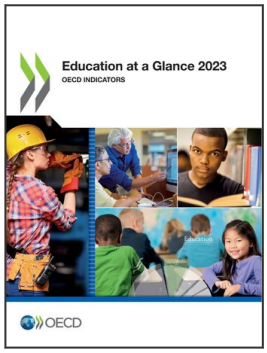
2. Year of reference differs from 2020: 2021 for Costa Rica and 2019 for Greece.

3. Data do not cover day care centres and integrated centres for early childhood education and care.

For more information see *Definitions, Methodology* and *Source* sections and *Education at a Glance 2023 Sources, Methodologies and Technical Notes* (OECD, 2023[6]).

Data and more breakdowns are available in the Education at a Glance Database (http://stats.oecd.org/).

Please refer to the Reader's Guide for information concerning symbols for missing data and abbreviations.



From:

Education at a Glance 2023

OECD Indicators

Access the complete publication at:
https://doi.org/10.1787/e13bef63-en

Please cite this chapter as:

OECD (2023), "How do early childhood education systems differ around the world?", in *Education at a Glance 2023: OECD Indicators*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/117c4974-en