

TALIS

Building Quality Education and Care for Children under Three

Further Results from TALIS Starting Strong 2024



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FURTHER RESULTS FROM TALIS STARTING
STRONG 2024

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Foreword

Every day, millions of parents entrust the care of their infants and toddlers to nurseries, creches, childcare centres or home-based professionals. As they do so, they likely ask themselves familiar questions: Will my child be safe and happy? What experiences will shape their day? And are the professionals caring for them properly trained for this vital role?

In many countries, early childhood education and care (ECEC) for children under age 3 has expanded to meet families' needs. For example, systems have public and private provision, centre-based and home-based settings, as well as services that cater to mixed age groups. This diversity can be a strength. It offers flexibility, allowing families to find arrangements that align with their needs and circumstances. Private and home-based providers have also often played a crucial role in expanding capacity, helping to meet the demand for places.

Yet, for many families, choice remains limited. Availability, cost and location frequently determine the options parents can realistically consider. At the same time, diversity in provision can be accompanied by variation in quality. For the youngest children, the quality of daily interactions with caregivers, peers and their environment is crucial to their development. These early experiences shape cognitive, social and emotional development, laying the groundwork for later learning and life outcomes. A large body of evidence shows that high-quality ECEC can have lasting positive effects, particularly for children from disadvantaged backgrounds. However, these groups are more likely to attend low-quality care settings.

The OECD Starting Strong Teaching and Learning International Survey (TALIS Starting Strong) provides unique insights into these issues. First conducted in 2018 and repeated in 2024, the survey gathers the perspectives of staff and leaders working in ECEC settings. The 2024 cycle included 15 systems at the pre-primary level, and eight focused on provision for children under age 3: the Flemish Community of Belgium, Germany, Ireland, Israel, New Brunswick (Canada), New Zealand, Norway and Quebec (Canada). This report presents the findings for the latter group.

Although the number of participating systems at this level remains limited, they reflect a wide range of organisational models. The report offers a window into how countries organise education and care for their youngest children, documenting pedagogical practices and professionals' beliefs about early development; the qualifications, working conditions and job satisfaction of staff; and the human and material resources available in settings. It gives voice to the professionals who work with children under age 3, illuminating what happens beyond the doors of ECEC services.

The analysis also examines how fragmentation within ECEC systems relates to variations in quality, and the extent to which such differences disproportionately affect vulnerable children. It highlights policies and mechanisms that can reduce disparities, strengthen coherence and foster continuous quality improvement across settings. By providing robust, comparative evidence, this report supports policymakers in designing stronger, more equitable ECEC systems, ensuring that all young children, regardless of background or setting, benefit from high-quality early experiences.

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What is TALIS Starting Strong?

The OECD Starting Strong Teaching and Learning International Survey (TALIS Starting Strong) uses questionnaires administered to staff and leaders to gather data about a variety of aspects related to their background, training and daily work. For example, TALIS Starting Strong collects data about staff and leader demographics (e.g. age, gender) and ECEC settings' characteristics (e.g. size, location). Staff also provide information about their working hours; professional development; contract modalities; practices with children and families; and their well-being, job satisfaction and career intentions. Additional information on the areas covered by the survey can be found in the *TALIS Starting Strong 2024 Conceptual Framework* (OECD, 2025^[1]).

How is TALIS Starting Strong implemented?

The TALIS Governing Board (TGB) leads the overall TALIS programme, with an Informal Group within the TGB focused specifically on TALIS Starting Strong. The TGB is composed of a representative from each country and territory that participates in the survey. The TGB oversees the OECD Secretariat, which in turn manages a consortium of international actors that together develop and implement TALIS Starting Strong.

A diverse group of ECEC experts, guided by the TGB and TALIS Starting Strong Informal Group, drafts the questions that appear in the survey. Each question is translated into the national languages of every participating country and subnational entity. The questions are tested to verify their translations and their functioning.

Each country and subnational entity chooses to administer TALIS Starting Strong in one or two levels of ECEC: pre-primary (International Standard Classification of Education [ISCED] level 02) and settings for children under age 3. Within each level in each country or subnational entity, a representative sample of roughly 1 200 staff from 180 ECEC settings are asked to complete the survey along with their setting leaders.

Which countries and subnational entities participate in TALIS Starting Strong?

TALIS Starting Strong 2024 includes 15 countries and subnational entities at the level of pre-primary settings (ISCED level 02): Chile, Colombia, Denmark, Finland, the Flemish Community of Belgium, Germany, Ireland, Israel, Japan, Morocco, New Zealand, Norway, Spain, Sweden and the Republic of Türkiye (hereafter “Türkiye”). In addition, eight countries and subnational entities are included at the level of settings for children under age 3: the Flemish Community of Belgium, Germany, Ireland, Israel, New Brunswick (Canada), New Zealand, Norway and Quebec (Canada).

Reader's Guide

Countries and subnational entities

This report covers the eight countries and subnational entities that participated in settings for children under age 3, and the corresponding data for those of them who also participated at the pre-primary level. In tables, countries and subnational entities are sorted in alphabetical order, with one exception: New Zealand's data represent only respondents included in the sample and not the full national population targeted by the survey. As such, they are placed at the bottom of tables for each level of ECEC and annotated (**) in tables, figures and the text.

One note is added to the information on the data for Israel:

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

High exclusion rates

For reasons of practicality, safety or economy (e.g. remote schools, unique demographic groups, school types, areas under civil unrest, natural catastrophe), the national survey population could be reduced by no more than 5% of the international target population of staff for the relevant level of ECEC (pre-primary or settings for children under age 3). However, not all countries and subnational entities could adhere to this rule:

- Germany: home-based settings (6.5% of staff) were excluded from the sample of settings for children under age 3.
- Israel: ultra-Orthodox settings (26.3% of settings) were excluded from the sample of pre-primary settings; the resulting staff exclusion rate is unknown.
- New Zealand: Kōhanga Reo (Māori language immersion environment for children and families) were excluded at both levels of ECEC (12.8% of pre-primary staff and 12.9% of staff in settings for children under age 3). Free kindergartens (3.1% of staff) and playcentres (13.8% of staff) were also excluded from the sample of settings for children under age 3.

Low response rates

Low response rates are a potential source of non-response bias. Non-response bias can occur if non-respondents are systematically different (in terms of their level of education, for example) from those who agree to participate in the survey.

Achieving strong survey response rates is a growing challenge around the world. In addition, the nature of the ECEC sector in many countries, particularly regarding settings for children under age 3, creates further

challenges for surveying this population. For instance, in many countries, the ECEC system is fragmented, with oversight and responsibility for the sector spread across several ministries and across levels of governance, with municipalities often having an important role. This creates challenges for even establishing a sampling frame at the national level in many places (as reflected in the high exclusion rates, in some cases) and complicates the process of contacting ECEC settings once the frame has been established. In addition, the private sector has a significant role in providing ECEC in many countries, which can limit the ability of central authorities to motivate participation. These challenges are compounded by the fact that countries often face ECEC staff shortages and ECEC settings are typically small: these features place an additional strain on recruiting ECEC settings to participate, as ECEC leaders may be wary of asking their staff to take the time to complete a survey.

Despite the many challenges, countries and subnational entities participating in TALIS Starting Strong 2024 invested important efforts in reaching their populations of ECEC staff and leaders, ultimately achieving a range of response rates (see Annex A). Nonetheless, data for ECEC systems that did not meet technical standards with respect to response rates are annotated (*) in tables and figures:

- settings for children under age 3: the Flemish Community of Belgium, Ireland, New Brunswick (Canada), Norway and Quebec (Canada)
- pre-primary settings (ISCED level 02): Germany, Ireland and Norway.

New Zealand also did not meet the TALIS 2024 technical standards with respect to participation rates; data from New Zealand are annotated separately (**) due to sparse responses that led to unanticipated exclusions for some segments of the target population, as described above. As a result of these broad exclusions, the samples could not be adequately adjusted to represent ECEC settings and staff in New Zealand overall (see Annexes A and B). For these reasons, the respondents in the samples from New Zealand represent only respondents included in the sample and not ECEC staff and settings from the whole country. In all other countries and subnational entities included in this report, data are weighted to represent the full population targeted by the survey; that is, the samples are constructed to be representative of ECEC staff and settings in the whole country or subnational entity.

Countries and subnational entities undertook non-response bias analyses to understand the likelihood of bias in the TALIS Starting Strong 2024 samples. These non-response bias analyses did not suggest a direct link between the levels of response rates and the likelihood of bias in the samples, although in many instances this was difficult to estimate due to a lack of data on ECEC staff and leaders from sources other than TALIS Starting Strong. Given the limited data available from or about the population of ECEC staff and leaders targeted by TALIS Starting Strong, information from all participating countries and subnational entities is presented in this report, despite not achieving the technical standards with respect to participation rates for all samples. All other technical standards were met (OECD, forthcoming^[2]).

Although countries and subnational entities are flagged (*) only in tables and figures and not in the text of this report (with the exception of New Zealand**), caution is required when interpreting estimates for samples that did not meet the TALIS technical standards with respect to response rates due to a higher risk of non-response bias.

Reporting conventions

Classification of levels of education and early childhood education and care

The classification of ECEC settings as pre-primary, as well as the other levels of education described in this volume, is based on the International Standard Classification of Education (ISCED). ISCED is an instrument for compiling statistics on education internationally. ISCED-2011 is the basis of the levels presented in this publication. It distinguishes the following levels of education:

- early childhood education (ISCED level 0)
 - early childhood educational development (ISCED level 01)
 - pre-primary education (ISCED level 02)
- primary education (ISCED level 1)
- lower secondary education (ISCED level 2)
- upper secondary education (ISCED level 3)
- post-secondary non-tertiary education (ISCED level 4)
- short-cycle tertiary education (ISCED level 5)
- bachelor's or equivalent (ISCED level 6)
- master's or equivalent (ISCED level 7)
- doctoral or equivalent (ISCED level 8).

Within early childhood education (ISCED level 0), settings classified under ISCED-2011 have an intentional educational component and aim to develop cognitive, physical and socio-emotional skills necessary for participation in school and society. Programmes at this level are often differentiated by age, with early childhood educational development serving children under age 3 and pre-primary education serving children from age 3 until entry into primary school. Pre-primary settings in TALIS Starting Strong meet the ISCED-2011 definition for ISCED level 02. Settings serving children under age 3 in TALIS Starting Strong were not required to meet the ISCED-2011 definition for ISCED level 01.

Despite the distinction made by ISCED-2011 within ISCED level 0, many countries and subnational entities, including several participating in TALIS Starting Strong, have an integrated ECEC system (see Chapter 2 of this report and Annex A in (OECD, 2025^[3]). In integrated ECEC systems, programmes from birth or age 1 until entry into primary school are offered together, generally with the same government oversight. For countries and subnational entities with integrated ECEC systems, the TALIS Starting Strong sampling strategy randomly split ECEC programmes that were expected to cover both age groups to be included in the sampling universe for one population of interest or the other. In this way, programmes could be sampled as part of the pre-primary sample or as part of the sample of settings for children under age 3, but the same programme would not be sampled for both levels of ECEC.

Next, staff were sampled within these settings if they were serving children within the designated level of ECEC (see Annex A). As a result, the sample of staff and leaders in settings for children under age 3 is representative of staff and settings providing services for this age group across all eight participating countries and subnational entities, regardless of whether an integrated system exists or not. Similarly, the sample of pre-primary staff and leaders is representative of staff and settings providing pre-primary education across all eight participating countries and subnational entities reported in this publication, regardless of whether an integrated system exists or not. Settings may also serve younger or older children, in addition to the level of ECEC for which they were sampled, regardless of whether the ECEC system overall is integrated. Throughout this volume, results are described according to whether they are from the pre-primary sample or the sample of settings for children under age 3, although this may not reflect the organisation of the overall ECEC system or the mix of ages of children served in a particular setting.

Settings

The report uses the term “settings” as shorthand to describe all ECEC settings, at both levels of ECEC. The specific programmes or settings vary across and within countries (see Chapter 2 for details on the types of settings in each participating country and subnational entity).

All officially registered, centre-based pre-primary programmes and all officially registered, centre- and home-based programmes serving children under age 3 in each participating country and subnational entity were considered in-scope for the TALIS Starting Strong 2024 sample. Home-based settings were not part of the population targeted by the survey at the pre-primary level (ISCED 02). However, in many countries and subnational entities, older children may also attend home-based ECEC settings.

Data were collected in home-based settings for children under age 3 in the Flemish Community of Belgium, Israel, New Brunswick (Canada), New Zealand** and Quebec (Canada) (Table 1). These settings typically involve a single staff member working at home with a small group of children, although there is wide variation in how this type of ECEC is organised, regulated and delivered to families. In contrast, centre-based settings generally include multiple classrooms/playrooms and staff members working in teams in facilities designed for group-based care, such as early learning centres, creches, kindergartens, preschools or schools. Centre- and home-based settings often have important differences in their management, financing and size in terms of the number of children served, among others. When interpreting TALIS Starting Strong 2024 results for the five countries and subnational entities that include a mix of centre- and home-based settings, it is important to bear in mind this mixed composition of the samples.

Table 1. Types of early childhood education and care settings for children under age 3 and their staff in TALIS Starting Strong 2024

Percentage of staff working in centre- and home-based settings and of centre- and home-based settings, based on sampling information for respondents

	Percentage of staff, from staff responses		Percentage of settings, from leader responses	
	Centre-based settings	Home-based settings	Centre-based settings	Home-based settings
Flemish Community (Belgium)*	81.3	18.7	41.3	58.7
Germany	100.0	0.0	100.0	0.0
Ireland*	100.0	0.0	100.0	0.0
Israel	88.6	11.4	49.7	50.3
New Brunswick (Canada)*	95.3	4.7	77.6	22.4
Norway*	100.0	0.0	100.0	0.0
Quebec (Canada)*	83.4	16.6	32.6	67.4
<i>New Zealand**</i>	97.6	2.4	96.8	3.2

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: Staff and leaders who responded to the main or short version of the combined questionnaire (CQM or CQS) are included in the percentage of both staff and leaders in this table.

Type of ECEC setting was identified based on the sampling frame and weighted according to data collected from respondents. Home-based data were not included in the sampling frame for Germany, Ireland or Norway. For more information, see Annexes A and B.

Source: OECD (2025), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/20af08c0-en>, Table D.3.1

Staff and leaders

The report uses the term “staff” as shorthand for the TALIS Starting Strong population of teachers, assistants, staff for individual children, staff for special tasks, interns and any other type of ECEC staff working regularly in a pedagogical way, providing learning opportunities or care, with children. Staff were asked to report on the role that best describes their work at their ECEC setting. Response options were translated and adapted to meet the needs of participating ECEC systems and these terms were mapped to the seven international categories of staff (Table 2): leaders, teachers, assistants, staff for individual

children, staff for special tasks, interns and other. In some systems, a direct translation of the international terms may not fully align with how staff describe themselves in their local language, for instance when the term “teacher” is not typically used to describe ECEC staff despite their primary responsibility for the care and education of a group of children.

Table 2. Early childhood education and care staff roles in the TALIS Starting Strong 2024 questionnaire

International staff categories and their descriptions as provided in the English source version of the staff questionnaire

ECEC setting leader	Individuals with the most responsibility for the administrative, managerial and/or pedagogical leadership at the ECEC setting
Teacher	Individuals responsible for the care and education of a group of children (e.g. educators)
Assistant	Individuals assisting with the care and education of children (e.g. assistants, auxiliary staff)
Staff for individual children	Individuals responsible for the care and education of specific children (e.g. integration aides, special needs assistants)
Staff for special tasks	Individuals responsible for specific subjects (e.g. music or physical education teachers)
Intern	Individuals acquiring further qualifications while working
Other	-

Note: This question was only included for respondents who received the staff questionnaire or the short version of the combined questionnaire. Respondents identified as the person with the most responsibility for administrative, managerial and/or pedagogical leadership in their setting (i.e. the “leader”) during the sampling process did not receive this question.

Source: OECD (2025^[4]), *TALIS Starting Strong 2024 Questionnaires*.

The report uses the term “leader” to identify the person who was identified as having the most responsibility for administrative, managerial and/or pedagogical leadership in their setting. In addition, leaders who also had staff duties (i.e. those who worked regularly in a pedagogical way with children in addition to their leadership roles, and those working alone) are included in both staff and leader data throughout this report, where possible.

Responses from staff and leaders come from four different questionnaire versions. The leader questionnaire (LQ) was given to the one individual identified during the sampling process as having the most responsibility for the administrative, managerial and/or pedagogical leadership at the ECEC setting. The staff questionnaire (SQ) was given to individuals with direct responsibilities (either on their own or in co-operation with colleagues) for the education and/or care of children in the ECEC setting. The main combined questionnaire (CQM) was used for leaders with staff duties, whereas the short version of the combined questionnaire (CQS) was used for respondents working alone (i.e. in one-person settings). The CQM and CQS include survey questions from the leader and staff questionnaires; respondents who answered either the CQM or CQS are included in the staff and leader data (see OECD (forthcoming^[2]), for more information). Countries and subnational entities could choose to use either the CQM or the CQS or both, to best match the profiles of ECEC staff and leaders in their contexts (Table 3).

Table 3. Use of different questionnaire types in TALIS Starting Strong 2024

Percentage of staff's and leaders' responses collected by questionnaire type

	Staff responses			Leader responses		
	Staff questionnaire (SQ)	Combined questionnaire main (CQM)	Combined questionnaire short (CQS)	Leader questionnaire (LQ)	Combined questionnaire main (CQM)	Combined questionnaire short (CQS)
Pre-primary settings (ISCED level 02)						
Flemish Community (Belgium)	100.0	0.0	0.0	100.0	0.0	0.0
Germany*	94.2	5.8	0.0	44.6	55.4	0.0
Ireland*	91.6	7.6	0.7	58.3	37.6	4.0
Israel	71.5	28.4	0.0	0.0	99.6	0.4
Norway*	98.2	1.8	0.0	86.1	13.9	0.0
<i>New Zealand**</i>	85.8	14.2	0.0	28.8	71.2	0.0
Settings for children under age 3						
Flemish Community (Belgium)*	94.9	4.2	1.0	82.1	14.8	3.1
Germany	91.8	8.2	0.0	41.6	58.4	0.0
Ireland*	94.2	4.8	1.0	66.8	26.6	6.6
Israel	77.4	11.1	11.5	0.0	49.4	50.6
New Brunswick (Canada)*	93.4	1.9	4.7	67.6	10.0	22.4
Norway*	98.7	1.3	0.0	88.0	12.0	0.0
Quebec (Canada)*	82.6	0.8	16.6	29.6	3.0	67.4
<i>New Zealand**</i>	87.2	12.8	0.0	37.1	62.9	0.0

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: Percentages are weighted (see Annex B).

Source: OECD (2025), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/20af08c0-en>, Table D.3.1

Leaders, whether responding to the LQ, CQM or CQS, provided information on the characteristics of their settings and their own work and working conditions. Where responses from leaders are presented in this report, they are usually weighted to be representative of ECEC settings. In some cases, leader responses are treated as attributes of staff working conditions (e.g. the size of the ECEC setting where staff work). In such cases, leaders' answers are analysed at the staff level and weighted to be representative of staff (see Annex B).

Results are presented only when estimates are based on at least 30 staff and/or 10 settings/leaders.

Self-reported data

TALIS Starting Strong results are based exclusively on self-reports from staff and leaders and, therefore, represent their opinions, perceptions, beliefs and accounts of their activities. As with any self-reported data, this information is subjective and may, therefore, differ from data collected through other means (e.g. administrative data or observations). The same is true of leaders' reports about setting characteristics and practices, which may differ from descriptions provided by administrative data at a national, subnational, regional or local government level.

While self-reported data allow respondents to share their beliefs and perceptions, there are also limitations when interpreting findings based on self-reported information:

- **Cultural response patterns:** Social and cultural backgrounds might systematically affect how individuals respond to questions (e.g. tending to respond in moderate or extreme ways) (van de Vijver and Leung, 1997^[5]).
- **Social desirability bias:** Individuals respond in ways that they think are viewed favourably but do not represent their true beliefs or actions (Krumpal, 2011^[6]).
- **Validity concerns:** Respondents might have to remember something that occurred a long time in the past, or their interpretation of a question is not consistent.

As a result, direct comparisons across countries and subnational entities using self-reported measures warrant caution.

Abbreviations

Coef.	Linear regression coefficient
Dif.	Mean difference
ECEC	Early childhood education and care
ISCED	International Standard Classification of Education
PPP	Purchasing power parity
S.D.	Standard deviation
S.E.	Standard error
% dif.	Percentage-point difference

Technical information

Causality

TALIS Starting Strong is not designed to establish causal relationships between two variables. All analysis presented in this report should be interpreted as uncovering the presence (or absence) of statistical association, i.e. whether or not variation in one variable (for instance, staff participation in professional development) is systematically associated with variation in another variable (for instance, staff practices to facilitate literacy development). These associations do not reflect a causality between two variables, i.e. whether making staff participate in professional development, all other things being kept equal, would cause a change in staff practices.

Symbols used in tables

Four symbols are used to denote non-reported estimates:

- **a:** The question was not administered in the country or subnational entity.
- **c:** There were too few observations to provide reliable estimates (i.e. there were fewer than 30 staff or fewer than 10 settings/leaders with valid data).

Note: In the case of contingency tables, where two or more questions are combined for reporting (e.g. Table CONTEXT.2_lq26_lq13), the number of observations is evaluated for each combination of categories individually.

- **m:** Data were collected but not included in the publication for technical reasons (e.g. there was no observation in the sample). Wherever a particular response option within the variable of interest was not selected by any respondent, a 0 is reported. In the case of contingency tables where there is no respondent in one of the disaggregated categories, the estimate for the variable of interest for that category is reported as “m,” rather than 0.

- **w:** Data were withdrawn at the request of the country or subnational entity concerned.

Rounding figures

Because of rounding, some figures in tables may not add up exactly to the totals. Totals, differences and averages are always calculated on the basis of exact numbers and are rounded only after calculation.

All standard errors in this publication have been rounded to one or two decimal places. Where the value 0.0 or 0.00 is shown, this does not imply that the standard error is zero, but that it is smaller than 0.05 or 0.005, respectively.

Standard errors

The statistics in this report represent estimates based on samples of staff and setting leaders, rather than values that could be calculated if every staff member and leader in every country or subnational entity had responded to the survey. Standard errors measure the degree of uncertainty of the estimates and are available in all annex tables (see Annexes B and C). To simplify the presentation of results and enhance readability, estimates reported in the text of this volume do not show the standard errors.

Focusing on statistically significant differences

This volume focuses on statistically significant values or differences, both from bivariate analyses and multivariable regressions. Statistically significant values are principally denoted in darker colours in figures and in bold font in tables. Unless otherwise specified, the significance level is set to 5%. See Annex B for further information.

Further technical documentation

For further information on TALIS Starting Strong documentation, instruments and methodology, see the *TALIS 2024 Technical Report* (OECD, forthcoming^[2]) and the *TALIS 2024 User Guide* (OECD, forthcoming^[7]).

Annex C provides a list of the tables of results referred to throughout the report. This report uses the OECD StatLinks service. All tables and charts are assigned a URL leading to a corresponding Excel[™] workbook containing the underlying data. These URLs are stable and will remain unchanged over time. In addition, readers of the e-books will be able to click directly on these links and the workbook will open in a separate window if their Internet browser is open and running.

Content of this report

This report is organised as follows:

- **Chapter 1** provides an overview of results from TALIS Starting Strong 2024 on settings for children under age 3, drawing on the evidence presented in Chapters 2-4 of this report on the implications of the fragmentation of ECEC systems for children's ECEC experiences.
- **Chapter 2** discusses the policy context, governance, organisation and key features across countries and subnational entities participating in TALIS Starting Strong 2024 for settings for children under age 3.
- **Chapter 3** examines how the organisation of work with children and staff practices with children shapes opportunities for high-quality ECEC in settings for children under age 3.
- **Chapter 4** examines how human and material resources are distributed across ECEC settings serving children under age 3.
- **Chapter 5** explores policies and mechanisms aimed at reducing quality variation across ECEC settings and promoting continuous quality improvement.
- **Annex A** contains information about the TALIS Starting Strong target populations, the samples and a summary of the adjudication outcomes for each sample, along with cautionary notes about the interpretations of results, whenever necessary.
- **Annex B** contains information about complex variables and statistical methods used to analyse data.
- **Annex C** contains the full list of online result tables.
- **Annex D** lists the members of the Informal Group on TALIS Starting Strong, a sub-group of the TALIS Governing Board, managers in the national study centres, members of the OECD Secretariat, members of the TALIS Consortium and members of TALIS expert groups that contributed to the TALIS Starting Strong 2024 cycle.

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Executive Summary

Early childhood education and care (ECEC) for children under age 3 has expanded across OECD countries, driven by the need to support parents' labour market participation and growing recognition of its role in early development. This expansion has relied on different forms of provision, including private and home-based ones, and split systems where different ministries are responsible for under-3 and pre-primary settings. As a result, the ECEC sector for children under age 3 is often fragmented. This fragmentation can support responsiveness to demand and enhance access to services, but may also lead to variations in quality.

This report draws on data from the 2024 Starting Strong Teaching and Learning International Survey (TALIS Starting Strong) for settings for children under age 3 to explore how countries can deliver more uniform and higher-quality ECEC amid rising enrolment. Participating countries and subnational entities reflect a range of fragmentation patterns that exist in many ECEC systems, including the coexistence of services that cater exclusively to children under age 3 and those that serve mixed age groups, the presence of both home-based and centre-based provision and varying mixes of public and private providers. Drawing on responses from the ECEC workforce, the report provides insights into the quality, accessibility and fragmentation of ECEC systems.

Access to ECEC for children under age 3 is growing, although inequalities in participation remain

- Participation in ECEC for children under age 3 has expanded in most OECD countries, although enrolment varies across countries and is lower than for older children. In many systems participating in TALIS Starting Strong 2024 for settings for children under age 3, more than 50% of children are enrolled at age 2. However, children under the age of 3 from more vulnerable families tend to participate less in ECEC.
- In Norway and two Canadian provinces (New Brunswick and Quebec), more vulnerable children, such as those from socio-economically disadvantaged homes or with special education needs, are equally represented across different types of settings, regardless of setting management, profit status, provision type or age group served. In other systems, vulnerable children are more likely to be enrolled in specific types of settings or provisions, typically public or private not-for-profit ones.

Integration across age groups brings trade-offs for young children

- In several systems, children under age 3 can be grouped with older children in so-called “integrated settings”. Staff working primarily with children under age 3 tend to make greater use of specific practices to meet children's needs relative to those working in more mixed age groups. Some systems, such as Norway, group younger children within the settings to combine the benefits of integration with more adaptive practices to facilitate the development of children under age 3.

- In the Flemish Community of Belgium and Israel, settings are specifically targeted at children under age 3. In these two systems, staff in settings for children under age 3 make a lower use of a range of numeracy development practices than those in pre-primary settings, although they make a greater use of some literacy development practices. Staff in settings for children under age 3 in the Flemish Community of Belgium and Israel also hold narrower beliefs about developmental priorities for children, which can make children's transitions across ECEC stages more demanding.

Mixed market provision leads to differences in resources for staff and children

- Systems can include publicly and privately managed ECEC settings and, within private provision, not-for-profit and for-profit ones. Private settings tend to be better resourced than public ones (e.g. in Israel and Norway), both in terms of material or human resources, and offer better staff working conditions. In Ireland, where all settings are private, for-profit ones also offer better working conditions.
- In most systems, staff practices with children are similar across settings, regardless of management and profit status. However, in the Flemish Community of Belgium and Ireland, staff in private for-profit settings report greater use of some practices. This difference disappears once staff and setting characteristics are taken into account, suggesting structural conditions explain the gap.

Home-based settings may provide different experiences for children and involve more demanding working conditions

- Staff in home-based settings often report valuing a broader range of skills and traits to be developed in children, and in some systems, such as the Flemish Community of Belgium and New Brunswick (Canada), they make greater use of practices to support children's development. However, they devote less time to interactions with children in some systems, as well as to documenting children's development and engaging with parents.
- This is likely due to heavier workloads and longer working hours, as a result of limited support staff. However, staff in home-based settings report higher satisfaction with their autonomy to shape practice or their salaries.

Some systems achieve stronger support to more vulnerable children within fragmented early education and care provision

- Staff working with more vulnerable children experience more demanding working conditions. Some systems, including Ireland, Norway and Quebec (Canada), have managed to better align resources with the needs of settings and children. This is reflected in higher numbers of staff per child, and fewer reported shortages as barriers to quality, in these systems.
- Across most systems, staff report using broadly similar practices regardless of children's backgrounds. Yet, in Germany, Israel, New Brunswick (Canada) and Norway, staff who work in settings or groups with a higher share of children from socio-economically disadvantaged homes make greater use of practices to support children's emotional development; in Israel they also use more numeracy development practices. This pattern suggests that within fragmented ECEC systems, it is possible to provide enhanced support to more vulnerable children.

1

Overview of results from TALIS Starting Strong 2024 for settings for children under age 3

This chapter provides an overview of the main findings from the 2024 Starting Strong Teaching and Learning International Survey (TALIS Starting Strong) on settings for children under age 3, drawing on the evidence presented in Chapters 2-4 of this volume. The synthesis examines the implications of the fragmentation of early childhood education and care (ECEC) systems for children under age 3 for children's ECEC experiences and highlights key insights at the country level.

Over the last decades, OECD countries have expanded the provision of ECEC, particularly for the years before entry into primary education, but also for younger children. Despite declining demographic trends, the ECEC sector for children under age 3 has been growing in many OECD countries, reflecting the need to support parents' participation in the labour market and interest from families for ECEC during children's first years of life. This expansion has often relied on different types of provision, including private and home-based ones, while in some countries, the ECEC sector is historically split between ECEC for children under age 3 and pre-primary education that fall under the responsibility of different ministries. As a result, the ECEC sector as a whole is fragmented, more so than other levels of education, and within the ECEC sector, provision for the youngest children is particularly fragmented. This fragmentation can enable greater adaptability to parents' and children's needs and enhance access to ECEC. However, it can also translate into variation in the quality of ECEC across types of provision and settings. As the first three years of children's lives are a sensitive period of rapid growth, ECEC for this age group needs to be adapted to the evolving needs of these children, but it should also be of high quality across different types of provision.

This report builds on data from TALIS Starting Strong 2024 for settings for children under age 3 to examine how more uniform and better ECEC quality can be achieved in a context of expanding enrolment to a more diverse range of children. This chapter provides an overview of the main findings of the analysis unfolded in Chapters 2-4 on the implications of the fragmentation of ECEC systems for children under age 3 for children's ECEC experiences and highlights country-specific insights. Chapter 5 of the report explores policies and mechanisms to reduce quality variation across ECEC settings and promote continuous quality improvement.

Expanding access while enhancing quality in fragmented ECEC systems: Key findings

This section presents key features of the organisation of the ECEC systems participating in TALIS Starting Strong for settings for children under age 3, highlighting some dimensions of fragmentation and the possible implications on quality variation. While the group of systems participating in TALIS Starting Strong for children under age 3 is too small to draw general conclusions on the implications of some types of fragmentation on variation in the accessibility and quality of ECEC provision, some patterns emerge. The remainder of this chapter discusses these patterns.

Despite rising enrolment in ECEC for children under age 3, inequalities in participation persist

Participation of children under age 3 in ECEC has expanded in most OECD countries but substantial variations between countries and by age remain. While many countries have reached almost universal coverage of ECEC at age 3, younger children participate less in ECEC, with differences among systems participating in TALIS Starting Strong for settings for children under age 3. Differences in participation rates for children under age 2 partly reflect differences in parental leave systems and societal views about child rearing in the early ages. Beyond these, low enrolment rates of children under age 3 are driven by direct barriers related to the availability, accessibility and affordability of ECEC services and indirect barriers stemming from limited information, complex administrative procedures and low awareness of the benefits of ECEC. Unmet demand prevails in a majority of ECEC settings in the countries and subnational entities participating in TALIS Starting Strong 2024. Barriers to ECEC participation disproportionately affect vulnerable families, and children under age 3 from disadvantaged socio-economic backgrounds tend to participate less in ECEC.

TALIS Starting Strong 2024 captures various types and degrees of fragmentation of the ECEC sector for children under age 3

In many systems, the governance, funding and organisation of ECEC provision is fragmented along several dimensions, which can result in uneven quality and pose challenges for authorities in charge of the sector for steering the system towards greater quality and equity. These dimensions include split governance between pre-primary education and ECEC for children under age 3; the coexistence of settings specifically for children under age 3 (called “non-integrated”) alongside settings serving children of all ages (called “integrated”); provision in home-based and centre-based settings; and the combination of public and private ECEC provision, including not-for-profit and for-profit providers.

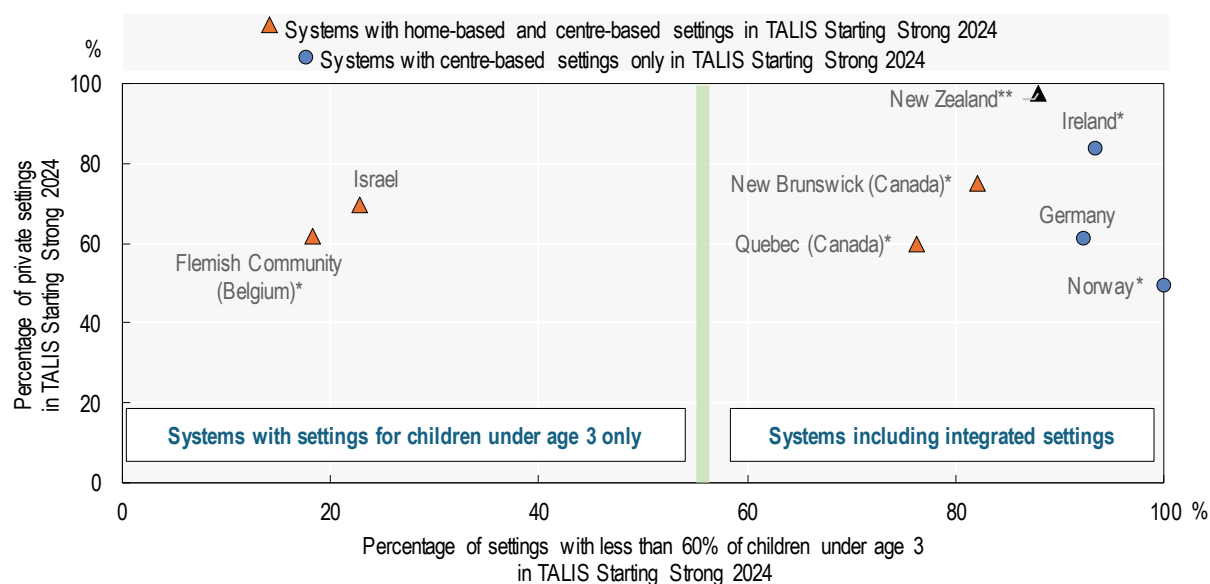
The diversity of settings and types of provision within the ECEC sector can support greater adaptability to families’ needs and facilitate the expansion of services to areas or children that may otherwise lack access. However, as noted above, such fragmentation is not without its challenges. While TALIS Starting Strong 2024 data do not capture parents’ views on the diversity and flexibility of provision, it provides insights into the links between fragmentation, accessibility and quality in ECEC systems, and how these dynamics can drive unequal opportunities for children.

Countries and subnational entities participating in TALIS Starting Strong 2024 represent several of the types of fragmentation that exist within many ECEC systems (Figure 1.1):

- **Systems with integrated and non-integrated settings.** All systems except the Flemish Community of Belgium and Israel have integrated settings. All settings are integrated in Norway.
- **Systems with home-based settings in addition to centre-based ones.** This is the case in the two Canadian provinces, the Flemish Community of Belgium, Israel and New Zealand**. Germany, Ireland and Norway also have home-based settings, but the home-based sector was excluded from data collection for TALIS Starting Strong 2024 (OECD, forthcoming^[1]).
- **Systems with different mixes of public and private provision.** The percentage of private settings is the lowest in Norway while, according to official sources, all settings are private with a combination of private not-for-profit and for-profit settings in Ireland, New Zealand** and Quebec (Canada).

Figure 1.1. Types of ECEC provision for children under age 3 covered in TALIS Starting Strong 2024

Based on leader reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The figure only covers data from TALIS Starting Strong 2024. Germany, Ireland and Norway have home-based settings, but these are not covered in TALIS Starting Strong 2024. In Ireland, New Zealand** and Quebec (Canada), according to official sources, all ECEC settings are privately managed; the results should, therefore, be interpreted with caution.

ECEC: early childhood education and care.

Source: OECD (2025^[2]) and OECD (2025), *TALIS Starting Strong Database 2024*, Tables D.3.1 and C.2.1.

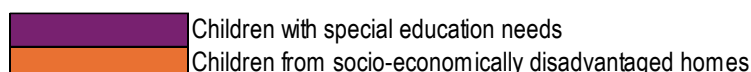
StatLink  <https://stat.link/tphn0m>

More vulnerable children tend to be concentrated in specific types of settings

More vulnerable children, such as those from socio-economically disadvantaged homes or with special education needs, tend to be concentrated in a limited number of settings and are more likely to attend specific types of provision in some systems (Table 1.1). While the share of children from socio-economically disadvantaged homes in ECEC varies across the Flemish Community of Belgium and the two Canadian provinces, these children are concentrated in a limited subset of settings in all three systems. In addition, in the Flemish Community of Belgium and Ireland, a higher percentage of not-for-profit settings serve 10% or more of children from socio-economically disadvantaged homes while in Israel this is the case for public settings. While ECEC settings enrol relatively small shares of children with special education needs, possibly reflecting later formal diagnosis, these children also tend to be concentrated in some types of provision, including private not-for-profit settings in the Flemish Community of Belgium, Ireland and New Zealand** and private for-profit settings in Israel. In contrast, no differences are observed in the enrolment of more vulnerable children in Germany, Norway and the two Canadian provinces between settings with different management and profit status.

Table 1.1. Types of ECEC settings for children under age 3 with higher percentages of more vulnerable children

Differences in the percentage of settings for children under age 3 with 10% or more children with special education needs or from socio-economically disadvantaged homes, by setting characteristics



	Public settings	Private for-profit settings	Private not-for-profit settings	Home-based settings	Integrated settings
Flemish Community (Belgium)*					
Germany					
Ireland*					
Israel					
New Brunswick (Canada)*					
Norway*					
Quebec (Canada)*					
New Zealand**					

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The table synthesises evidence from comparisons between the percentage of settings with 10% or more vulnerable children and settings with fewer such children by setting characteristics (see Chapter 2). It indicates the types of settings in which more vulnerable children are more commonly represented. Findings refer to differences between settings that are statistically significant. Private not-for-profit settings in New Zealand** have higher percentages of children with special education needs, as depicted in grey.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.2.9, C.2.10, C.2.11, C.2.12, C.2.13, C.2.16, C.2.17, C.18, C.19 and C.2.20.

StatLink <https://stat.link/uvalkj>

The divide between public versus private or private not-for-profit versus for-profit settings leads to differences in structural quality but less so in process quality

The divide between public versus private or private not-for-profit versus for-profit leads to differences in structural quality in most systems (Table 1.2). Private settings tend to be better resourced (e.g. Israel) in terms of material or human resources. A key question is whether differences in structural quality translate into or are accompanied by differences in staff practices with children, or process quality. In the Flemish Community of Belgium and Ireland, staff in private for-profit settings report greater use of some intentional practices to support children's development. When differences in staff training, experience, beliefs and other structural quality conditions are accounted for, differences in practices between management are no longer visible, suggesting differences in practices used in these systems stem from differences in structural conditions or the characteristics of the children enrolled. In contrast, staff in public or private not-for profit settings in Germany and Israel make greater use of some practices to support children's development while those in private not-for-profit settings in Ireland and Quebec (Canada) appear to rely less frequently on specific practices when staff and setting characteristics are considered. This indicates that factors specific to these types of settings may shape differences in practices across settings with varying management structures and profit status.

Table 1.2. Types of fragmentation of the ECEC sector and relationships with features of ECEC quality in settings for children under age 3

Direction of statistically significant associations between indicators of structural and process quality in ECEC and types of ECEC settings for children under age 3

Association with the type of ECEC setting:

- Positive
- In both directions
- Negative

PU Public settings
HB Home-based settings
PNP Private not-for-profit settings
INT Integrated settings

	Flemish Community Belgium*	Germany	Ireland*	Israel	New Brunswick (Canada)*	Norway*	Quebec (Canada)*
Resources and workforce capacity	PNP HB	PU INT	PNP INT	HB PU PNP	PU	PU	
Staff working conditions	HB	INT	INT PNP	HB PNP	HB		
Staff professional beliefs	HB		PNP	HB PU	HB		
Practices with children	HB PNP	INT	INT PNP		HB INT	INT	

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: A circle indicates that one or more statistically significant differences exist between the indicated setting type and a reference category in relation to the quality indicators included in each area. The reference categories are as follows: privately managed settings (as the reference category) for publicly managed settings; private for-profit settings for private not-for-profit settings; centre-based settings for home-based settings; non-integrated settings for integrated settings. For each area, positive associations (i.e. greater use of practices in home-based settings in the Flemish Community of Belgium) are shown in the upper (dark blue) row and negative associations (i.e. lower use of practices in private not-for-profit settings) are shown in the bottom (light blue) row. The middle row (orange) indicates setting types for which both positive and negative associations are found within a quality area. The four quality areas draw on evidence from Chapters 3 and 4 and cover structural and process quality aspects. The area "Resources and workforce capacity" includes indicators on leaders' reports about perceived shortages or inadequacy of material and human resources in their settings, staff experience and qualifications. The area "Staff working conditions" includes indicators on staff satisfaction with work, level of autonomy and terms of employment, and reported stress. The area "Staff professional beliefs" reflects the skills or traits staff value as developmental priorities for children. The area "Practices with children" is based on measures of staff practices supporting children's early literacy, numeracy, social and emotional development, and child-centred planning as well as specific child-centred and responsive practices. For staff practices, «INT» in the table indicates that one or more statistically significant differences are observed between staff working in target groups with more than 60% of children under age 3 (reference category) to those working in groups with 60% or fewer children under age 3, instead of referring to non-integrated versus integrated settings.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, based on the syntheses of analyses presented in Chapters 3 and 4.

StatLink  <https://stat.link/zbdg17>

Overall, findings from TALIS Starting Strong suggest that management type and profit status might exacerbate inequalities between children: in some systems, vulnerable children are more likely to attend some types of provision while structural and, to some extent, process quality tend to be lower in the corresponding settings attended by these children. However, there are exceptions: some countries or subnational entities have managed to build on mixed-market ECEC provision with no clear sign of risks of negative implications for vulnerable children. In New Brunswick (Canada), Germany and Norway, more vulnerable children are equally represented in different types of settings, regardless of setting management and profit status. While structural quality may differ between public and private settings or between private for-profit and private not-for-profit settings in these systems, these variations do not translate into fewer resources in settings with higher shares of more vulnerable children. At the same time, as more children enter ECEC before the pre-primary level, differences in structural quality between public and private settings or between private for-profit and private not-for-profit settings may become detrimental to more vulnerable children if these children are concentrated in specific types of settings.

Children in home-based settings may experience different staff practices than those in centre-based settings

In most systems, staff in home-based settings value a broader range of skills to be developed in children, but they devote less time to interactions with children in some systems, as well as to documenting children's development and engaging with parents. This is likely due to heavier workloads and longer hours resulting from challenges in balancing care with other responsibilities and limited supporting staff, which is reflected in lower satisfaction with their terms of employment. On the other hand, staff in home-based settings report higher satisfaction with their salaries, work at the setting or autonomy to shape practice than staff in centre-based settings.

However, in the Flemish Community of Belgium and New Brunswick (Canada), data suggest stronger practices in home-based settings, aligned with staff professional beliefs about children's development. In the Flemish Community of Belgium, staff in home-based settings also tend to be more experienced and train more in relevant areas for children's development. When staff beliefs, education and experience, and setting characteristics (e.g. setting location and profit status) are accounted for, staff in home-based settings in the Flemish Community of Belgium still report a greater use of practices that facilitate literacy and numeracy development than staff in centre-based settings. These results point to the potential role of specific structural factors associated with home-based provision that might result in differences in practices.

The degree of integration of the ECEC system shapes the experiences of children under age 3 in ECEC settings

In systems with split governance (the Flemish Community of Belgium) or where settings are not integrated (Israel), staff in settings for children under age 3 generally have lower qualifications than staff in pre-primary education and hold different professional beliefs about developmental priorities for children. Staff who work with younger children tend to have narrower beliefs about the range of skills to develop in children, placing less emphasis on the development of foundational cognitive skills, including early learning of content areas and executive function. Differences in professional beliefs are potentially reflected in differences in practices used with children, as staff in settings for children under age 3 make less use of a range of numeracy development practices, although they more often use some practices to support early literacy development, such as reading books or singing songs with or to the children.

In contrast, staff working in integrated settings might not sufficiently adapt their practices to the needs of the youngest children. In integrated settings, staff commonly work with mixed age groups of children aged up to six years old or above. In most systems, staff in integrated and non-integrated settings hold similar qualifications; only in Germany do integrated settings report a higher share of staff with at least a bachelor's

degree. Staff in mixed age groups (e.g. in Germany and Ireland) tend to make less frequent use of a range of practices to facilitate children's development, including some child-centred, responsive practices adapted to children under age 3. This means that children under age 3 in integrated settings may experience practices that are less aligned with their developmental needs. Grouping the youngest children for activities within integrated settings (e.g. in Norway) can be a way to attract highly qualified staff while responding to the needs of the youngest children.

ECEC staff working with more vulnerable children experience more demanding working conditions, which may constrain their ability to adapt their practices to children's needs

Staff working with more vulnerable children experience more demanding working conditions. Reported barriers to quality provision that relate to physical and material resources tend to be more common in settings serving higher shares of vulnerable children (e.g. in the Flemish Community of Belgium and Israel). These settings experience more pronounced human resource constraints: they benefit from fewer experienced staff (Germany and Israel) and leaders more frequently report staff shortages as barriers to quality (Israel and New Brunswick [Canada]). In other systems, however, resources tend to be better aligned with the needs of settings and children served: in Ireland, the number of staff per child is higher in settings with higher shares of more vulnerable children while in Norway and Quebec (Canada), leaders in these settings less frequently report staff shortages as barriers to quality.

Resource constraints may underlie the higher levels of stress reported by staff in settings serving more vulnerable children, which may in turn shape staff intentions to leave their role. Addressing parents' concerns, documenting children's development and administrative work are more frequently reported as sources of stress for staff who work with more vulnerable children (e.g. the Flemish Community of Belgium, Ireland, Israel and New Brunswick [Canada]). In some of these systems (Ireland and Israel), staff in settings serving higher shares of vulnerable children are more likely to consider leaving their role for health- or family-related reasons.

In these contexts, children experiencing higher levels of vulnerability may receive less consistent support across some areas of development. In most ECEC systems, staff report working in broadly similar ways with children regardless of their background. Resource constraints observed in most systems may explain the lack of more systematic extra support for vulnerable children that staff working with these children bring through their practices. Only in a few countries and subnational entities do staff appear to make greater use of practices to facilitate children's development when working with more vulnerable children – particularly children from socio-economically disadvantaged homes. In addition, once a range of staff and setting characteristics are accounted for, in some systems (Ireland, Israel and Quebec [Canada]), staff report less frequent use of certain practices when working with higher proportions of children from socio-economically disadvantaged homes. Similarly, some practices are reported less frequently when staff work with more children with special education needs (New Zealand** and Quebec [Canada]).

Country- and subnational entity-level insights on fragmentation in ECEC systems and inequalities in children's experiences

This section summarises results from Chapters 2-4 from TALIS Starting Strong 2024 for settings for children under age 3 for participating countries and subnational entities. It focuses on the implications of the fragmentation of ECEC systems for children's ECEC experiences and risks of inequalities in children's exposure to quality ECEC.

Flemish Community of Belgium

In the Flemish Community of Belgium, ECEC is split between pre-primary education and provision for children under age 3. The ECEC sector for children under age 3 is fragmented, with home-based and centre-based and public and private provision. A majority of children under age 2 are enrolled, but there is also unmet demand: almost 50% of leaders report there were children who wanted to enrol but could not due to a lack of places and were not put on a waiting list. Settings, on average, enrol a relatively large share of children from socio-economically disadvantaged homes and these children are more likely to be enrolled in private not-for-profit ECEC settings. Compared to other systems in TALIS Starting Strong 2024, settings enrol a relatively low share of children with special education needs, and these children are more likely to be in private not-for-profit and home-based settings. The fragmentation of the ECEC sector translates into differences in resources and experiences provided to children but enables some adaptation to children's needs. More specifically:

- Staff for children under age 3 have lower qualifications and less experience than staff in pre-primary education. Staff in both parts of the sector hold different beliefs on what skills are important for children to develop: staff in pre-primary settings value a mix cognitive, social and emotional skills and learning attitudes while those in settings serving children under age 3 place less emphasis on early learning of content areas (and train less in this area), the ability to stay focused, autonomy and responsible decision making, although they value school preparedness. Staff practices also differ between the two sectors, with pre-primary staff making greater use of a range of literacy and numeracy development practices.
- Home-based settings for children under age 3 appear to provide supportive environments to children, particularly compared to large centre-based settings. While there is broad agreement among staff regarding the importance of self-care and physical skills for children's development, staff in home-based settings are more inclined to value such skills than those in centre-based settings. Staff in home-based settings also tend to more strongly consider a range of social and emotional skills, including the ability to communicate with others, emotional regulation and open-mindedness. They are also more experienced and receive more training on supporting child development in comparison to staff in centre-based settings. Aligned with their different professional beliefs, staff in home-based settings report a greater use of practices that facilitate children's development. On the other hand, staff in home-based settings devote less time to documenting children's development and engaging with parents, potentially reflecting the absence of support staff that would enable them to more easily perform such tasks.
- Staff report a lower use of practices in several areas of children's development when they work with a higher share of children from socio-economically disadvantaged homes in the target group. When staff beliefs, education and experience are considered, these differences largely disappear. However, staff are more likely to adapt activities in response to children's natural rhythms (e.g. hunger, fatigue) daily when they work with more children from socio-economically disadvantaged homes. Reported barriers related to physical and material resources tend to be more common in settings serving higher shares of children from socio-economically disadvantaged homes and staff in these settings report higher levels of stress due to addressing parents' concerns.

Germany

In Germany, the ECEC sector is under one ministry, although states have their own ministry responsible for most aspects of ECEC (e.g. curricula, funding). There are integrated settings for all ages of ECEC in addition to specific settings for children under age 3. ECEC is provided in public and private settings. Home-based settings in Germany are not covered by TALIS Starting Strong 2024. Enrolment rates for children under age 3 are lower than in most other countries participating in TALIS Starting Strong 2024 for settings for children under age 3, although participation rates for children at age 2 exceed 70%. In

Germany, settings for children under age 3 include moderate shares of children from socio-economically disadvantaged homes and with special education needs. These children are more likely to be in integrated settings. There are signals that providing high-quality ECEC adapted to the youngest children might be more challenging in integrated settings. However, staff working with more vulnerable children adapt their practices to these children. More specifically:

- Integrated settings have a higher share of highly qualified staff than non-integrated settings but also report greater staffing, physical and material constraints. Barriers to quality due to staff shortages are pronounced in Germany while staff absences and shortages of competences to work with vulnerable children are particularly acute in integrated, larger settings. Integrated settings also report lower numbers of staff per child and higher staff training needs for supporting vulnerable children. Consistent with these patterns, staff reports of stress due to multitasking and administrative tasks are higher in integrated settings. Noise and infrastructure challenges are also more frequent in these settings. Children under age 3 in integrated settings may experience fewer adaptive, child-centred practices than those in non-integrated settings. Within integrated settings, children are generally not grouped by age. Despite an overall lower use of literacy practices compared to other countries and subnational entities, staff working with a majority of children under age 3 (which is more often the case in non-integrated settings), make greater use of literacy development practices than other staff. For instance, they are more likely to read books to children daily and to encourage pre-verbal children to point to pictures when looking at a book daily than those working in mixed age groups. By contrast, staff working with mixed age groups report greater use of numeracy-related practices, potentially reflecting the presence of older children and the stronger emphasis they place on developing a broader set of skills in children, including school preparedness.
- Staff in public and private settings for children under age 3 report similar practices with children. Yet once staff and setting characteristics are accounted for, setting management and profit status is associated with a differential use of practices. Staff in public and private not-for-profit settings appear to make greater use of practices to support children's literacy development and child-centred planning and staff in private non-profit settings also use more emotional development practices than staff in private for-profit settings.
- Staff working with more vulnerable children in settings for children under age 3 hold different beliefs about developmental priorities for children. Staff in settings who serve more children from socio-economically disadvantaged homes support developing school preparedness and citizenship, tolerance and openness to other cultures more while those in settings with more children with special education needs tend to value more highly the development of school preparedness, executive functions and a range of social and emotional skills (engaging with others, emotional regulation, citizenship, tolerance and openness to other cultures, and creativity). Staff who work in groups with a higher share of children from socio-economically disadvantaged homes make greater use of emotional and numeracy development practices. Yet when staff beliefs, education and experience, and other setting characteristics are accounted for, staff use of practices appears to be unrelated to children's vulnerabilities.

Ireland

Most ECEC settings in Ireland are under the same ministry and settings for children under age 3 are integrated. Enrolment rates of children under age 3 are relatively low, which translates into these children being in mixed age groups, although primary education typically starts at the age of 5. The average percentage of children from socio-economically disadvantaged homes and with special education needs enrolled in ECEC settings is relatively high due to targeted funding and policies towards these children. The sector is fully private, with not-for-profit and for-profit settings. Vulnerable children are more likely to

be in not-for-profit centres. A minority of regulated settings are home-based and were excluded from TALIS Starting Strong 2024. More specifically:

- Gaps in resources between for-profit and not-for-profit centres are observed, with for-profit centres being better resourced in some respects. Some infrastructure and material challenges are more frequent in not-for-profit settings although not-for-profit settings are more likely to report adequate ventilation. Employment conditions differ between the two sectors: fixed-term or temporary employment is more common in not-for-profit settings while self-employment is more common in for-profit settings where staff report higher satisfaction with their salary. However, for-profit centres employ a higher share of less experienced staff, whereas not-for-profit centres have a higher share of assistants. Barriers to quality related to shortages of staff with competences to support children from socio-economically disadvantaged homes are more pronounced in private for-profit settings; the number of staff per child is also lower in these types of settings.
- The fragmentation of the sector between for-profit and not-for-profit settings is likely to lead to differences in children's experiences. A range of foundational cognitive skills (e.g. early learning of content areas) are more highly valued by staff in private for-profit settings. Staff in for-profit settings report higher use of literacy development practices.
- There are indications that staff face challenges in allocating sufficient time to vulnerable children and adapting practices to those children's needs. In settings serving more children from socio-economically disadvantaged homes, staff more frequently report excessive workload related to documenting children's development, pointing to additional administrative demands. In these settings, staff also devote a lower share of their time to contact with children. Addressing parents' or guardians' concerns is more often reported as a source of stress in settings serving higher shares of children with special education needs. While child-staff ratios tend to be more favourable in settings serving more vulnerable children, these findings suggest that such targeted resources may not be sufficient to address the higher demands associated with supporting these children. Staff working with more children from socio-economically disadvantaged homes tend to respond less to non-verbal invitations to play when staff and setting characteristics are considered, with little evidence of other differential use of practices in relation to children's socio-economic background.

Israel

Israel has advanced the integration of the ECEC sector by placing all settings under the same ministry. However, children under age 3 are in settings specific to this age group. ECEC provision is also split between home-based and centre-based settings and private versus public settings. A large share of children at age 2 are enrolled in ECEC and settings enrol relatively high shares of children from socio-economically disadvantaged homes. These children are more likely to be in public and home-based settings. Settings enrol a relatively low share of children with special education needs, and these children are more likely to be in private for-profit settings. More specifically:

- Reflecting the historical split of the system, staff are less qualified in settings for children under age 3 than in pre-primary settings. Beliefs and practices also differ in the two parts of the sector. Staff in pre-primary settings value more the development of children's early cognitive skills and executive functions. Yet staff in settings for children under age 3 are more likely to read books daily and ask questions when reading books to children than staff in pre-primary settings, although they rely less on practices to support numeracy development.
- Shortages of space, play and learning materials are more frequent in home-based settings. While staff report higher satisfaction with their salary than those in centre-based settings, they are less satisfied with their terms of employment. Staff in centre-based settings report more stress related to multitasking. Although staff in home-based settings report higher qualifications and value a

broader range of skills to be developed in children than staff in centre-based settings, they employ practices in similar ways as centre-based staff.

- Children may experience ECEC of varying quality depending on the setting they are enrolled in and the type of vulnerability they experience. Public settings that enrol higher shares of children from socio-economically disadvantaged homes face greater staffing and material constraints and their staff have narrower views on children's developmental priorities. While more staff in settings with more socio-economically disadvantaged children report participating in recent professional development in supporting children's social and emotional development, these children might receive less direct attention from staff and less exposure to staff practices that facilitate children's development. In contrast, children with special education needs are more often in private for-profit settings where there tend to be more staff and staff are more experienced. Staff working with more children with special education needs place greater importance on the ability to communicate as well as school preparedness. When staff and setting characteristics are accounted for, staff in settings with more children with special education needs in Israel appear more inclined to adapt their practices and make greater uses of emotional and literacy development as well as some child-adaptive practices.

Norway

Norway is the most integrated system among the countries and subnational entities participating in TALIS Starting Strong 2024, with all settings under the same ministry. Staff are highly qualified across the ECEC sector. All settings are for all age groups, but children under age 3 are grouped within these settings. A minority of settings are home-based and were not included in the survey. The sector includes public and private providers but the data do not reveal differences in the likelihood to enrol a high share of vulnerable children between these two parts of the sector. Enrolment rates are high in Norway and unmet demand is infrequent. No major differences in the various parts of the ECEC sector appear. More specifically:

- Some differences in resources appear between public and private settings. Privately managed settings employ higher shares of highly qualified staff. Public settings have more assistants and more experienced staff. Public settings report more staff shortages (e.g. staff absences, shortages of qualified staff or staff relative to the number of enrolled children) and limitations to professional development as barriers to quality.
- Children from different socio-economic backgrounds appear to experience similar staff practices to support learning and development in ECEC settings. Barriers to quality related to shortages of staff with competence in working with children from socio-economically disadvantaged homes are less frequently reported in settings serving more such children. Staff in settings with more children from socio-economically disadvantaged homes participate more in professional development to support children's social and emotional development, place a higher emphasis on developing children's joy for exploration and make greater use of practices to support children's emotional development.
- Within the integrated system, grouping the youngest children within settings enables staff to adapt their practices to children's age. Staff who work primarily with children under age 3 are more likely to encourage pre-verbal children to point to pictures when looking at a book daily, to respond to non-verbal invitations to play and to adapt daily activities to natural rhythms than those working in mixed age groups. School preparedness is more highly valued by staff in pre-primary settings than in settings serving children under age 3.

New Brunswick and Quebec (Canada)

In New Brunswick and Quebec (Canada), ECEC for children under age 3 is mostly provided in integrated settings that can be home-based or centre-based and, in New Brunswick, publicly or privately managed. In Quebec, all settings are private. A large majority of children are enrolled at age 2 in Quebec while no data are available for New Brunswick, but unmet demand is frequently reported in this province. The average percentage of children from socio-economically disadvantaged homes in ECEC settings is low in Quebec and higher in New Brunswick while the percentage of children with special education needs is high in both provinces. These two categories of children are highly concentrated in some settings in the two provinces. Apart from this, no differences are observed in the likelihood for vulnerable children to be concentrated in some types of settings (e.g. public vs. private, home-based vs. centre-based). More specifically:

- Staff in New Brunswick appear to adapt their practices more systematically to the diversity of the children they work with while in Quebec, children with higher vulnerability may less frequently receive support in some areas of development. In New Brunswick, staff working in settings with more children from socio-economically disadvantaged homes report more frequent use of practices to support children's emotional development. When working with more children with special education needs, staff in New Brunswick also place more importance on developing children's ability to communicate but consider early learning of content areas to be less important. By contrast, staff in Quebec report lower use of different practices to support children's development when working with more children with special education needs. Furthermore, in New Brunswick, staff in settings with a higher concentration of children with special education needs devote less time to documenting children's development and on parental engagement, which may reflect the higher levels of stress due to an excessive administrative workload in these settings.
- In New Brunswick, staff practices differ between home-based and centre-based settings. Home-based staff rely more extensively on practices to support children's literacy, numeracy, and social and emotional development relative to staff in centre-based settings. This aligns with their professional beliefs about developmental priorities for young children that focus more on a range of social and emotional skills for children's development compared to staff in centre-based settings. Home-based staff in this province also value more self-care and physical skills. Furthermore, staff in home-based settings devote less time documenting children's development but also engaging with parents than those in centre-based settings. While staff in home-based settings are more likely to report higher salary and job satisfaction, they also more frequently report excessive administrative work and documentation demands as sources of stress. Once staff and setting characteristics are accounted for, home-based and centre-based staff in New Brunswick appear to make similar uses of practices with children. In Quebec, the small sample size does not allow for this type of analysis.
- In New Brunswick, publicly managed settings more frequently report shortages of staff relative to the number of children enrolled as barriers to quality, whereas privately managed settings are more likely to report barriers related to shortages of staff with competences to support children from diverse language backgrounds. Needs for professional development focused on early learning are more commonly reported in publicly managed settings. Yet structural differences between the two types of settings are not reflected in differences in practices used with children.

New Zealand

In New Zealand**, ECEC is provided in home-based and centre-based settings that are all privately managed, either for-profit or not-for-profit. Children under age 3 are in integrated settings and in target groups with children of different ages. A majority of children are enrolled at age 2 but a minority of children under age 2 are enrolled. On average, settings enrol a high share of children from socio-economically

disadvantaged homes and with special education needs; however, these children do not appear to be very concentrated in some settings. Due to the lack of representativeness of the TALIS Starting Strong 2024 data for New Zealand**, analysis on features of the fragmentation of the sector is not possible.

References

- OECD (2025), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/20af08c0-en>. [2]
- OECD (forthcoming), *Teaching and Learning International Survey (TALIS) 2024 Technical Report*, OECD Publishing, Paris, forthcoming. [1]

2 Key features of early childhood education and care for children under age 3

This chapter presents key features of early childhood education and care (ECEC) for children under age 3 using system-level information and data from the 2024 Starting Strong Teaching and Learning International Survey (TALIS Starting Strong). It discusses the policy context, governance, organisation and key features across countries and subnational entities participating in TALIS Starting Strong 2024 for settings for children under age 3, highlighting the types and levels of fragmentation across systems and assessing whether fragmented ECEC systems risk generating inequalities.

Key findings

- **Enrolment in ECEC of children under age 3 has increased but varies among OECD countries**, particularly for the youngest children. In systems participating in TALIS Starting Strong 2024 for settings for children under age 3, more than 50% of children are enrolled at age 2, except in Ireland; data are missing for New Brunswick (Canada).
- **Inequalities in ECEC participation according to socio-economic background persist** for children under age 3 and have been documented for most participating systems.
- **In all participating systems, a large majority of settings report that some children could not enrol in their ECEC setting due to a lack of places**, particularly in urban areas. Compared to the pre-primary level, settings are more likely to indicate that children were not put on a waiting list in case of a lack of places, particularly in home-based and small settings, reflecting less transparent information on places for the youngest children.
- **Private expenditure plays a stronger role in funding ECEC provision for children under age 3 relative to pre-primary** and higher levels of education in most OECD countries with available data. Among systems participating in TALIS Starting Strong 2024 for settings for children under age 3, private expenditure accounts for more than 70% of total funding at ISCED 0 level in Israel but plays a more limited role (less than 20% of total funding) in Germany and Norway.
- **Participating systems differ in their organisation and governance. However, all systems have different types of ECEC settings or provision, leading to a fragmentation of the sector:** integrated (covering children under age 3 and above) versus non-integrated (specific to children under age 3); private versus public; for-profit versus not-for profit; and centre-based versus home-based.
- **The level of integration of ECEC systems differs among participating systems.** Norway is the most integrated system, with integrated governance and all settings serving all ages before entry into primary. The Flemish Community of Belgium has a split system with split governance and split settings for children under age 3 and pre-primary children. Other systems show different types of organisations between these two extremes.
- **Leaders of ECEC settings have major responsibilities for a large range of tasks in the under age 3 sector.** In Ireland, Israel and New Brunswick (Canada), they also have financial responsibilities, including setting staff salaries.
- **In all participating systems, children from socio-economically disadvantaged homes are concentrated in some ECEC settings.** This is particularly the case in the Flemish Community of Belgium and Quebec (Canada), where 20% or more of settings enrol more than twice the average percentage of children from socio-economically disadvantaged homes enrolled. In the Flemish Community of Belgium and Israel, private ECEC settings are less likely than public ones to enrol large shares of children from socio-economically disadvantaged homes. In Ireland, this is the case for private for-profit settings compared to not-for-profit ones.
- **Children with special education needs are also concentrated in some ECEC settings**, particularly in Quebec (Canada). This is less the case in Ireland and New Brunswick (Canada). However, in Ireland, private not-for-profit settings are more likely to enrol children with special education needs than private for-profit settings.

OECD countries have expanded the provision of ECEC for children under age 3 over the last decades through several approaches. Some countries have relied on various types of provision, such as private and home-based ones, together with private funding from families. Others have extended ECEC for older children to the youngest ones. Approaches have been guided by historical and cultural contexts as well as the amount of public funding allocated to the sector. As a result, the sector is fragmented in many countries, with a variety of types of provision and providers and possibly several ministries involved, which is generally much less the case for higher levels of education.

Countries and subnational entities participating in TALIS Starting Strong 2024 for settings for children under age 3 differ by the contextual factors that shape their ECEC policies and the state of development of ECEC for children under age 3. While a limited number of systems have participated, these systems reflect the possible types of fragmentation of ECEC provision: by management (e.g. public, private not-for-profit, private for-profit) and types of services (e.g. home-based versus centre-based, integrated versus split by age). Comparing these systems sheds light on the different ways to expand the under age 3 sector and the possible implications of doing so.

This chapter builds on system-level data together with data collected in TALIS Starting Strong 2024 to investigate the policy context, governance and key features of ECEC provision for countries and subnational entities participating in TALIS Starting Strong 2024 for settings for children under age 3. The chapter highlights key areas of fragmentation of ECEC provision whose consequences are analysed in the following chapters. TALIS Starting Strong 2024 offers unique comparative data on some key features of ECEC systems; however, it is important to note that this information may differ from descriptions provided by administrative data. This chapter addresses the following questions:

- What are the recent trends in ECEC enrolment of children under age 3 and what gaps remain in children's participation in ECEC? How has the investment in ECEC for children under age 3 evolved and what is the role of public versus private funding?
- How are ECEC systems for children under age 3 organised, managed and governed in participating countries and subnational entities? What is the size of the private sector? To what extent are ECEC systems fragmented in several types of ECEC provision?
- What is the level of unmet demand? Does it vary across types of ECEC provision? What are the characteristics of children in ECEC settings? Is the fragmentation of ECEC provision for children under age 3 likely to lead to inequalities in opportunities for vulnerable children?

Trends in enrolment, participation gaps and expenditure

Countries aim to expand the provision of ECEC services for the youngest children to support female (or parental) labour market participation and counter the declining trend in the working age population due to the ageing of the population. Increasing recognition of the role of ECEC to provide children with more equal opportunities from the first years of life combined with increasing cultural diversity among the population and children more particularly have also led governments to expand ECEC provision for children under age 3. Scaling up provision must go hand in hand with maintaining and improving quality if ECEC is to deliver its intended benefits for children. Higher quality ECEC can also strengthen families' trust in ECEC, thereby encouraging more widespread participation.

Raising participation in ECEC while maintaining or increasing its quality requires sufficient public investment combined with mechanisms to steer the system towards equity and quality. The strong role of private expenditure in many ECEC systems reflects the need for families to contribute to the cost of provision, which creates inequalities in participation in ECEC: children from disadvantaged socio-economic backgrounds who would benefit the most from ECEC are less likely to be enrolled (OECD, 2025^[1]).

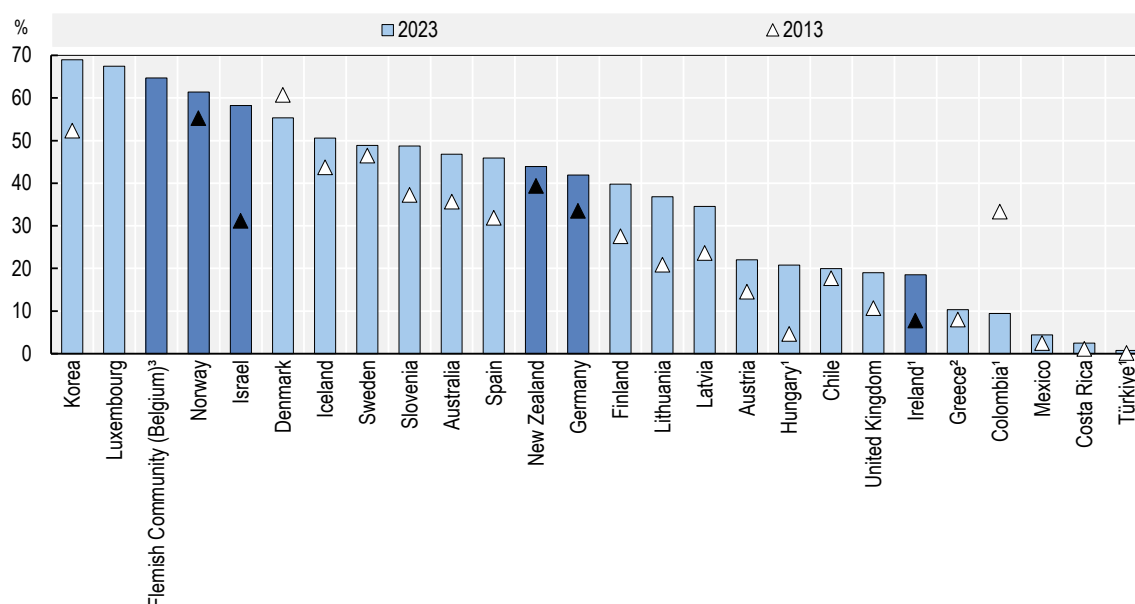
This section builds on system-level data to discuss trends in ECEC enrolment rates for children under age 3, differences in enrolment according to children's socio-economic background, and patterns of total and public versus private investment in ECEC.

Enrolment in ECEC for children under age 3 has increased

Participation rates for children under age 3 in ECEC have expanded over the last decade in most OECD countries and subnational entities (Figure 2.1). In countries and subnational entities participating in TALIS Starting Strong 2024 for settings for children under age 3, overall enrolment rose between 2013 and 2023, despite substantial variation in participation rates across systems. Enrolment rates in Norway were already high in 2013, exceeding 50%, while Israel has experienced a pronounced rise in participation over the past decade to almost 60% in 2023. By contrast, although enrolment has also expanded in Ireland, participation levels remain below the OECD average.

Figure 2.1. Trends in enrolment rates of children under age 3 in ECEC

Percentage of children under age 3 enrolled in ECEC programmes classified as ISCED 0, 2013 and 2023, across OECD countries and subnational entities



1. Year of reference differs from 2013: 2014 for Türkiye; 2015 for Colombia and Hungary; 2017 for Ireland.

2. Year of reference differs from 2023: 2019 for Greece.

3. Data are estimates combining subnational sources on enrolment rates in ISCED 01 and ISCED 02 and might not be fully comparable with data for other countries.

Notes: This figure only covers programmes that are classified as ISCED 0 (it does not include other ECEC services that are not classified as ISCED).

Countries and subnational entities which include bars and markers in darker shading participated in TALIS Starting Strong 2024 for settings for children under age 3.

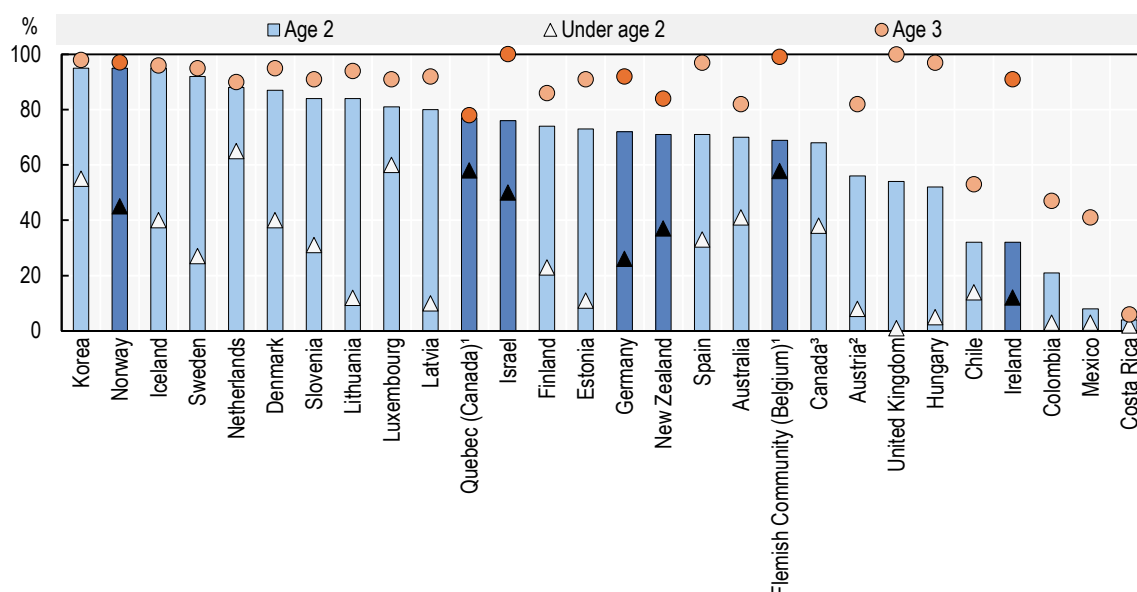
Countries and subnational entities are ranked in descending order of enrolment rates of children under age 3 in ECEC in 2023.

Source: OECD (2025^[2]), *Education at a Glance 2025: OECD Indicators*, Table B1.2; <https://data-explorer.oecd.org/s/3og>. Data for the Flemish Community of Belgium sourced from Flemish Government (n.d.^[3]) Growing Up, <https://www.opgroeien.be>.

Average participation rates for children under age 3 mask large differences by age. In all OECD countries, among children under age 3, younger children participate less in ECEC (Figure 2.2). This is observed when services that qualify as educational programmes according to ISCED (ISCED 0) and those that do not are taken into account in countries where this information exists. Many countries have reached almost universal coverage of ECEC at age 3, and in some countries and subnational entities, including Germany, Israel, Norway, New Zealand and Quebec (Canada), participation rates for children at age 2 exceed 70%. Participation for children under age 2 can also hide gaps in participation by age, as enrolment rates for children under age 1 tend to be particularly low in most countries and subnational entities and vary depending on the duration of parental leave (OECD, 2020^[4]). However, despite improvements in the measure of enrolment rates for children under age 3 in the last decade, data still focus on ISCED programmes only in some countries, which underestimates the full ECEC enrolment rate across OECD countries.

Figure 2.2. Enrolment rates of children in ECEC by age

Enrolment rates of children in ECEC ISCED programmes and other ECEC services, 2023, across OECD countries and subnational entities



1. Year of reference differs from 2023: 2024 for the Flemish Community of Belgium and Quebec (Canada). Data for the Flemish Community of Belgium are estimates combining subnational sources on enrolment rates in ISCED 01 and ISCED 02 programmes. Data for Quebec come from the province. These data might not be fully comparable with data for other countries.

2. In other registered ECEC services, 2-year-olds includes children under the age of 2; 3-year-olds includes children aged 3-5.

3. Early childhood education includes only early childhood educational development programmes (ISCED 01) for ages 2 and below.

Notes: Some countries have other registered ECEC services that are considered to be an integral part of their ECEC provision but do not comply with all the ISCED 2011 level 0 criteria to qualify as educational programmes. Countries where such programmes do not exist are: Germany, Hungary, Israel, Korea, Lithuania and Mexico. Countries where such programmes exist but for which data are missing are: Colombia, Costa Rica, Denmark, Finland, Ireland, Latvia, Norway, Slovenia, Spain and the United Kingdom. Data are missing for children age 3 only registered in other registered ECEC services in Luxembourg.

Countries and subnational entities which include bars and markers in darker shading participated in TALIS Starting Strong 2024 for settings for children under age 3.

Countries and subnational entities are ranked in descending order of enrolment rates of children aged 2 in ECEC.

Source: OECD (2025^[2]), *Education at a Glance 2025: OECD Indicators*, Table B1.1; Data for the Flemish Community of Belgium and Quebec (Canada) sourced from OECD (2025^[5]), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, Annex A; Flemish Government (n.d.^[3]) *Growing Up*, <https://www.opgroeien.be>.

StatLink  <https://stat.link/97i4kn>

A wide range of factors contribute to the low ECEC enrolment rates of the youngest children. While some barriers are direct, relating to the availability, accessibility and affordability of ECEC services, others are indirect and hinder access to otherwise available services, making them less appealing or harder to navigate for families (OECD, 2025^[1]). These stem from challenges such as limited access to information about available services and provisions, the complexity of administrative requirements, lack of awareness of ECEC benefits, or a low level of trust in the quality of services offered. Differences in participation rates for children under age 2 between countries partly reflect differences in parental leave systems and societal views regarding child rearing in the early years, which are both interlinked.

Legal entitlements underscore the importance placed on child development in the early years and can help address some of these barriers. Countries and subnational entities participating in TALIS Starting Strong 2024 vary in their approaches to legal entitlements (Table 2.1). In Germany and Norway, municipalities are responsible for guaranteeing access for eligible children; in Quebec (Canada), access to ECEC depends on availability (Eurydice, 2024^[6]). The Flemish Community of Belgium offers legal entitlement from 2.5 years. In Ireland, access to the free and universal ECEC programmes starts at the age of 2 years 8 months (with no legal entitlement), which roughly corresponds to the beginning of pre-primary. For children under this age, there are no legal entitlements to a place in ECEC in these two systems. The Flemish government funds places in ECEC settings but access depends on availability and priority rules. Israel also lacks an entitlement for children under age 3 but subsidises access to ECEC and bases admission on priority criteria. There is no legal entitlement for children under age 3 in New Brunswick (Canada) or New Zealand.

Table 2.1. Legal entitlement to ECEC for children under age 3

In systems participating in TALIS Starting Strong 2024 for settings for children under age 3

Country/subnational entity	Legal entitlement under age 3
Flemish Community (Belgium)	Legal entitlement starts at age 2.5 upon entering pre-primary early childhood education and care (ECEC). The government allocates funding to create places in childcare settings for children under age 3 (<i>Kinderopvang</i>). Families are offered access based on available capacity and priority rules.
Germany	Universal entitlement to ECEC starts at age 1.
Ireland	Access to the free and universal ECEC programmes starts at the age of 2 years 8 months. There is no legal entitlement.
Israel	No legal entitlement. For children under age 3, access to subsidised ECEC is available for up to 50 hours per week. Families are offered access based on available capacity and priority rules.
New Brunswick (Canada)	No legal entitlement.
New Zealand	No legal entitlement.
Norway	All children are legally entitled to a place in a publicly subsidised kindergarten (centre-based or home-based) from an early age (12-18 months) and municipalities are responsible for guaranteeing access to ECEC for all eligible children.
Quebec (Canada)	The Educational Childcare Act establishes a right for all children from birth until school entry to access educational childcare subject to availability, organisation and resources of providers; attendance is not compulsory.

Source: OECD (2025^[5]), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, Annex A.

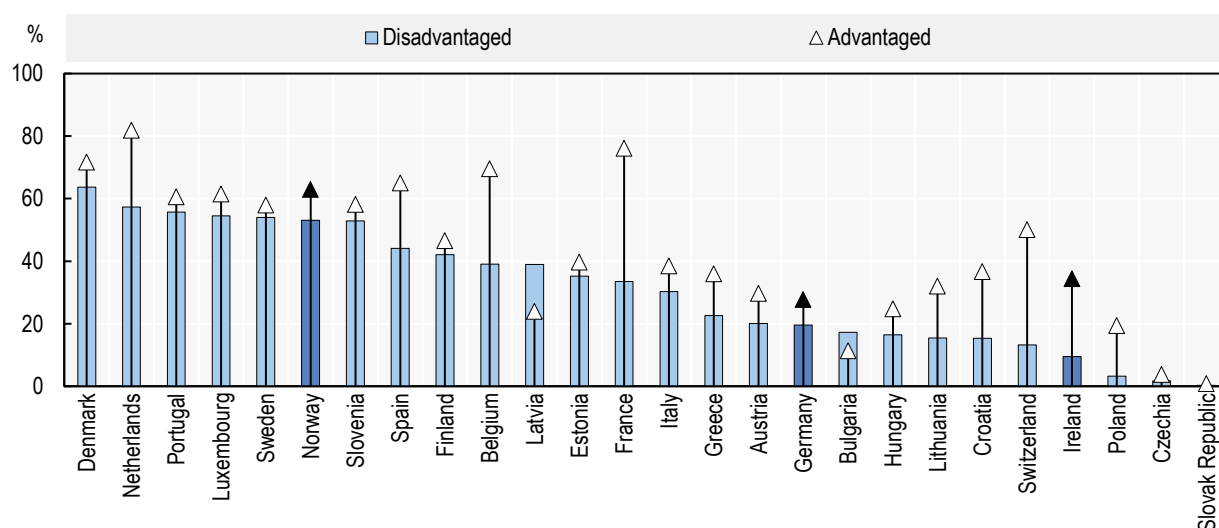
Inequalities in ECEC participation for children under age 3 persist

While participation in ECEC has increased in the past decade, inequalities in participation remain. Children under age 3 from disadvantaged socio-economic backgrounds participate less in regulated centre-based and home-based ECEC in European OECD countries for which there are available data in the European Union Statistics on Income and Living Conditions (EU-SILC) (Figure 2.3). This is the case in Belgium

(whole country), Germany and Ireland. The gap is not statistically significant in Norway. Inequalities in participation in ECEC services by children's socio-economic background have also been noted in Canada, Israel and New Zealand (Bird et al., 2016^[7]; Findlay, Wei and Arim, 2021^[8]; Zontag et al., 2020^[9]).

Figure 2.3. Socio-economic inequalities in ECEC participation among children under age 3

Share of disadvantaged (lowest income tertile) and advantaged (top income tertile) children aged 0-2 participating in ECEC in 2023, across European countries



Notes: Data for Germany are for 2022; data for Switzerland are for 2021. Socio-economic background is measured based on the equivalised disposable household income (see Annex B). Differences between advantaged and disadvantaged children are not significant in Bulgaria, Czechia, Denmark, Estonia, Finland, Italy, Luxembourg, Norway, Portugal, the Slovak Republic, Slovenia and Sweden.

Countries and subnational entities which include bars and markers in darker shading participated in TALIS Starting Strong 2024 for settings for children under age 3.

Countries are ranked in descending order of participation in regulated centre-based and home-based ECEC for disadvantaged children.

Source: Eurostat (2024^[10]), European Union Statistics on Income and Living Conditions, <https://doi.org/10.2907/EUSILC2004-2023>.

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Inequalities in ECEC participation are due to the fact that barriers to ECEC participation disproportionately affect vulnerable families and children. Lack of affordability prevents low-income families from enrolling their children, but these families are also more likely to live in areas without enough ECEC places to meet demand. Complex administrative requirements, lack of awareness of ECEC benefits, social norms and a low level of trust in ECEC services also discourage families, particularly those with low socio-economic status, to enrol their children in ECEC.

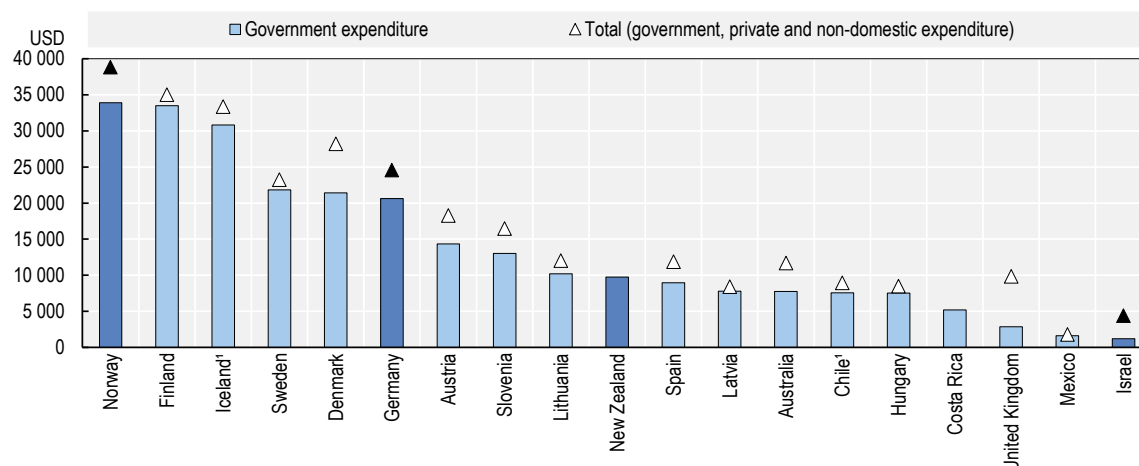
Expenditure per child has increased but varies widely across OECD countries

Increasing participation while maintaining or raising quality requires adequate funding. Data on ECEC expenditure are scarce, especially for children under age 3. OECD data only cover the part of ECEC for children under age 3 classified as ISCED 0. As participation in ECEC for children under age 3 is lower than that for children age 3-5, total expenditure as a share of gross domestic product (GDP) is also lower in almost all OECD countries with available data for this age group. Total ECEC spending (public and private) per child varies widely across OECD countries and those participating in TALIS Starting 2024 for settings

for children under age 3, with available data ranging from USD 39 000 in Norway to USD 4 400 in Israel (adjusted for cost of living) (Figure 2.4), reflecting policy choices related to staff salaries, child-to-staff ratios, number of hours per child, etc. These features are closely related to the capacity to provide quality and inclusive ECEC.

Figure 2.4. Total expenditure and government expenditure per child on ECEC for children under age 3

For ISCED 01 programmes, in equivalent USD converted using purchasing power parities for GDP, 2022, across OECD countries



1. Total expenditure on educational institutions includes payments by households outside educational institutions.

Notes: Countries and subnational entities which include bars and markers in darker shading participated in TALIS Starting Strong 2024 for settings for children under age 3. Data are missing for the Flemish Community of Belgium, Ireland, New Brunswick and Quebec (Canada), and New Zealand.

Countries are ranked in descending order of government expenditure per child.

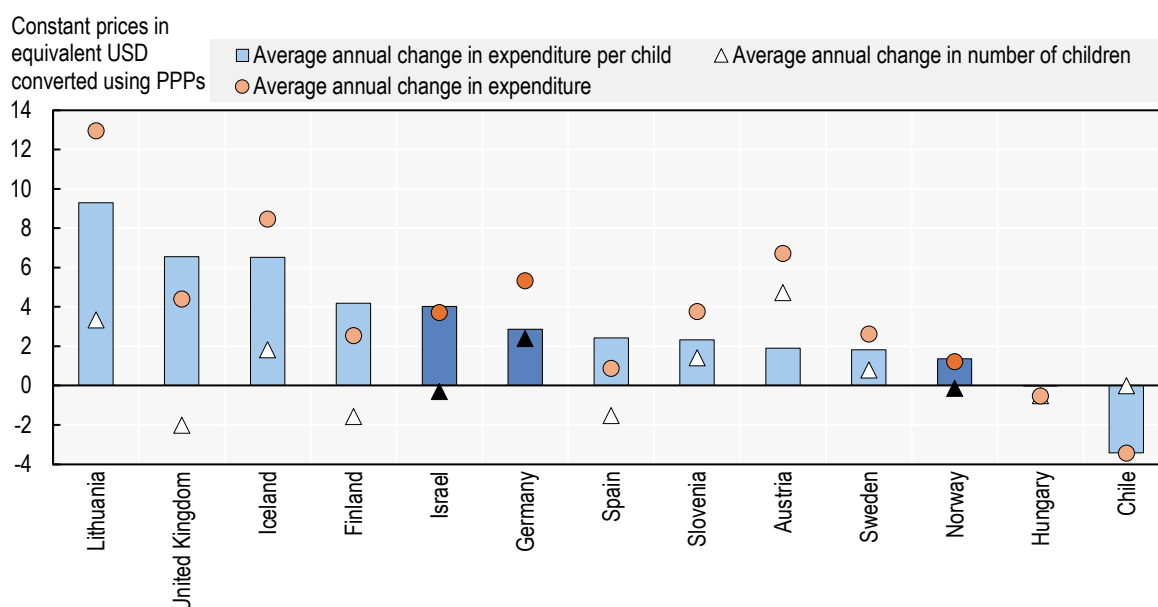
Source: OECD (2025^[2]), *Education at a Glance 2025: OECD Indicators*, Table C2.1.

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Between 2015 and 2021, expenditure per child increased in all countries with available data except Chile and Hungary (Figure 2.5). The increase in expenditure per child was driven by an increase in total expenditure that has more than compensated for the change in expenditure due to the change in the number of children enrolled. In Israel and Norway, the number of children enrolled stagnated, but total expenditure increased, leading to an increase in expenditure per child. In Germany, the number of enrolled children increased as did expenditure per child.

Figure 2.5. Average annual change in total expenditure per child on ECEC for children under age 3

For ISCED 01 programmes, constant prices in equivalent USD converted using PPPs, 2015 and 2021, across OECD countries



Notes: Countries and subnational entities which include bars and markers in darker shading participated in TALIS Starting Strong 2024 for settings for children under age 3.

PPP: purchasing power parity.

ECEC: early childhood education and care.

Countries are ranked in descending order of the average annual change in expenditure per child.

Source: OECD/UIS/Eurostat (2024^[11]), *Education at a Glance 2024 Sources, Methodologies and Technical Notes*.

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Private expenditure plays a bigger role in funding ECEC for children under age 3 than in pre-primary and primary education

Private expenditure plays a stronger role in funding ECEC provision for children under age 3 relative to pre-primary and higher education levels in most OECD countries with available data. In Israel, private expenditure accounts for more than 70% of total funding on educational institutions at ISCED 01 level, whereas in Germany and Norway it plays a more limited role (less than 20% of total funding) (OECD, 2025^[2]). This is also reflected in expenditure per child, with private expenditure accounting for a substantive share in some countries (see Figure 2.4). These data may, however, underestimate the contribution of private expenditure, as they do not include programmes outside the ISCED classification that can be less regulated and receive less funding from the government. Limited public investments in ECEC provision or insufficient support for parents to reduce ECEC costs enhance reliance on family contributions, which contributes to lower participation among more disadvantaged families. In Ireland, Israel and New Zealand, out-of-pocket costs for centre-based ECEC for young children were above the OECD average in 2023 (OECD, n.d.^[12]).

Most OECD countries target public spending on family benefits and education towards middle and late childhood, with only a few, including Norway, maintaining balanced spending between the different stages of childhood (OECD, 2022^[13]; 2025^[1]). Cash benefits and tax breaks (including maternity and parental leave benefits) during the first years of a child's life tend to constitute the largest amount of public spending on children under age 2 (OECD, 2022^[13]). For countries participating in TALIS Starting Strong 2024 for

children under age 3 (data are not available at the subnational level), the level of expenditure per child (ISCED 01) is higher than for other levels of education in Germany and Norway. Conversely, in Israel, spending per child (ISCED 01) falls below that for other levels of education (OECD, 2025^[2]).

Governance, organisation and management: A fragmented sector

How ECEC provision is organised and governed shapes children's and parents' experience with these services as well as their quality. Findings from research have put forward the importance of the degree of integration of the ECEC system and its connection with other social services or with schools for providing a continuum of services to children and families and best serving their needs. ECEC governance is split in some countries, with ECEC for children under age 3 generally under the Ministry of Families or Social Affairs and the Ministry of Education in charge of pre-primary education. While split governance can enable better support for the youngest children, it creates a transition for children and families within the ECEC sector and requires particular attention to co-ordination through curriculum frameworks and staff practices with children. Another important feature of ECEC, particularly for children under age 3, is that it can be provided in different types of settings, either centre- or home-based. This can have implications for the profiles of staff in the sector and the type of ECEC experiences for children and families.

In many countries, part of ECEC provision is privately managed, more than in other sectors. Competition in provision could foster quality and enable faster adaptation to demand. At the same time, private for-profit centres may prioritise profits over improving services and providing quality ECEC and may be less likely to enrol vulnerable children (OECD, 2025^[1]). Evidence from several market-based ECEC systems (e.g. Ireland, the Netherlands and the United Kingdom) suggests that private provision with private funding has led to high costs for parents and possibly low quality, as funding has partly gone into excessive profits (Brogaard and Helby Petersen, 2022^[14]).

These aspects of governance, funding and organisation mean that the ECEC sector can be fragmented along several dimensions. While different ECEC options can provide families with flexibility and opportunities to find a solution adapted to their needs, the fragmentation of the sector can lead to differences in quality and difficulties for authorities to steer the overall sector towards quality and equity. The allocation of responsibilities within the sector is a key driver of quality. Research increasingly highlights the importance of leadership in ECEC, particularly in a context of fragmented governance and organisation (Douglass, 2019^[15]). Leaders' level and scope of autonomy over the key dimensions of management shape the organisation and operation of settings. At the same time, the range of tasks leaders are expected to fulfil influences the kind of competencies and working conditions required.

This section discusses how ECEC systems are governed and organised in countries and subnational entities participating in TALIS Starting Strong 2024, highlighting the various types of fragmentation of the sector and how they vary across countries. The section mainly builds on data from TALIS Starting Strong 2024 that gathers information about how ECEC settings are funded and managed, and how ECEC leadership responsibilities are distributed across governance domains within ECEC settings. These data come from leaders' reports about setting characteristics and may differ from descriptions provided by administrative data at a national, regional or local level of government.

Participating countries and subnational entities differ in the degree of integration of their ECEC systems

Several countries and subnational entities participating in TALIS Starting Strong 2024 for settings for children under age 3 have an integrated governance, in the sense that the whole ECEC sector is under the responsibility of the same ministry (Table 2.2). In such systems, there are generally settings called "integrated", that serve children of all ages before the age of entry into primary education, and therefore

children under and over the age of 3. This is the case for all settings in Norway and most in Germany, Ireland and New Zealand. In the two Canadian provinces, settings are integrated, as they can serve children of all ages before entry in primary education, but there are also pre-primary settings exclusively for older children (not covered in TALIS Starting Strong 2024). Governance is integrated in New Brunswick (Canada), with the whole ECEC sector under the Department of Education and Early Childhood Development, but split in Quebec (Canada), as pre-primary settings exclusively for older children are under a different ministry than the rest of the ECEC sector.

In contrast, the governance of ECEC in the Flemish Community of Belgium is split between the Flemish Ministry of Welfare and Poverty Reduction, Culture and Equal Opportunities overseeing ECEC for children under age 3 and pre-primary settings that fall under the authority of the Ministry of Education and generally starts at age 2.5. Israel has been transitioning from split to integrated governance: previously, the Ministry of Labour, Welfare and Social Affairs oversaw ECEC for children under age 3, whereas currently the Ministry of Education is responsible for ECEC for children age 0-6 (OECD, 2020^[4]; 2025^[5]). However, there are no integrated settings in Israel: childcare centres and home-based family childcare continue to target children under age 3.

Table 2.2. Governance and organisation of ECEC systems serving children under age 3

In ECEC systems participating in TALIS Starting Strong 2024 for settings for children under age 3

Country/ subnational entity	Split/ integrated governance	Name of ECEC setting in English (and in local language)	Age range covered	Centre-based or home-based
Flemish Community (Belgium)	Split	Childcare settings (<i>Kinderopvang</i>)	0-2.5/3	Home-based or centre-based
Germany	Integrated	Family childcare (<i>Kindertagespflege</i>)	0-6	Home-based
		ECEC settings for mixed age groups (<i>Kindertageseinrichtungen mit Kindern aller Altersgruppen</i>)	0-6/2-6	Centre-based
		ECEC settings for children under age 3 (<i>Kinderkrippe</i>)	Under age 3	Centre-based
Ireland	Integrated	Part-time and full-time childcare services	Under age 6	Centre-based
		Childminding services	Under age 6	Home-based
Israel	Split, in process of integrating	Childcare centres (<i>Meonot</i>)	Under age 3	Centre-based
		Family childcare (<i>Mishpachtonim</i>)	Under age 3	Home-based
New Brunswick (Canada)	Integrated	Early learning and childcare facilities (<i>garderie educative</i>)	Under age 6	Home-based or centre-based
Norway	Integrated	Kindergarten (<i>Barnehage</i>)	Under age 6	Centre-based
		Family kindergarten (<i>Familiebarnehage</i>)	Under age 6	Home-based
Quebec (Canada)	Split	Childcare centre (<i>centre de la petite enfance</i>)	Under age 6	Centre-based
		Daycare centre (<i>garderie privée (subventionnée ou non)</i>)	Under age 6	Centre-based
		Home-based childcare service (<i>garde éducative en milieu familial</i>)	Under age 6	Home-based
New Zealand**	Integrated	Home-based education and care services	Under age 6	Home-based
		Centre-based education and care services	Under age 6	Centre-based
		Play centres	Under age 6	Centre-based
		Māori Language Nest (<i>Te Kōhanga Reo</i>) ¹	Under age 6	Centre-based
		Correspondence school (<i>Te Aho o Te Kura Pounamu (Te Kura)</i>)	From age 2 and under age 6	Centre-based
		Kindergartens	From age 2 and under age 6	Centre-based

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: Settings not included: pre-primary education settings (*Kleuteronderwijs*) in the Flemish Community of Belgium and sessional preschool services in Ireland since they are more related to “preschool” services.

1. *Kōhanga Reo* (language nests) are licensed providers of Māori language immersion early learning services with a wider focus on *whānau* (family) development.

Source: OECD (2025^[5]), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, Annex A.

In this report, settings are classified as integrated or non-integrated depending on the age mix of the children enrolled

As most participating systems have integrated governance and include integrated settings that formally serve children from a broad age range (see Table 2.2), most settings in TALIS Starting Strong 2024 for

children under age 3 serve children of different ages (Figure 2.6). This is, however, not the case in the Flemish Community of Belgium and Israel, where settings target children under age 3, reflecting the split nature of the system or the lack of integrated settings.

In systems with integrated settings (all systems except Israel and the Flemish Community of Belgium), the age mix of children in settings differs between systems due to differences in the prevalence of integrated settings and in enrolment rates by age. Relatively few ECEC settings enrol more than 60% of children under age 3. The low shares of settings enrolling a majority of children under age 3 partly reflect the lower participation levels in ECEC of children under age 3 relative to those of pre-primary age who are, therefore, more naturally over-represented in ECEC settings. Settings in Norway and Quebec (Canada) have a higher proportion of children under age 3 than those in other systems with integrated settings, including Germany and New Zealand**, where a more sizeable share of settings for children under age 3 include a mix of children of different ages. In Norway and Quebec (Canada), this is linked to the high enrolment rates at age 2.

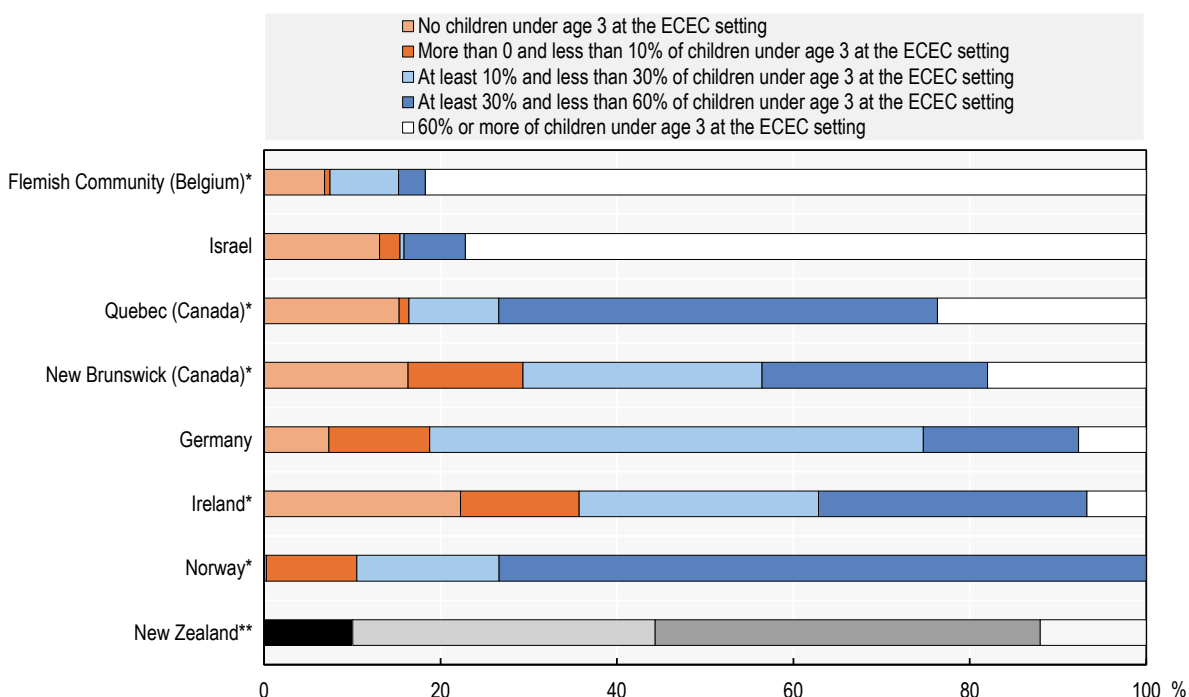
Some leaders in TALIS Starting Strong 2024 for settings for children under age 3 report that their settings do not receive any children under age 3. This is the case for more than 15% of leaders in Ireland and both Canadian provinces. In countries and subnational entities with integrated settings serving all ages, the TALIS Starting Strong 2024 sampling strategy randomly split these settings into the pre-primary or under age 3 parts of the ECEC sector. Some of these settings may have had no children under age 3 at the time of the survey. In the Flemish Community of Belgium and Israel, where settings specifically target children under age 3, settings for which leaders report no children under age 3 are rare but do exist. These can be very small settings (e.g. home-based ones) with children at age 3 at the time of the response to the survey or can reflect inaccuracy in the reported age. Likewise, some older children may stay in under age 3 settings before they can be enrolled in pre-primary settings. Together with possible inaccuracies in the reported age, this explains why some leaders report having children age 3 and above in the Flemish Community of Belgium and Israel.

TALIS Starting Strong 2024 data on children's age mix in settings highlight the complexity of the organisation of the sector. In addition, the survey does not collect data on whether the setting is formally integrated (defined as receiving children both under age 3 and older). In analyses presented in this report, in systems with integrated settings (all systems except the Flemish Community of Belgium and Israel), settings enrolling more than 60% of children under age 3 are considered as non-integrated and targeting children under age 3. Settings with less than 60% of children under age 3 are considered as integrated. While this classification does not fully align with the types of settings that formally exist in countries and subnational entities, it captures the reality of children's age mix in settings. According to this definition, all settings are integrated in Norway, while this is the case for around 90% of settings in Germany, Ireland and New Zealand**, and around 80% of settings in the two Canadian provinces.

Overall, when both the governance and the age coverage of ECEC settings are taken into account, systems participating in TALIS Starting Strong 2024 for children under age 3 vary in their degrees of integration. At the two extremes, the Flemish Community of Belgium's ECEC system is split while the Norwegian one is integrated. Systems in Germany and Ireland are also highly integrated while those in the two Canadian provinces are in an intermediary position. Israel's system is moving towards integration but remains relatively split at this point.

Figure 2.6. Distribution of ECEC settings by children's age composition

Average percentage of ECEC settings for children under age 3 by percentage of children under age 3, based on leader reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in ascending order of the percentage of ECEC settings with 60% or more of children under age 3.

Source OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.2.1.

StatLink  <https://stat.link/jvfwrq>

ECEC is generally provided in a mix of home-based and centre-based settings

Centre-based settings refer to organised ECEC delivered in facilities designed for group-based care, including creches, kindergartens, preschools, etc. Home-based settings typically involve a single staff member providing care in their own home to a small group of children. Countries differ in their reliance on home- versus centre-based settings. In TALIS Starting Strong 2024, more than 50% of settings are home-based in the Flemish Community of Belgium, Israel and Quebec (Canada) (Figure 2.7). As home-based settings generally have smaller sizes than centre-based ones (see section below), a majority of children are however enrolled in centre-based settings in these three systems. In New Brunswick (Canada) and New Zealand**, home-based settings represent a minority of settings. There is substantial variation in the organisation, regulation and delivery of home-based provision of ECEC (Box 2.1). The home-based sector was excluded from TALIS Starting Strong 2024 in Germany, Ireland and Norway (OECD, forthcoming_[16]). Most settings are centre-based in Norway while Germany includes a higher share of home-based settings. In Ireland, most of the home-based settings are not yet regulated and, therefore, out of the scope of the survey.

Box 2.1. Home-based ECEC provision in participating countries and subnational entities

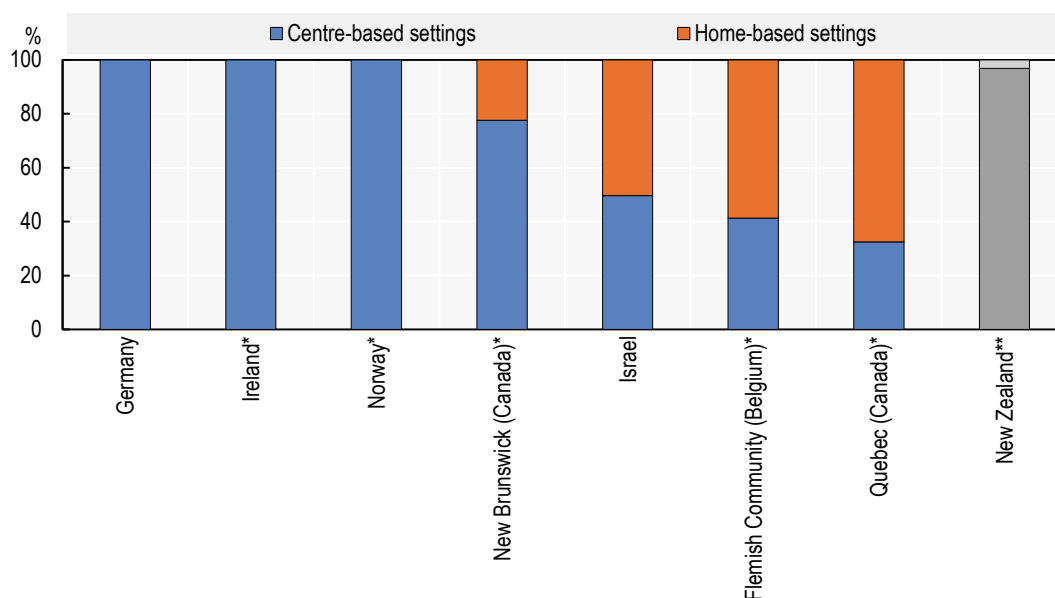
In the Flemish Community of Belgium, home-based early childhood education and care (ECEC) is usually provided by a single person and typically takes place in this person's own home, although it can also be offered in another location (e.g. school building). Home-based provision is generally intended for an average of four children, with a maximum of eight at the time of the data collection. In some cases, two staff may care for the children. When two staff care for more than eight children in a home-based setting, they are considered as "co-operating childcare professionals" and fall within the category of centre-based ECEC. If the staff in a home-based setting is not self-employed, the person is affiliated with a service or provider that manages multiple home-based settings. These services employ staff who act as leaders of several affiliated home-based settings. While these leaders are responsible for overseeing these settings, they typically do not work directly in the individual settings themselves.

In New Brunswick, home-based ECEC is provided through licensed "Early Learning and Child Care homes", which are operated by a single individual within their own residence. These programmes are designed to offer care to a smaller number of children in a home environment, without requiring a dedicated or separate facility space. Under the Early Childhood Services Act and associated regulations, home-based services may serve specific group sizes at any one time, including up to three infants, five preschool children, nine school-age children or a mixed age group of up to six children with defined limits on infants and school-age composition. While operators are not required to hold an Early Childhood Education Certificate or diploma, those without recognised training must complete a 90-hour Introduction to Early Childhood Education course following licensing. Licensed home-based services may also choose to become designated, a voluntary status that commits the operator to providing more accessible, inclusive and higher quality services for children age 5 and under, including adherence to a provincially set maximum daily parent fee. Non-designated homes remain licensed but are not eligible for government funding tied to reduced parent fees under the Canada-New Brunswick Canada-Wide Early Learning and Child Care Agreement.

In New Zealand, a licensed home-based service comprises a network of homes which provide education and care. Educators can care for up to four children at a time, including up to two children under age 2. Educators are supervised by a certificated teacher. This person (also known as a co-ordinator or visiting teacher) provides pedagogical support and has primary responsibility for overseeing children's education and care, comfort, and health and safety.

Figure 2.7. Distribution of home-based and centre-based ECEC settings

Percentage of centre-based and home-based settings for children under age 3 in TALIS Starting Strong 2024, based on leader reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: All settings were required to be officially registered ECEC settings to be included in the sample (see Annex A for more sampling information).

The type of ECEC setting was identified based on the sampling frame and weighted according to data collected from respondents. Home-based data were not included in the sampling frame for Germany, Ireland or Norway. For more information, see Annex A.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in ascending order of the percentage of home-based ECEC settings.

Source: OECD (2025^[5]), TALIS Starting Strong Database 2024, Table D.3.1.

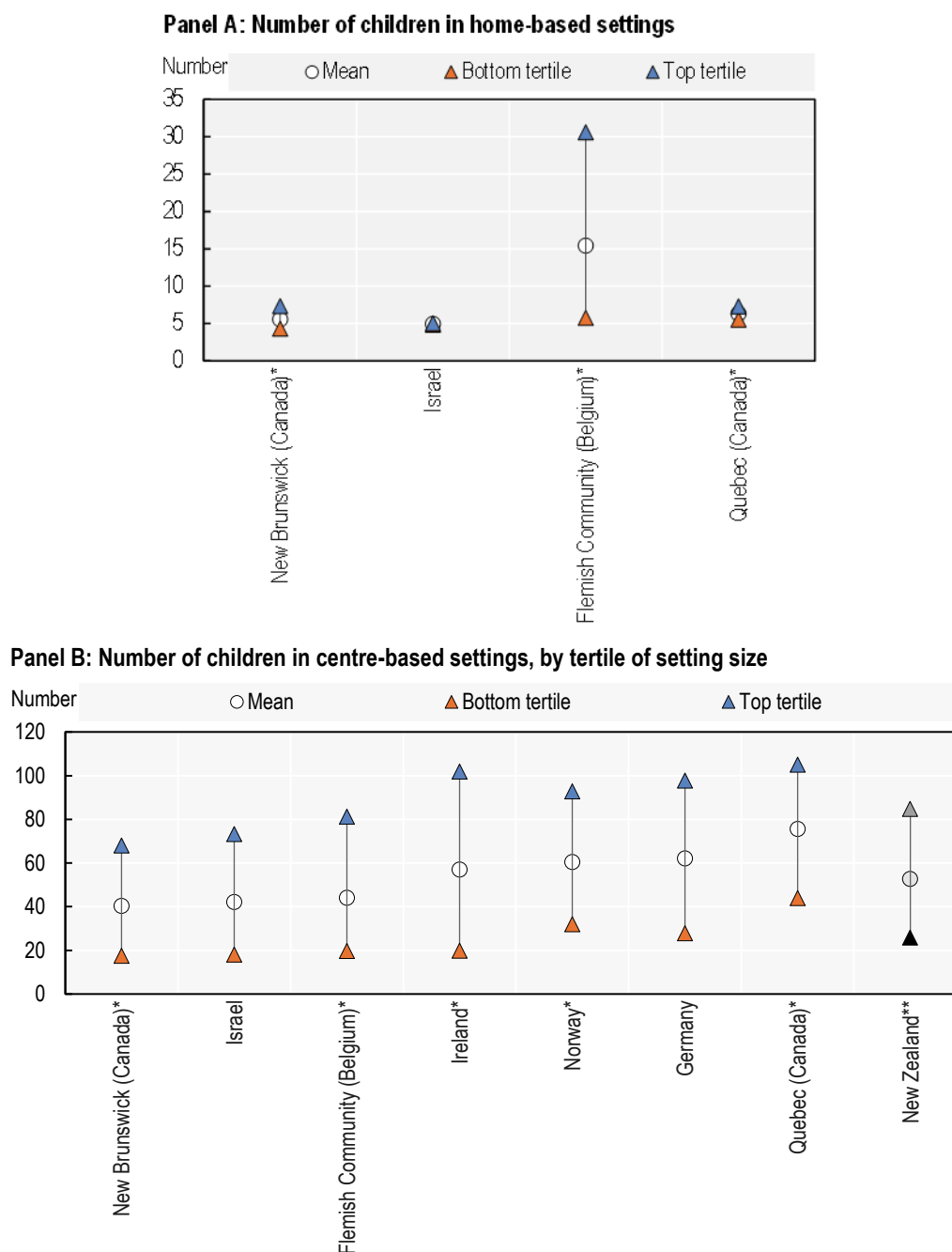
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The size of ECEC settings varies widely within systems

In the Flemish Community of Belgium, Israel and New Brunswick (Canada), the average size of centre-based settings is less than 50 children, with many small settings (Figure 2.8 and Table C.2.2). Settings are the largest in Quebec (Canada), while there is large variation in the size of centre-based settings in Ireland. Not surprisingly, home-based settings are smaller than centre-based ones (Table C.2.2). Home-based settings serve on average five children in Israel and six in the two Canadian provinces, with little variation within these systems. Home-based settings are of similar size in the Flemish Community of Belgium, but there are leaders who manage multiple home-based settings covering much larger numbers of children, as reflected in the top tertile value (see Box 2.1).

Figure 2.8. Size of home-based and centre-based ECEC settings for children under age 3

Number of children in settings for children under age 3, by tertile of setting size, based on leader reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in ascending order of the mean size of centre-based ECEC settings.

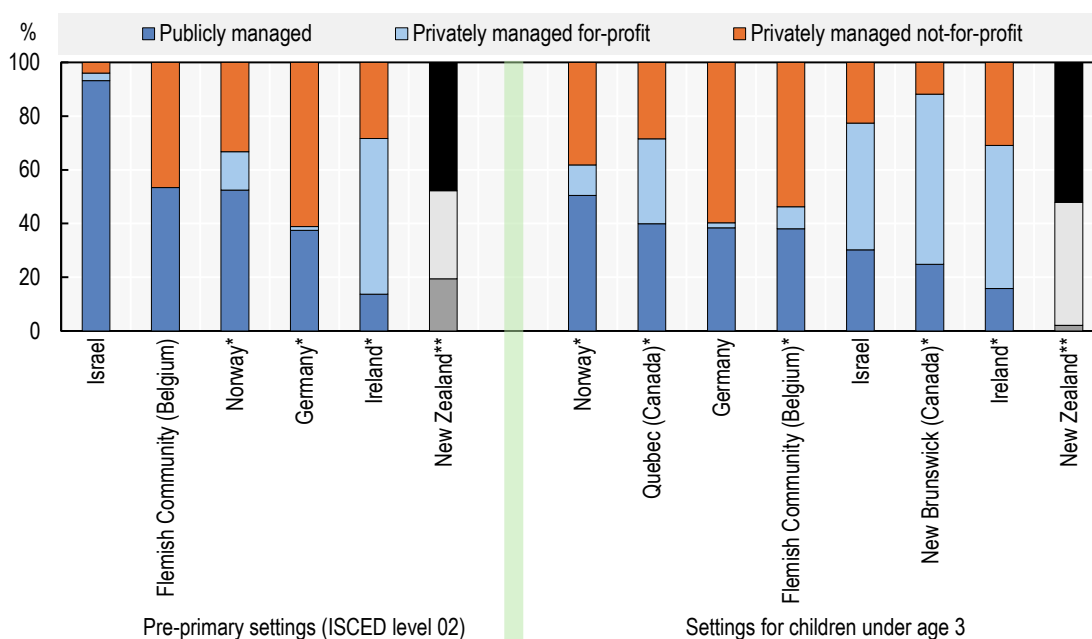
Source: OECD (2025), TALIS Starting Strong 2024 Database, Table C.2.2.

At least half of settings are privately managed

ECEC settings for children under age 3 in TALIS Starting Strong 2024 combine public and private provision. While Norway has a balanced share of publicly managed and privately managed settings, private provision is prevalent in all other countries and subnational entities (Figure 2.9). Privately managed for-profit settings play a leading role in ensuring provision in Ireland, Israel, New Brunswick (Canada) and New Zealand**. Germany and Norway show similar public-private distributions in provision for children under age 3 and at the pre-primary level, reflecting their integrated systems. In contrast, in the Flemish Community of Belgium and particularly Israel, the public-private mix differs across ECEC levels, with private settings being more prevalent in ECEC for children under age 3.

Figure 2.9. ECEC setting provision, management and profit status

Percentage of publicly and privately managed, for-profit and not-for-profit ECEC settings, based on leader reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: In Ireland, Quebec (Canada) and New Zealand**, according to official sources, all ECEC settings are privately managed; the results should, therefore, be interpreted with caution.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the percentage of publicly managed ECEC settings.

Source: OECD (2025^[5]), TALIS Starting Strong Database 2024, Tables D.3.2 and D.3.3.

StatLink  <https://stat.link/z71n8e>

Among systems with home-based settings, the type of management and profit status differ. In the Flemish Community of Belgium, home-based settings can be publicly managed or privately managed not-for-profit and less frequently privately managed for-profit (Table C.2.3). In Israel, all home-based settings are privately managed for-profit while all publicly and privately managed not-for-profit settings are centre-based. Likewise, in the two Canadian provinces, all home-based settings are privately managed for-profit.

Whether publicly or privately managed, ECEC settings for children under age 3 receive funding from public and private sources, through a combination of direct payments from the government, fees or charges paid by parents, and payments by employers of parents (Table D.3.4 in OECD (2025^[5])). In line with system-level data, a majority of settings in most participating countries and subnational entities receive both government funding and funding from fees or charges paid by parents (or private funding), except in Israel, where government funding is less prevalent. Almost all privately managed for-profit settings in Ireland and New Brunswick (Canada) and around half of those in Israel receive direct funding from the government.

Home-based and centre-based settings rely on a similar mix of funding sources in most participating countries and subnational entities, although TALIS Starting Strong 2024 data do not capture the size of the contribution of each type of funding (Table C.2.4). In Israel, only a minority of centre-based settings (19%) receive direct payments from the government, unlike home-based settings (62%). Centre-based settings tend to rely more on other non-governmental funding (e.g. funding from donations, fundraising), although this only concerns 6% of centre-based settings.

Leaders are responsible for a broad range of tasks in the under age 3 sector

TALIS Starting Strong 2024 asks leaders who has “significant responsibility” for a range of tasks among leaders themselves, other members of staff and other institutions (e.g. governing boards; local, regional or national/federal authorities). Responsibilities are often shared between stakeholders. However, these data can be combined into the most typical response or a combination of responses to indicate whether a variety of tasks are generally the responsibility of mostly leaders only; mostly leaders with other stakeholders, including staff; or mostly ECEC staff or other institutions (Table 2.3). In all participating countries and subnational entities, leaders have responsibility for a broad range of tasks. They are responsible for deciding on budget allocation within the setting and human resources tasks, generally alone and sometimes with other stakeholders, except in New Zealand**, where budget responsibilities lie with other entities. They have great responsibilities in interacting with families, either alone or with ECEC staff. They also have pedagogical responsibilities, generally together with ECEC staff, except in the Flemish Community of Belgium, where decisions on materials/toys to use and activities for children are mostly the responsibility of staff only (and in Quebec [Canada] as well for the choice of activities).

Systems differ in the allocation of responsibilities for setting ECEC staff salaries. This is generally the responsibility of leaders in Ireland, Israel and New Brunswick (Canada), as well as in New Zealand**, but shared with other entities (e.g. ECEC setting governing board or local/regional/national authority). In other systems, leaders generally do not have responsibility for setting staff salaries. These are countries and subnational entities where public provision is the most prevalent.

Overall, the combination of the fragmentation of the ECEC sector between types of provision and the leading responsibilities of leaders mean that there can potentially be great variation in the quality of the ECEC provided within systems. Mechanisms that can steer systems towards high-quality standards, as discussed in Chapter 4, are, therefore, important. This report systematically investigates variations in drivers of quality and equity in ECEC for children under age 3 linked to the fragmentation of the system by using the key contextual and demographic characteristics defined in Box 2.2

Table 2.3. Responsibilities of ECEC leaders, setting staff, governing boards and administrative authorities in ECEC settings for children under age 3

Leader reports of stakeholders that most commonly have “significant responsibility” for the following tasks

	Financial responsibilities		HR responsibilities				Interaction with families			Pedagogical responsibilities			
	Deciding on budget allocations within the ECEC setting	Establishing ECEC staff salaries	Appointing or hiring ECEC staff	Dismissing or suspending ECEC staff from employment	Establishing ECEC staff schedules	Planning for professional development activities for the ECEC staff	Approving children for admission to the ECEC setting	Deciding what information is given to parents on the ECEC setting	Deciding what information is given to parents on their child's D, WB & L	Establishing plans for assessment and monitoring of children's D, WB & L	Establishing the curriculum framework for supporting children's D, WB & L	Choosing which materials/toys are used	Deciding which activities for children are offered
Flemish Community (Belgium)*													
Germany													
Ireland*													
Israel													
New Brunswick (Canada)*													
Norway*													
Quebec (Canada)*													
New Zealand**													

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: Leader reports of the stakeholders with “significant authority” (the one who plays an active role in decision making) are not mutually exclusive. Information summarised in the table reflects the most typical response or combination of responses within system from among four response options: leaders; other members of staff; ECEC setting governing board; local/regional/national authority. People or groups are labelled as “mostly responsible” when they are identified by the highest percentage of leaders as responsible for a given task among the four possible response options. In addition, where another person or group is reported as responsible by the second-highest percentage of leaders, and this percentage is within 90% of the percentage given for the most frequently reported response option, they are also included in the table. Darker colours indicate where leaders have responsibilities and lighter ones where responsibilities are mainly with ECEC staff or other entities.

D, WB & L: Development, well-being and learning. ECEC: early childhood education and care.

Source: OECD (2025^[5]), *TALIS Starting Strong 2024 Database*, Table D.7.5.

Box 2.2. Definitions of the key contextual and demographic characteristics used in this report

This report analyses the **fragmentation** of early childhood education and care (ECEC) for children under age 3 along three dimensions:

1) Type of management and profit status of the ECEC setting

TALIS Starting Strong 2024 defines the type of management and profit status as follows:

- **Publicly managed:** ECEC settings that are managed by a public education authority, government agency or municipality.
- **Privately managed:** ECEC settings that are managed by a non-governmental organisation, e.g. a church/synagogue/mosque, trade union, business, other private institution or person.
- **Not-for-profit:** ECEC setting does not aim to make a profit, or all profits are reinvested into the ECEC setting.
- **For-profit:** ECEC setting aims to make more money than its costs (a profit).

The report considers two types of fragmentation: 1) publicly managed versus privately managed; and 2) privately managed not-for-profit versus privately managed for-profit.

In Ireland, Quebec (Canada) and New Zealand**, according to official sources, all ECEC settings are privately managed. In these systems, the first type of fragmentation is, therefore, not considered.

2) Age covered by ECEC settings

In systems where settings covering both children under age 3 and age 3 and above exist according to responsible authorities (all systems except the Flemish Community of Belgium and Israel), the following definition is adopted:

- **Non-integrated settings:** ECEC settings where more than 60% of children enrolled are under age 3.
- **Integrated settings:** ECEC settings where 60% or fewer of children enrolled are under age 3.

For these systems, the report compares non-integrated settings with integrated ones.

3) Type of ECEC setting

ECEC settings included in TALIS Starting Strong 2024 comprise all officially registered programmes under the jurisdiction of a relevant authority. Two main types are distinguished:

1. **Home-based settings** typically involve a single staff member providing care in their own home to a small group of children.
2. **Centre-based settings** refer to organised ECEC delivered in facilities designed for group-based care, such as early learning centres, creches, kindergartens, preschools or schools.

For systems with home-based settings included in TALIS Starting Strong 2024 (the Flemish Community of Belgium, Israel and the two Canadian provinces), the report compares centre-based settings with home-based ones.

In addition, while not considered as a key dimension of fragmentation, where relevant, the report compares ECEC settings by their size. Setting size captures the position of an ECEC setting within the national distribution of size based on the total number of children enrolled in the setting. Results are presented by tertiles, with the bottom one (smallest settings) used as the reference category.

Finally, to analyse **equity** in ECEC, the report investigates whether key features of ECEC systems and staff's practices vary with the characteristics of the children in the ECEC setting or the target group. This report mainly considers two dimensions of diversity:

1. **Children from socio-economically disadvantaged homes:** Children whose households lack basic resources or conditions necessary for well-being, such as adequate housing, nutrition or access to healthcare.
2. **Children with special education needs:** Children with formally identified learning needs arising from mental, physical or emotional conditions requiring additional support.

This report compares ECEC settings or target groups with 10% or less of children with one of these characteristics to those where this is the case for more than 10% of children.

Relationships between the fragmentation of the sector and risks of unequal opportunities among children

The fragmentation of the ECEC sector can provide flexibility to families and help adapt to children's needs, but it can also contribute to gaps in participation in ECEC, for instance if some segments of the market do not serve remote or disadvantaged geographic areas. At the same time, demographic developments together with rising ECEC enrolment rates for children under age 3 translate into a growing diversity of children participating in ECEC. Families and children of different socio-economic backgrounds are increasingly present in ECEC settings. Another important dimension of diversity relates to special education needs, for which staff report a high level of professional development needs (OECD, 2025^[5]). As the diversity of children under age 3 enrolled in ECEC is growing, a key question is whether the fragmentation of ECEC provision translates into vulnerable children being more likely to be enrolled in some types of ECEC provision. Privately managed ECEC provision, particularly for-profit ones, can involve high fees for parents and generate inequalities in access. In addition to the public-private divide, research suggests large variation of quality within home-based provision (Cadima et al., 2020^[17]).

This section discusses inequalities in the scope and types of ECEC places available to children under age 3. It starts by discussing the scope of unmet demand for places in settings for children under age 3 and how it varies between geographical area and type of setting. The section then discusses the prevalence of children from diverse backgrounds and with diverse needs in ECEC settings for children under age 3 as well as whether the various types of ECEC provision are equally likely to enrol children with diverse characteristics.

Unmet demand prevails in a majority of ECEC settings

In all participating countries and subnational entities, a large majority of settings report that some children could not enrol in their ECEC settings due to a lack of places (Table C.2.5). In the Flemish Community of Belgium, Ireland and Israel, unmet demand concerns higher percentages of settings serving children under age 3 than at pre-primary level. More than 50% of leaders in Ireland, Norway and the two Canadian provinces report that children were placed on a waiting list and are still waiting for a place. In the Flemish Community of Belgium, almost 50% of leaders report there were children who wanted to enrol but could not because of a lack of places and were not put on a waiting list. In Israel, this is the case in more than 20% of settings. In contrast, at pre-primary level, only low percentages of settings indicate that children were not put on a waiting list in the event of a lack of places. This finding reflects better and more transparent information on places in the pre-primary sector compared to the under age 3 one.

In some systems, settings in urban areas are more likely to report unmet demand than those in rural ones

TALIS Starting Strong 2024 data cannot capture whether vulnerable children are equally likely to be accepted in a setting. However, the data allow looking at whether settings in different geographic areas or with different characteristics are equally likely to report unmet demand, which can help approximate inequalities in access to ECEC for children under age 3. In Germany and Norway, leaders in urban areas are more likely to note children who were placed on a waiting list and are still waiting for a place (Table C.2.5). Going in the same direction, in Ireland and Norway, leaders in urban areas are less likely to indicate that all demands were met. These findings suggest that insufficient supply disproportionately affects densely populated areas.

Placing children on a waiting list is less common in home-based and small settings

Among centre-based settings in Ireland and Norway, larger settings are more likely to indicate that children could not be enrolled and were placed on a waiting list, which could either indicate greater unmet demand in dense areas or better processes and capacity to manage unmet demand in large settings compared to smaller ones (Table C.2.6). In line with this second possible explanation, in Israel, smaller and home-based settings are more likely to indicate unmet demand with children not placed on a waiting list (Table C.2.7).

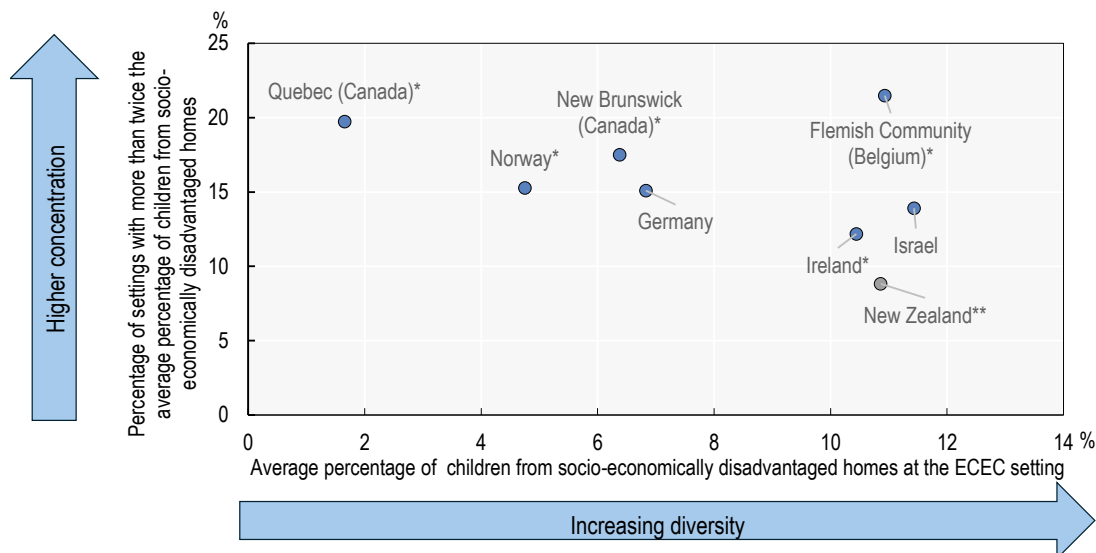
In Germany and Norway, privately managed settings are more likely than public ones to indicate that children were placed on a waiting list and are still waiting for a place (see Table D.3.20 in OECD (2025^[5])). In other systems, no difference appears in public versus private provision concerning practices linked to unmet demand.

In all systems, children from socio-economically disadvantaged homes are concentrated in some ECEC settings

As ECEC for children under age 3 is fragmented, a key question is whether children from socio-economically disadvantaged homes are concentrated in some settings. To approximate the concentration of these children in some settings, Figure 2.10 presents the percentage of ECEC settings in each country and subnational entity where there is more than twice the average percentage of children from socio-economically disadvantaged homes enrolled in ECEC settings. The Flemish Community of Belgium, Ireland, Israel and New Zealand** have similar average percentages of children from socio-economically disadvantaged homes in settings, but these children are more concentrated in some settings in the Flemish Community of Belgium than in Ireland, Israel and New Zealand**. Germany, New Brunswick (Canada) and Norway have intermediate levels of diversity of children in ECEC settings and intermediate concentration of these children in some settings. In Quebec (Canada), the average percentage of children from socio-economically disadvantaged homes in settings is low, but the concentration is high, with 20% of settings with more than twice the average percentage of these children.

Figure 2.10. Concentration of children from socio-economically disadvantaged homes in ECEC settings

Average percentage of children from socio-economically disadvantaged homes in settings for children under age 3 and percentage of settings with more than twice the average percentage



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.2.8.

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In some, but not all, systems, private or private for-profit ECEC settings are less likely to enrol large shares of children from socio-economically disadvantaged homes

Children from socio-economically disadvantaged homes are concentrated in some settings, but also in some types or location of ECEC settings (Table 2.4). In several systems, there are public versus private or private not-for profit versus for-profit divides. In Israel, a higher percentage of public settings serve 10% or more of children from socio-economically disadvantaged homes than private settings do. In Ireland, where the sector is divided between private not-for-profit and for-profit provision, a higher percentage of not-for-profit settings serve 10% or more of children from socio-economically disadvantaged homes. In Ireland, there are more settings with 10% or more of children from socio-economically disadvantaged homes in cities than in small towns and rural areas. This difference is more pronounced than at the pre-primary level, which might reflect a lack of options to enrol children under age 3 in disadvantaged remote areas (Table C.2.9). Similarly in the Flemish Community of Belgium, a higher percentage of not-for-profit settings serve 10% or more of children from socio-economically disadvantaged homes, although the share of for-profit private settings is small (Table C.2.10). In contrast, in Germany, Norway and the two Canadian provinces, ECEC provision is also split between public and private settings and profit status, but no differences are observed between these types of provision in the enrolment of children from socio-economically disadvantaged homes.

Table 2.4. Concentration of children from socio-economically disadvantaged homes by ECEC setting characteristics

Differences in the percentage of settings for children under age 3 with 10% or more of children from socio-economically disadvantaged homes by setting characteristics

+	Concentration of children from socio-economically disadvantaged homes significantly higher in:
-	Concentration of children from socio-economically disadvantaged homes significantly lower in:
	Concentration of children from socio-economically disadvantaged homes is similarly common in:
	Missing values

	City settings (reference category: rural settings)	Privately managed settings (reference category: publicly managed settings)	Privately managed for- profit settings (reference category: privately managed not- for-profit settings)	Centre-based settings (reference category: home-based settings)	Settings in top tertile of setting size (reference category: settings in bottom tertile)	Non-integrated settings (reference category: integrated settings)
Flemish Community (Belgium)*			-			
Germany					+	-
Ireland*	+		-			
Israel		-		-	-	
New Brunswick (Canada)*						
Norway*						
Quebec (Canada)*						
New Zealand**						

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.
Note: ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.2.9, C.2.10, C.2.11, C.2.12 and C.2.13.

StatLink  <https://stat.link/jyfn8o>

In Israel, where half of settings are home-based, these settings are also more likely than centre-based settings to enrol 10% or more of children from socio-economically disadvantaged homes. In the same vein, small settings are also more likely to enrol a higher share of children from disadvantaged homes. However, in the Flemish Community of Belgium and the two Canadian provinces, home-based settings are also widespread, but no differences appear in the enrolment of these children between these two types of provision. In Germany, large settings are more likely to enrol a higher share of children from disadvantaged homes, which might relate to the prevalence of large settings in densely disadvantaged areas. In Germany, integrated settings are also more likely to enrol a higher share of children from disadvantaged homes.

Another potential source of inequality can emerge when settings with specific characteristics are more likely to be found in some geographical areas. For instance, in Israel, settings are more likely to be publicly managed in rural areas, indicating some interactions between setting location and the type of management (Table C.2.14). Likewise, in Quebec (Canada), settings in rural areas are more likely to be home-based, reflecting the potential of this type of provision to serve children and families in sparsely populated areas (Table C.2.15).

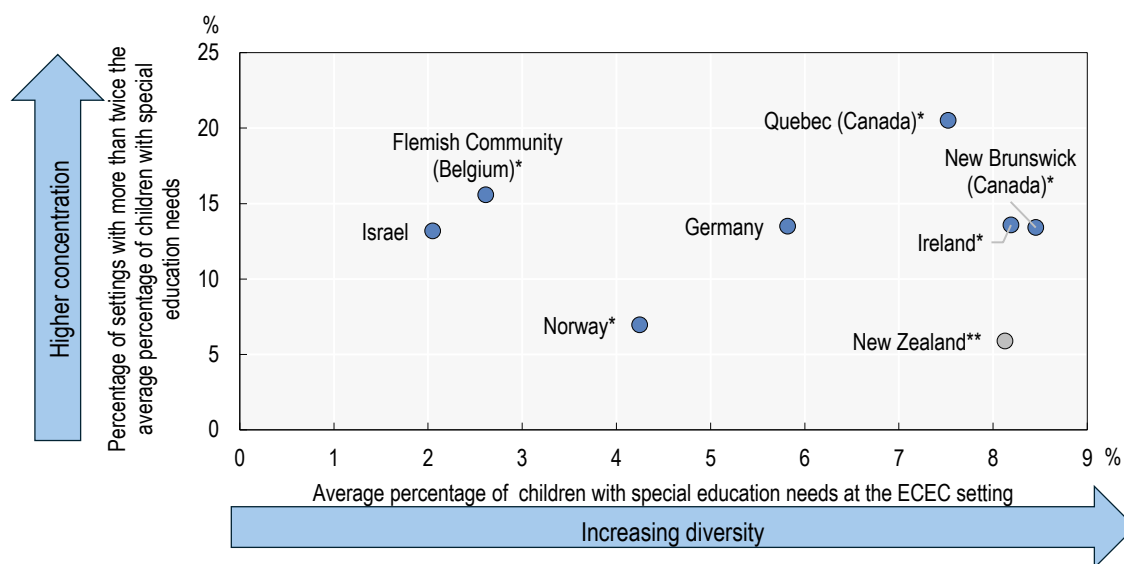
ECEC settings enrol small percentages of children with special education needs, but these children tend to be concentrated in some settings

In all participating systems, settings enrol on average less than 10% of children with special education needs, which can partly be explained by the fact that these needs are less likely to be formally identified at this age (Figure 2.11). Yet the percentages of children with formally identified special education needs as reported by leaders reach 8% or more in Ireland, New Brunswick (Canada) and New Zealand** (Table C.2.8).

Countries and subnational entities differ in the extent to which some ECEC settings tend to serve higher percentages of children with special education needs (Figure 2.11). While the average percentage of these children in ECEC settings differs between the Flemish Community of Belgium, Germany, Ireland, Israel and New Brunswick (Canada), in all these systems, around 15% of settings have a high concentration of children with special education needs (more than twice the average percentage). In Quebec (Canada), the concentration is higher, with 21% of settings with more than twice the average percentage of these children. The concentration is lower in Norway and New Zealand**, where this is the case in slightly more than 5% of ECEC settings.

Figure 2.11. Concentration of children with special education needs in ECEC settings

Average percentage of children with special education needs in settings for children under age 3 and percentage of settings with more than twice the average percentage



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.2.8.

StatLink  <https://stat.link/x90ksc>

In Ireland and Quebec (Canada), ECEC settings in urban areas are more likely than settings in rural areas to enrol high shares of children with special education needs (Table 2.5). In these two systems, there are

also differences depending on the type of management. In the Flemish Community of Belgium, Ireland and New Zealand**, private not-for-profit settings are more likely than private for-profit ones to enrol a high share of children with special education needs. In contrast, the reverse holds in Israel, with private for-profit settings being more likely to enrol a higher share of children with special education needs. In the Flemish Community of Belgium, centre-based settings are less likely than home-based ones to enrol a high percentage of these children. Similarly, large settings are less likely than smaller ones to enrol a high share of children with special education needs in Ireland and New Zealand**, which can perhaps be explained by families' preferences for smaller settings for these children. In Germany, integrated settings are more likely to enrol a high share of these children, which might be explained by the fact that these settings enrol older children who are more likely to have been formally diagnosed.

Table 2.5. Concentration of children with special education needs by ECEC setting characteristics

Differences in the percentage of settings for children under age 3 with 10% or more of children with special education needs by setting characteristics

+	Concentration of children with special education needs significantly higher in:
-	Concentration of children with special education needs significantly lower in:
	Concentration of children with special education needs is similarly common in:
	Missing values

	City settings (reference category: rural settings)	Privately managed settings (reference category: publicly managed settings)	Privately managed for- profit settings (reference category: privately managed not- for-profit settings)	Centre-based settings (reference category: home-based settings)	Settings in top tertile of setting size (reference category: settings in bottom tertile)	Non-integrated settings (reference category: integrated settings)
Flemish Community (Belgium)*			-	-		
Germany						-
Ireland*	+		-		-	
Israel			+			
New Brunswick (Canada)*						
Norway*						
Quebec (Canada)*	+					
New Zealand**			-		-	

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.2.16, C.2.17, C.2.18, C.2.19 and C.2.20.

StatLink  <https://stat.link/q8ztu>

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3

Supporting meaningful interactions and inclusive practices in early childhood education and care

This chapter examines how the organisation of work with children and staff practices with children shape opportunities for high-quality early childhood education and care (ECEC) in settings for children under age 3. Drawing on data from the 2024 Starting Strong Teaching and Learning International Survey (TALIS Starting Strong), it explores how staff time allocation, beliefs about development priorities for children and practices interact with the characteristics of children, groups and settings in a fragmented sector.

Key findings

- **ECEC staff practices target children's social and emotional development, but staff also frequently use some early literacy development practices.** Staff frequently sing songs, read books to children and ask questions when doing so.
- **Staff place a greater value on developing social and emotional and physical skills in children than on other foundational skills.** Executive functions that enable children to focus their attention, follow routines and adapt to new situations are less prioritised than other areas of development, although they underpin all types of learning.
- **Staff practices with children reflect their professional beliefs about developmental priorities for children.** Staff who place a greater value on developing a broader range of social and emotional skills make greater use of practices to foster children's social and emotional development. The breadth of social and emotional skills staff value is also aligned with a greater use of practices to stimulate cognitive development in some systems.
- **In non-integrated settings, children under age 3 are, by design, grouped together. In integrated settings, staff commonly work with mixed age groups of children covering multiple age categories, which may include children ranging from under 1 year old to 6 years and older.** In New Brunswick and Quebec (Canada) and New Zealand**, around half of children in the group are under age 3; the other half are mostly aged 3-4. In Germany and Ireland, groups also include older children. In contrast, in Norway, children under age 3 tend to be grouped together within integrated settings.
- **In systems with integrated settings, staff working primarily with children under age 3 tend to make greater use of specific practices to meet children's needs relative to staff working with more mixed age groups.** This is observed in Germany and Ireland and points to the risks for children under age 3 who are grouped with older children of receiving practices less adapted to their age. In Norway, where children under age 3 are grouped together within integrated settings, staff adapt their practices more to children's age. In the Flemish Community of Belgium and Israel, where settings are specifically targeted at children under age 3, staff in these and in pre-primary settings make different uses of literacy and numeracy development practices.
- **Children in home-based settings may experience different staff practices than those in centre-based settings.** Staff more frequently use practices to support several areas of children's development in home-based settings in the Flemish Community of Belgium and New Brunswick (Canada). However, they allocate less time to documenting children's development, collaborating with parents or direct interactions with children in these settings in some systems.
- **Vulnerable children may not receive the more intensive support needed in some areas of development.** Staff who work in settings with a higher share of children from socio-economically disadvantaged homes only make greater use of practices to support some areas of children's development in Israel, New Brunswick (Canada) and Norway. The same holds for children with special education needs only in Quebec (Canada) for numeracy development practices. When staff and setting characteristics are accounted for, staff make similar and, in some cases, lower use of practices to support children's development when they work with vulnerable children. In some systems, staff in settings with more children from socio-economically disadvantaged homes spend less time in direct interaction with children. These findings point to the need to provide more resources to staff or settings working with higher shares of vulnerable children.

Process quality, or the interactions children have every day with staff and peers, and their engagement in play, activities and routines in early childhood education and care (ECEC) shapes children's learning, development and well-being. For children under age 3, ECEC provides a first life experience interacting with adults and children outside of their home environment. Warm, sensitive and stimulating interactions that are attuned to children's cues and developmental stage form the core of process quality for children at this age (Dalli et al., 2011^[1]; Cadima et al., 2020^[2]). Education and care are intertwined, and physical care is a key aspect of professional practices for children under age 3.

As ECEC sectors expand and serve more diverse groups of children, maintaining and improving quality hinges on sustaining the quality of these interactions with all children, but also on staff's capacity to respond to children's more varied needs and strengths. Research evidence indicates children from disadvantaged and minority backgrounds often experience lower process quality (OECD, 2025^[3]). Some degree of variation in quality across and within ECEC settings is inherent to ECEC systems. Yet such variability is problematic when some groups of children are consistently exposed to lower levels of quality due to their background, needs or the type of setting they attend (OECD, 2025^[3]).

Most countries and subnational entities participating in TALIS Starting Strong 2024 offer home-based provision, though at varying degrees (see Chapter 2). While there is scope for a more robust evidence base, some studies have found that home-based settings tend to be associated with lower quality interactions compared to centre-based ones. Structural characteristics such as size or child-to-staff ratios are often advantageous in home-based settings. However, other aspects related to staff qualifications, regulatory frameworks and their influence on process quality may be less favourable (Eckhardt and Egert, 2020^[4]; Cadima et al., 2020^[2]; Goodson and Layzer, 2010^[5]).

Private settings play a prominent role in many countries' and subnational entities' ECEC systems (see Chapter 2). Studies show that the relationship between private management and process quality differs across countries and tends to reflect differences in investment patterns and resource allocation between publicly and privately managed settings (OECD, 2019^[6]; Cadima et al., 2020^[2]). The type of setting management alone is not a consistent predictor of the quality of child-staff interactions in ECEC settings. Overall, evidence on the extent to which setting management type shapes process quality is mixed and remains limited for provision for children under age 3 (Leseman and Slot, 2025^[7]; Cadima et al., 2020^[2]).

This chapter investigates how the organisation of work with children in settings serving children under age 3, staff time allocation and practices interact with the type of settings and the diversity of children in settings to shape opportunities for quality ECEC experiences. It addresses the following questions:

- What are the characteristics of the groups of children staff most frequently work with?
- How do staff working with children under age 3 allocate their working time across different activities and how does staff time allocation vary across different types of settings?
- What skills and traits do staff view as the most important for children's development? How frequently do staff use practices that support children's learning, development and well-being and how do these practices relate to child, group and setting characteristics?

Understanding the composition of groups ECEC staff work with

TALIS Starting Strong 2024 for settings for children under age 3 includes systems with integrated settings that serve children of different ages before entry into primary education and systems with non-integrated settings that specifically target children under age 3 (see Chapter 2). Research evidence on the role of age composition remains limited, particularly for the youngest children. On the one hand, earlier studies indicated that in centre-based ECEC, mixed age groups or groups with greater age ranges tend to be associated with lower process quality (Cadima et al., 2020^[2]; Eckhardt and Egert, 2020^[8]; Linberg et al., 2019^[9]). On the other hand, evidence of lower quality ECEC provided in home-based settings for children

under age 3 compared with those serving mixed age groups or older children might reflect a likely shift from basic care towards activities that support language and cognitive development when older children are involved (Eckhardt and Egert, 2020^[4]). Mixed evidence on the implications of age composition point to the importance of accounting for a range of structural factors (e.g. staff-child ratios, group size, staff qualifications) that are likely to mediate the relationship between age group composition and the quality of interactions in ECEC (Van Lombergen, Vandenbroeck and Devlieghere, 2025^[10]).

Apart from age, group composition can also be shaped by other characteristics related to children's backgrounds, with implications for staff's behaviour, beliefs and practices. Increasing diversity in ECEC settings means that staff and settings experience new pedagogical and organisational challenges in order to respond to children's and families' more varied needs while also building on the strengths of their experiences and backgrounds (OECD, 2025^[3]). Group composition in terms of children's socio-economic, ethnic or migration background has been shown to affect children's development (OECD, 2018^[11]). For children with special education needs, inclusion in ECEC is reflected in the extent to which they attend mainstream settings, groups or classes as opposed to being concentrated in fully separate special settings, classes or taking part in activities with mainstream peers only occasionally (OECD, 2025^[3]; 2025^[12]).

This section discusses the characteristics of children staff work with on a regular basis and how they vary across systems and types of settings. TALIS Starting Strong 2024 collects evidence on the "target group", defined as the group of children staff worked with the most on their last working day prior to the survey, recognising that working with the target group may not represent everything the staff does. Data on the composition of target groups are not intended to be representative at the country or subnational entity level; rather, they serve to illustrate staff experiences in working with children in their most recent working day. In integrated settings that serve children of different ages up to age 6 and above (see Chapter 2, Box 2.2), only staff who provide learning opportunities for children under age 3 were asked about their work with the target group and the characteristics of that group (see Annex A).

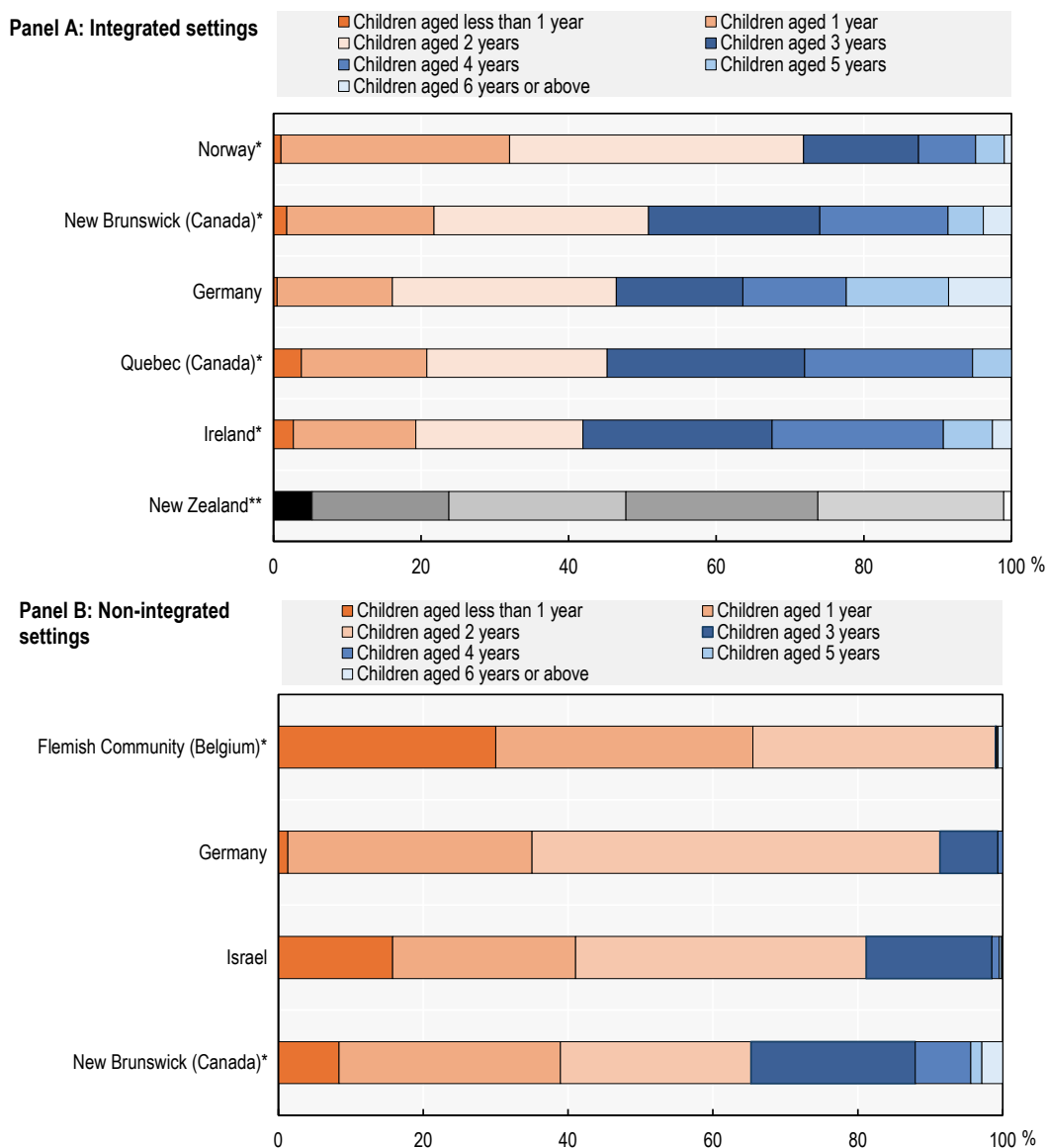
Children under age 3 are grouped together in non-integrated settings while they are mixed with older children in integrated settings

In integrated settings (covering children under age 3 and above, see Chapter 2), target groups serve from multiple age categories, including children aged 6 years and above, though the share of children under age 3 varies widely across systems (Figure 3.1). In both Canadian provinces and New Zealand**, around half of children in the target group are under age 3; the other half are mostly aged 3-4. In Germany, target groups in integrated settings are more heterogeneous, typically comprising children across a broader range of ages (from 3 to 6 years old and above). Norway stands out for the large share of children under age 3 in the target group, even in settings with a minority of children of this age, suggesting that children under age 3 are grouped together. Target groups in non-integrated settings (specific to children under age 3) contrast with those of integrated ones as children under age 3 are, by design of these settings, grouped together. This is the case in the Flemish Community of Belgium and Israel. In Germany, non-integrated settings also mostly cover children under age 3.

In line with system-level data, evidence from TALIS Starting Strong 2024 shows that few children under age 1 are enrolled in ECEC and participation in ECEC tends to increase with age (Table C.3.1). The Flemish Community of Belgium demonstrates a balanced distribution of children across all age groups under 3, indicating that ECEC settings are enrolling children from an early age. This is not the case in most other countries and subnational entities, where fewer than 10% of staff report having children under age 1 in the target group. Combined with the fact that non-integrated settings specifically target children under age 3, target groups on average are composed of the youngest children in the Flemish Community of Belgium, followed by Israel and Norway.

Figure 3.1. Age composition of the target group in integrated and non-integrated ECEC settings

Percentage of children of the following ages who were in the target group, in integrated and non-integrated settings for children under age 3



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The “target group” refers to the group of children with whom staff worked the most on their last working day before the survey. In systems with integrated settings (all systems except the Flemish Community of Belgium and Israel), settings with less than 60% of children under age 3 are considered as integrated and those with 60% or more of children under age 3 are considered as non-integrated (see Chapter 2). Data are missing for non-integrated settings in Ireland and Quebec (Canada) due to an insufficient number of observations.

The figure only shows valid data. Values are not shown because the data were excluded for technical reasons or were based on too few observations to ensure reliability.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.3.1.

The prevalence of vulnerable children in the target group reflects differences in enrolment and setting-level concentration of these children

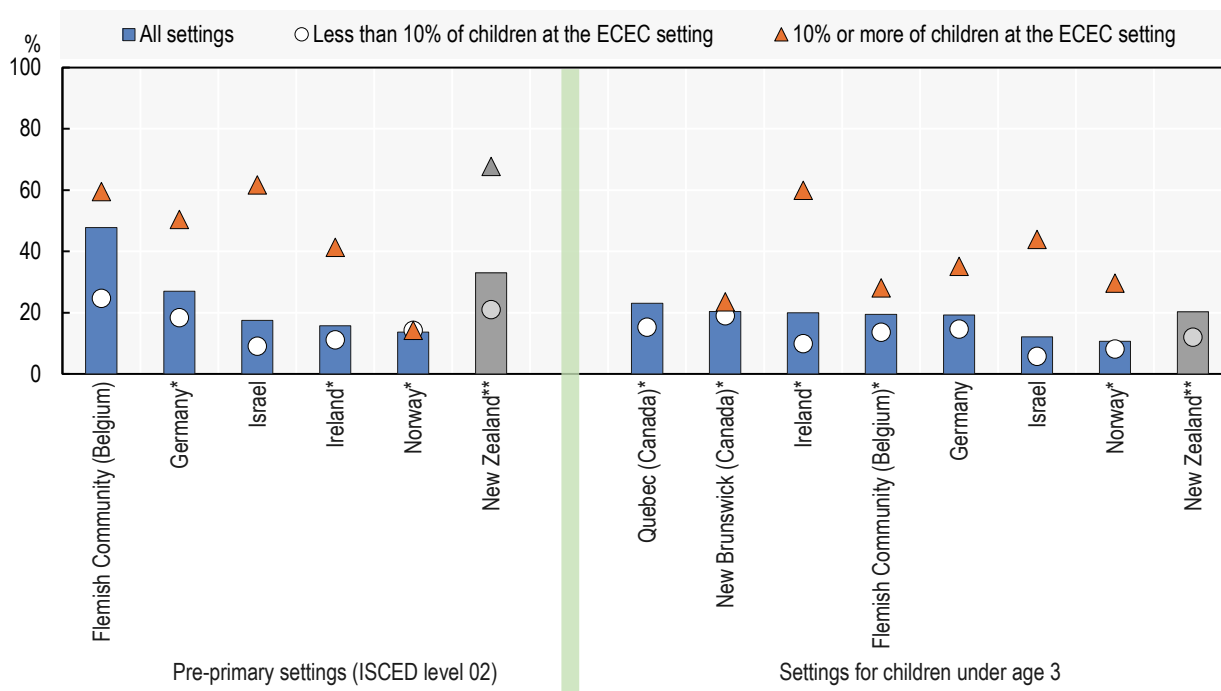
Variation in the degree to which staff work with vulnerable children in the target group across countries and subnational entities partly reflects a combined effect of differences across systems in the average percentages of these children in settings and differences in the extent to which these children are concentrated in some settings (see Chapter 2). Differences in the extent to which vulnerable children are concentrated within settings in some target groups can also contribute to this variation and further amplify setting-level differences.

While target groups are not representative at the country or subnational entity level, staff reports of the share of vulnerable children they work with are representative of staff experiences in working with children. Staff in settings with a greater share of children from socio-economically disadvantaged homes consistently work with higher shares of such children in the target group (Figure 3.2). This pattern is particularly pronounced in Ireland and Israel: in settings with higher shares of children from socio-economically disadvantaged homes, more than 40% of staff report that at least 10% of the children in their group come from socio-economically disadvantaged homes, compared with fewer than 10% of staff in other settings.

The average proportion of children from socio-economically disadvantaged homes in the target group in settings with 10% or more such children ranges from 8% in Norway to 24% in Ireland (Table C.3.2). Settings with higher percentages of children from socio-economically disadvantaged homes also tend to show greater variation in the proportion of these children in the setting. While this may indicate a potential clustering of vulnerable children in specific groups in settings with higher shares of such children, the variation remains limited in some systems.

Figure 3.2. Percentage of children from socio-economically disadvantaged homes in the target group at each ECEC level

Percentage of staff reporting 10% or more children from socio-economically disadvantaged homes in the target group, by setting share of children from socio-economically disadvantaged homes, based on staff and leader reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The “target group” refers to the group of children with whom staff worked the most on their last working day before the survey.

Missing values are due to the question not being administered or having too few observations to ensure reliability.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order according to the percentage of staff reporting 10% or more children from socio-economically disadvantaged homes in the target group at each ECEC level.

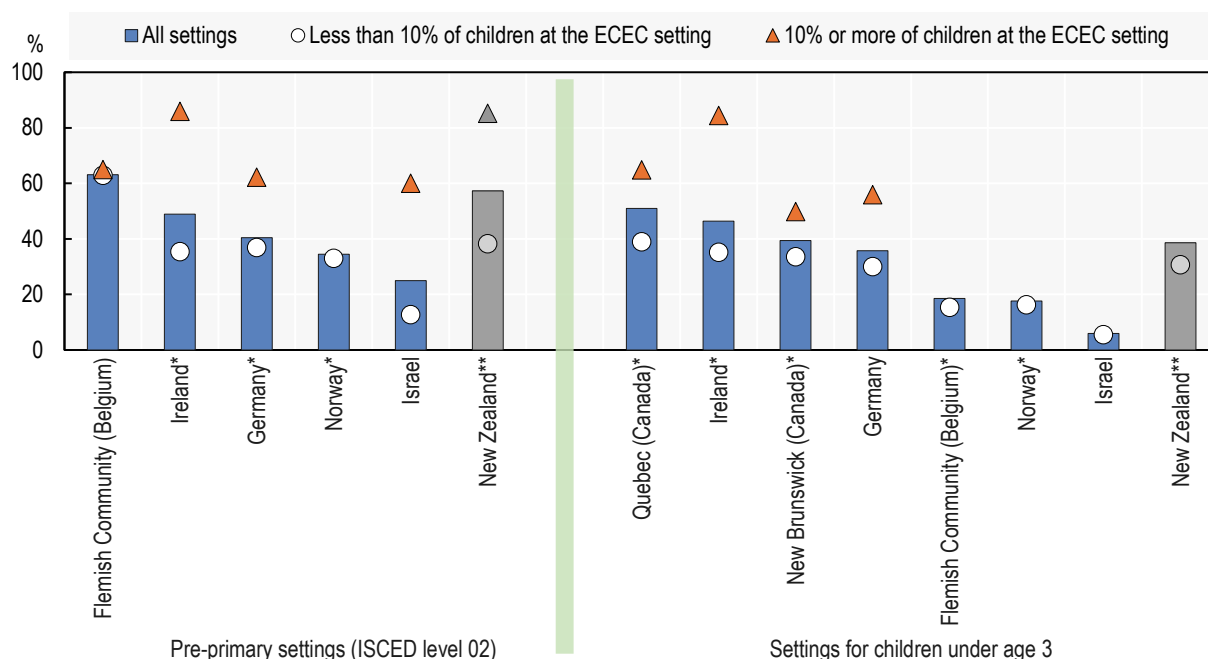
Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.3.3.

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Lower shares of staff in settings serving children under age 3 in the Flemish Community of Belgium, Israel and Norway report working with 10% or more children with special education needs in their target groups, compared to staff in other participating systems (Figure 3.3). This reflects system-level differences in the presence of children with special education needs in ECEC settings (see Chapter 2). Ireland stands out for the wide range between the proportion of children with special education needs in target groups in settings with a high percentage of such children and the proportion of children with special education needs in settings with a lower percentage of such children. Among staff working in settings with 10% or more children with special education needs, more than 80% report that their target group also includes 10% or more such children. By contrast, this is the case for only 35% of staff in other settings. The average proportion of children with special education needs in target groups in settings with higher shares of such children ranges from 13% in New Brunswick (Canada) to 23% in Ireland (Table C.3.4).

Figure 3.3. Percentage of children with special education needs in the target group at each ECEC level

Percentage of staff reporting 10% or more children with special education needs in the target group, by setting share of children with special education needs, based on staff and leader reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The "target group" refers to the group of children with whom staff worked the most on their last working day before the survey.

Missing values are due to the question not being administered or having too few observations to ensure reliability.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order according to the percentage of staff reporting 10% or more children with special education needs in the target group at each ECEC level.

Source: OECD (2025), TALIS Starting Strong 2024 Database, Table C.3.5.

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It should be noted that responses about children's characteristics in the target group reflect staff's perceptions while those in settings reflect leaders' perceptions; discrepancies may thus appear between leader and staff responses. While leaders may have access to families' income levels (e.g. if families need to report household income for ECEC fee or benefits entitlement), staff engage more directly with families on a daily basis. This may provide them with a different view of families' level of disadvantage in absolute terms. Likewise, leaders and staff can have different levels of information on whether children have been formally identified as having a special education need.

Allocating staff time to support quality practices

How staff spend their time is at the core of quality practices in ECEC settings. Working with young children involves balancing a range of tasks, from basic care to more intentional development practices. TALIS Starting Strong 2024 collects evidence on staff time use, focusing on how staff allocate their working time across different activities and how much time they devote to direct interactions with children compared to other tasks. Multitasking while in contact with children is common in all ECEC systems participating in

TALIS Starting Strong 2024 and working longer hours does not always result in more time dedicated to direct interactions with children (OECD, 2025^[13]).

This section explores how staff time use varies across countries and subnational entities and within systems serving children under age 3, contrasting time allocations for staff working in different types of settings.

Staff spend most of their time in direct interaction with children, but in some systems, this is less the case for staff in settings with more children from socio-economically disadvantaged homes

Staff were asked how many hours they spent in total on tasks related to their job at the ECEC setting during their most recent complete calendar week (including any work in the evening, on weekends or other out of setting hours). Overall working hours vary across ECEC systems (for staff working full-time, in a single ECEC setting) from 38 hours in Quebec (Canada) to 46 hours in the Flemish Community of Belgium (Table C.3.6). Longer working hours result in more time spent in direct contact with children at the setting in the Flemish Community of Belgium and New Brunswick (Canada). This is not the case in Israel, where staff report among the longest working hours in comparison to other countries and subnational entities but also the greatest amount of time spent without contact with children at the setting.

In systems with integrated and non-integrated settings (see Chapter 2, Box 2.2), staff working in both types of settings report comparable working hours and when considering all staff, regardless of the number of hours worked, staff in both types of settings devote a similar proportion of their time in direct contact with children. In addition, staff working primarily with children under age 3 in the target group report allocating a comparable share of their time to direct interactions with children as those working with fewer of these children (Table C.3.7). Ireland is an exception, with staff working in target groups with a majority of children under age 3 reporting spending more time in direct contact with children than staff working in mixed age groups. Similarly, staff in public and private settings report comparable working hours and devote a similar proportion of their time in direct contact with children (Tables C.3.8 and C.3.9).

In Ireland and Israel, staff who work with more children from socio-economically disadvantaged homes devote a lower share of their time in contact with children than those working with fewer vulnerable children (Tables C.3.10 and C.3.11). At the same time, in Ireland, settings with higher shares of vulnerable children report higher numbers of staff per child (see Chapter 4). This likely reflects additional funding that enables staff to devote time to tasks beyond direct care, while ensuring children continue to receive direct attention from staff. In Israel, staff in home-based settings devote a lower share of their time interacting with children. To the extent that home-based settings in Israel serve a higher share of children from socio-economically disadvantaged homes than centre-based ones, this suggests that more vulnerable children may receive less direct attention from staff (Table C.2.11).

Staff spend most of their time on planning or preparing play and/or learning activities alone and on routine tasks, alongside direct work with children

TALIS Starting Strong 2024 asks staff how much time they spend on planning or preparing activities alone or with other staff; documenting children's development; collaborating or speaking with parents or guardians from the setting; participating in administrative or management tasks; and on routine tasks (e.g. laundry, cleaning or food preparation). These tasks could overlap with time spent in direct contact with children. Among these tasks, planning or preparing play and/or learning activities alone and routine tasks occupy most of staff's working time in their ECEC settings (Table C.3.12). In contrast, participating in setting management, staff meetings or administrative work is uncommon among staff in most countries and subnational entities.

The amount of time ECEC staff spend on various tasks does not vary much with the percentage of vulnerable children at the ECEC setting. However, staff in settings with a higher percentage of children with special education needs in Israel and New Brunswick (Canada) allocate less of their time to parental engagement than those in settings with fewer vulnerable children (Table C.3.13). While the quality of interactions may matter more than the amount of time staff spend with parents, devoting time to family engagement is an important tool for understanding children's family context and creating bridges with the home environment, particularly for vulnerable children.

Staff allocate less of their time to documenting children's development and collaborating with parents in home-based settings in some systems

Staff time allocations for different activities tend to differ between centre-based and home-based settings (Figure 3.4). In the Flemish Community of Belgium and New Brunswick (Canada), staff in home-based settings devote less time documenting children's development (Table C.3.12). This result warrants attention, as time devoted to documentation is linked with more frequent use of practices that support children's learning, development and well-being (OECD, 2025^[13]).

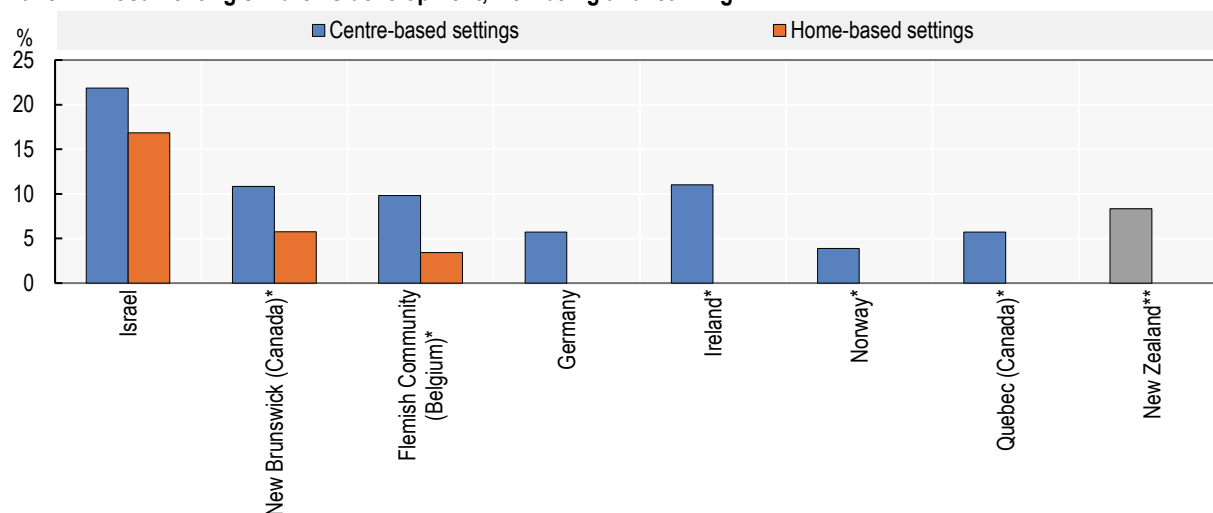
The share of time devoted to parental engagement is also lower in home-based settings in some systems. In the Flemish Community of Belgium and New Brunswick (Canada), staff in home-based settings report spending less time collaborating or speaking with parents than those in centre-based settings. This may reflect the more limited flexibility that staff in home-based settings have to balance care with other responsibilities, due to the absence or limited availability of additional supporting staff (see Chapter 4).

Staff time allocations for other activities at the setting are mostly similar for staff in home-based and in centre-based settings (Table C.3.12). Staff in home-based and centre-based settings devote similar shares of time to planning or preparing activities alone, participating in setting management or on general administrative work, and routine tasks (e.g. laundry). However, staff in centre-based settings devote more time to planning or preparing activities with other staff, reflecting the limited availability of support staff in home-based settings.

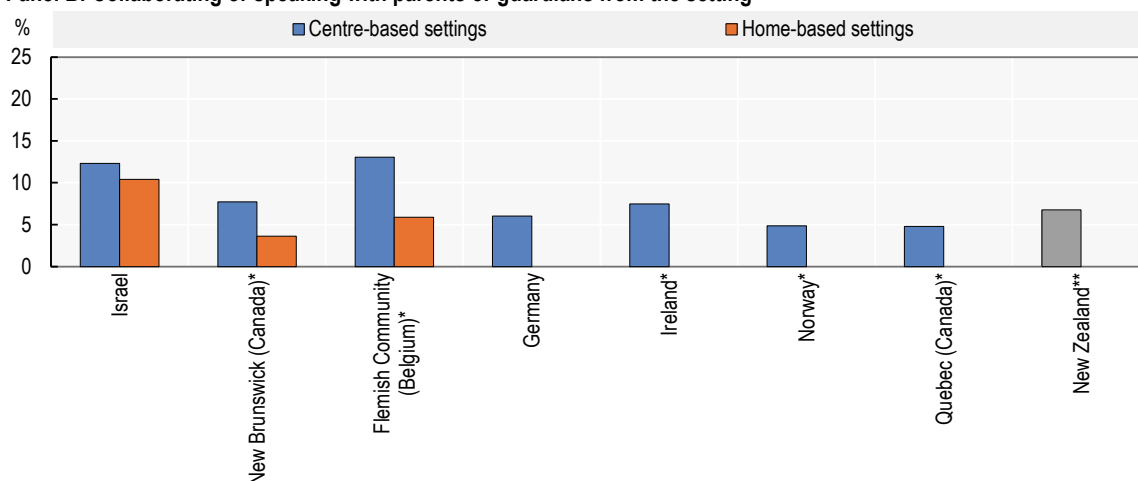
Figure 3.4. Time spent on activities in centre-based and home-based ECEC settings

Average percentage of staff time spent on the following activities during the most recent complete calendar week in settings for children under age 3

Panel A: Documenting children's development, well-being and learning



Panel B: Collaborating or speaking with parents or guardians from the setting



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: A "complete calendar week" is defined as a week not shortened by breaks, public holidays, sick leave, etc. Staff were asked to consider tasks related to their job at the ECEC setting where they received the questionnaire and to round to the nearest whole hour. Staff were asked to include tasks that took place during evenings, weekends or other out of classroom/playgroup/group/ECEC setting hours (including at home). Staff were asked to count time in all appropriate categories, even when activities overlapped.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in ascending order of centre-based settings.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.3.12.

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Building on staff professional beliefs to shape children's development

Staff professional beliefs about children's development, learning and well-being can shape the types of practices they use in their work with children (OECD, 2025^[12]). Earlier studies have found that even after adjusting for structural quality factors (e.g. child-staff ratios, staff experience), staff beliefs about children are strongly tied with pedagogical quality (Pianta et al., 2005^[14]; OECD, 2019^[6]). More recent research suggests though that the relationship between staff beliefs and practices may not be systematic, and other considerations (e.g. staff shortages, programme structure) may constrain the extent to which such beliefs translate into practice (Nilsen, 2021^[15]; OECD, 2025^[12]; Eckhardt and Egert, 2020^[8]).

A range of factors can shape staff professional beliefs, including staff training, cultural factors and the characteristics of the children they work with. For instance, there is mixed evidence on the value staff place on developmental priorities for children from socio-economically disadvantaged backgrounds. Staff working with children from such backgrounds have been found to place a greater value on academic activities and stimulation (e.g. mathematics practices), assuming that children from more advantaged homes already receive strong academic support (Lee and Ginsburg, 2007^[16]). Other studies, however, highlighted that ECEC staff working with children from socio-economically disadvantaged homes prioritised the acquisition of more basic skills or memorising facts over more complex problem-solving tasks (Stipek and Byler, 1997^[17]; OECD, 2025^[12]).

TALIS Starting Strong 2024 asks staff about the skills or traits they believe to be important to develop in children to prepare them for the future. This section examines the skills staff in settings serving children under age 3 highlight as developmental priorities for children and the extent to which professional beliefs are shaped by the context in which staff work, including the type of setting staff operate in and the characteristics of the children they engage with in their daily work.

Staff place a greater value on developing physical and some social and emotional skills in children than other foundational skills, including cognitive ones

Overall, staff place great value on most cognitive, social and emotional skills and learning dispositions, with more than 60% of staff in all countries and subnational entities considering these skills and attitudes to be very important to develop in children to prepare them for the future (Table 3.1).

Staff in most ECEC systems tend to place a greater value overall on physical development, self-care and a range of social and emotional skills than on early learning of content areas or school preparedness. A high share of staff in all countries and subnational entities recognise self-care skills (e.g. feeding oneself, hygiene, dressing), physical and motor skills (e.g. physical exercises, jumping, dancing), and the ability to communicate and co-operate with others and to understand and manage one's own emotions as important for young children to develop. Staff in pre-primary settings also perceived these to be of high importance. In contrast, overall, fewer staff highly value knowledge and skills in specific subjects (e.g. early language, literacy, numeracy, science). Staff also place less emphasis on executive functions that enable children to focus their attention and follow routines, although executive functions, together with emotional regulation, are foundational for all types of learning. The lower priority staff give to executive function may partly reflect the relatively low age of children staff work with in settings for children under age 3.

Preparedness for school, which reflects the extent to which children possess a range of skills and attitudes that provide them with strong foundations for the transition to school, receives overall lower levels of support among staff in a range of countries and subnational entities. This perspective on foundational academic-related abilities may reflect the younger age of children staff engage with in settings serving children under age 3. Yet staff in pre-primary settings in most countries and subnational entities also place a lower emphasis on fostering early learning of content areas and school preparedness.

Staff views on skills and traits to prepare children for the future vary more widely between ECEC systems for other skill areas. In most systems, instilling values related to citizenship, tolerance and openness to other cultures and creativity are less often perceived as top developmental priorities relative to other skills areas. This is, however, not the case in Ireland, Norway and the two Canadian provinces, where staff consider at least one of these values as top priorities. In these systems, joy for exploration and care for the environment also rank quite high.

Staff at both ECEC levels in systems with integrated governance show similar appreciation of skills and traits to be developed in children, but this is not the case in split ECEC systems. In the Flemish Community of Belgium, staff in pre-primary settings value a mix cognitive, socio-emotional skills and learning attitudes while those in settings serving children under age 3 place less emphasis on early learning of content areas, the ability to stay focused, autonomy and responsible decision making, although they value school preparedness. In the Flemish Community of Belgium, children under age 1 make up a considerable proportion of children in settings for children under age 3 (see Figure 3.1), which may partly explain why staff in these settings place less emphasis on some developmental areas. In Israel, staff in pre-primary settings also value more children's early cognitive skills and executive functions.

Within settings at the target group level, the development of a range of foundational cognitive, social and emotional skills, and learning attitudes tends to be regarded in similar ways by staff working with a majority of children under age 3 and those working in mixed age groups (Table C.3.14). Staff in Germany, however, indicate different professional beliefs depending on the age mix of the group they work with. Staff working primarily with children under age 3 in the target group place a lower emphasis on school preparedness, executive functions and citizenship, tolerance and openness to other cultures than those working in mixed age groups.

Table 3.1. ECEC staff professional beliefs about preparing children for the future

Percentage of staff who reported “somewhat high importance” or “very high importance” for developing these skills or traits in children to prepare them for life in the future

	Physical development and self-care skills		Cognitive skills		Socio-emotional skills						Other learning dispositions or attitudes	
			Early learning of content areas	Executive functions	Open-mindedness			Engaging with others		Emotional regulation		
	Self-care skills (e.g. feeding themselves, hygiene, dressing)	Physical and motor skills (e.g. physical exercises, jumping, dancing)	Knowledge and skills in specific subjects (e.g. early language, literacy, numeracy, science)	Ability to stay focused, control impulses and complete tasks	Citizenship, tolerance and openness to other cultures	Creativity, imagination and ability to solve problems	Joy for exploration and learning	Ability to communicate and co-operate with others	Autonomy and responsible decision-making	Ability to understand and manage one's own emotions	Preparedness for school	Interest to care for the environment
	%	%	%	%	%	%	%	%	%	%	%	%
Pre-primary settings (ISCED level 02)												
Flemish Community (Belgium)	99	96	97	93	91	96	99	99	90	99	96	92
Germany*	97	93	73	86	81	93	89	98	97	97	84	69
Ireland*	98	98	72	74	85	90	96	98	84	96	87	87
Israel	96	93	86	91	82	94	90	96	91	95	87	85
Norway*	98	96	74	94	95	90	95	99	78	98	85	87
New Zealand**	96	95	61	74	88	92	98	99	90	96	81	87
Settings for children under age 3												
Flemish Community (Belgium)*	99	97	81	64	76	85	96	94	69	94	91	67
Germany	97	93	73	80	79	90	91	97	94	97	70	64
Ireland*	98	98	74	78	90	93	96	97	88	96	86	89
Israel	94	92	71	88	72	90	85	94	85	93	90	79
Norway*	98	98	74	92	91	94	92	99	74	98	76	84
New Zealand**	98	99	70	77	92	91	97	99	92	98	80	90

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The shading of the cells applies horizontally to the ranking of skills or traits to be developed in children to prepare them for life in the future within countries and subnational entities. Within each country or subnational entity, the most frequently reported skills or traits to develop in children are indicated in darker shades. The least frequently reported skills or traits are indicated in white. Skills or traits reported by intermediate percentages of staff are indicated by intermediate shades. Grey indicates low survey coverage. ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.3.15.

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Staff views about developmental priorities are not uniform across provision types

As ECEC sectors are fragmented, if staff in specific settings hold different beliefs about developmental priorities for children it may shape the practices and experiences children are exposed to in the setting.

Staff in public and private settings in some systems tend to hold different professional beliefs about skills and traits to instil in young children (Table C.3.16). Staff in private for-profit settings in Ireland more often view early learning of content areas as a developmental priority for children relative to staff in private not-for-profit settings. In Israel, staff in private settings tend to more often report executive function as an important skill to develop in children than staff in public settings. Consideration of social and emotional skills is also not uniform across public and private settings. Open-mindedness skills tend to be more highly valued by staff in public settings in the Flemish Community of Belgium (for creativity), while staff in private settings in Israel value more such skills (creativity and citizenship, tolerance and openness to other cultures) than staff in public settings. Staff in private settings in Israel also tend to report more preparedness for school, the ability to communicate with others and autonomy as important skills to develop in children to prepare them for the future.

Staff in home-based or centre-based settings also tend to hold different professional beliefs in some systems. While there is broad agreement among staff regarding the importance of self-care and physical skills for children's development, staff in home-based settings in the Flemish Community of Belgium, Israel and New Brunswick (Canada) are more inclined to value such skills than staff in centre-based settings (Table C.3.15). Staff in home-based settings in these systems also tend to consider more strongly a range of socio-emotional skills (to varying degrees in each system depending on the skill area), including the ability to communicate with others, emotional regulation and open-mindedness.

In some systems, staff in settings with more vulnerable children place a higher emphasis on preparing children for school

Staff views on developmental priorities for children can also be shaped by the characteristics of the children staff are exposed to in their work environments. In some systems, staff in settings with more vulnerable children place more emphasis on specific types of skills as developmental priorities (Tables C.3.17 and C.3.18). Staff in settings with 10% or more children from socio-economically disadvantaged backgrounds support more developing school preparedness and citizenship, tolerance and openness to other cultures in Germany, and joy for exploration in Norway. Germany also stands out for the gap in professional beliefs between staff working with different percentages of children with special education needs: staff in settings with a higher percentage of children with special education needs tend to more highly value the development of school preparedness, executive functions and a range of social and emotional skills than staff in other settings. In Israel and New Brunswick (Canada), staff working with more children with special education needs also place greater importance on the ability to communicate; in Israel they value more school preparedness while in New Brunswick (Canada) they consider early learning of content areas to be less important than staff in other settings.

Differences in staff beliefs appear to be more closely linked with the percentage of vulnerable children in their setting rather than in their target group, suggesting that staff beliefs are likely shaped by the broader context in which staff evolve and familiarity with a variety of children. Only in a few systems do staff professional beliefs vary with the percentage of more vulnerable children in the target group (Tables C.3.19 and C.3.20). This is particularly the case in New Zealand** and Norway, where staff working with more children with special education needs in the target group place a greater emphasis on school preparedness while staff working with more children with from socio-economically disadvantaged homes in the target group in Quebec (Canada) value school preparedness less.

Fostering sensitive, responsive and stimulating staff interactions with children

Close, reciprocal exchanges between staff and children – sustained and increasingly complex over time – enable children’s exploration, learning, emotional regulation and the development of autonomy (Cadima et al., 2020^[2]). Research evidence on process quality in ECEC points to the intertwined nature of a range of practices that, taken together, ensure a child-centred approach that supports children’s development, learning and well-being (OECD, 2025^[12]). Quality interactions for children under age 3 build on staff’s sensitive and responsive reactions to children’s gestures, body and cues, recognising that learning and care are interrelated (OECD, 2025^[12]; Dalli et al., 2011^[1]). Such reactions involve paying attention to learning opportunities within routines and the rhythms of children’s experiences, and adapting practice to children’s developmental stages (Dalli et al., 2011^[1]). Beyond practices to facilitate children’s emotional development, supporting cognitive and language development in the context of play has also been recognised as a core feature of process quality for toddlers (Cadima et al., 2023^[18]).

TALIS Starting Strong 2024 collects evidence on the approaches and activities staff use during their work week to facilitate children’s development. This section examines fairness in children’s exposure to quality practices, with a focus on several types of development practices for children under age 3, including literacy; numeracy; social and emotional development practices (captured through synthetic indicators based on staff reports); and a few selected adaptive, child-centred and responsive practices relevant for children under age 3. To understand the factors that shape staff practices with children, this section discusses how staff professional beliefs, staff and setting characteristics, and the characteristics of the target group are associated with the use of these various practices.

Practices targeting children’s social and emotional development are common, but staff also report frequent use of some early literacy practices

In most ECEC systems, staff use practices supporting children’s social and emotional development more frequently than practices to support their early literacy and numeracy development (Table 3.2). Encouraging children to share and to help each other and helping children express their feelings and comforting them when they are upset are the most common practices to support their social and emotional development in settings serving children under age 3. This pattern aligns with staff beliefs about the importance of emotional regulation and the ability to communicate and co-operate with others as developmental priorities for children (see Table 3.1). More intentional practices such as talking with children about their feelings or helping them understand their feelings are less frequent, potentially due to the children’s young age, although more than 50% of staff in all systems use these practices daily.

While less frequent than activities targeting social and emotional development, early literacy practices are far from uncommon in settings serving children under age 3. Singing songs to children is the most frequent activity staff perform on a daily basis at both ECEC levels in most systems. Staff also frequently read books to children and ask questions when doing so: this is the case for more than 75% of staff in Ireland, New Brunswick (Canada) and New Zealand^{**}. In countries and subnational entities with data at both ECEC levels, higher shares of staff in settings serving children under age 3 in Germany, Israel, New Zealand^{**} and Norway read books daily and ask questions when reading books to children than staff in pre-primary settings.

Staff tend to less frequently use practices that support children’s numeracy development. Helping children to use numbers or count and verbalising maths concepts in everyday routines are the most frequent numeracy practices staff employ, although to a lesser extent than practices to stimulate literacy. In Ireland, New Zealand^{**} and Norway, such practices are almost as frequently used by staff in settings serving children under age 3 as they are by staff in pre-primary settings. This likely reflects the shared curriculum framework across the two ECEC levels in these systems and the presence of integrated settings, which contribute to similar patterns of practice use among staff at both levels. Singing songs with numbers and

using sorting activities by shape or colour are also relatively frequently used in Ireland, Israel, New Brunswick (Canada) and New Zealand**. Yet, in split systems (the Flemish Community of Belgium and Israel), staff in settings for children under age 3 generally make less frequent use of numeracy development practices than staff in pre-primary settings, which is likely to be linked to the younger age of the children in these settings (see Figure 3.1).

Staff practices and professional beliefs about developmental priorities for children are aligned, particularly about the importance of social and emotional skills

The range of practices staff use in their work with children (see Table 3.2) can be synthesised in indicators (or scales) capturing several domains – literacy, numeracy, social and emotional development, child-centred planning – to examine the extent to which children in different settings or who interact with staff with different professional beliefs or characteristics are differently exposed to quality practices (see Annex B).

Staff who have a stronger belief about developing a range of cognitive, social and emotional skills in children make greater use of practices to foster children's development, although the relationship is not consistent across all ECEC systems and development domains. In Germany, Ireland, Israel and New Zealand**, staff who value more social and emotional skills as developmental priorities for children tend to make greater use of practices to support children's emotional development (Figure 3.5; Tables C.3.21 and C.3.22). In Ireland and Israel, a greater emphasis on developing a range of social and emotional skills is also linked with increased use of practices to stimulate children's pro-social development (Tables C.3.23 and C.3.24). These results are robust to differences in structural quality, including staff number per child, staff experience and training, and characteristics of the contexts in which staff work.

Table 3.2. Practices to support children's social and emotional, early literacy, and early numeracy development in ECEC

Percentage of staff who report using each practice once a day or more during the most recent complete calendar week

Social development					Emotional development				Literacy development								Numeracy development						
Encourage sharing	Encourage helping each other	Encourage including others	Encourage comforting each other	Talk about feelings	Help understand feelings	Comfort upset children	Help express feelings	Play word games with the children	Read books to children	Ask questions when reading books to children	Encourage pre-verbal children to point to pictures when looking at a book	Sing songs with or to the children	Engage children in activities that helped them pick out sounds in words	Use synonyms for words to help explain their meaning when talking with children	Use activities for children to make marks	Use sorting activities by shape or colour	Play number games	Sing songs with numbers	Help children use numbers or to count	Verbalis maths concepts in everyday routines	Encourage children to measure items		
Pre-primary settings (ISCED level 02)																							
Flemish Community (Belgium)	84	90	71	76	70	71	88	79	39	61	63	48	78	28	49	55	27	35	21	50	75	24	
Germany*	61	72	63	50	50	51	72	60	25	46	46	38	60	16	20	26	23	19	7	44	54	16	
Ireland*	97	97	94	92	81	83	93	92	29	85	82	71	88	48	48	80	51	42	59	69	67	44	
Israel	85	88	86	84	72	73	82	81	57	59	58	47	74	58	60	62	43	53	40	63	64	48	
Norway*	92	89	83	82	83	82	97	90	30	51	50	32	79	21	36	11	15	12	17	52	60	18	
New Zealand**	88	91	80	85	79	78	88	86	31	76	75	62	83	41	47	75	47	38	52	71	67	40	
Settings for children under age 3																							
Flemish Community (Belgium)*	87	84	60	78	73	70	94	82	35	56	56	49	84	56	44	30	22	10	31	20	28	11	
Germany	65	71	59	49	53	54	78	60	27	53	52	48	69	22	27	26	23	15	11	40	45	14	
Ireland*	96	96	90	92	77	80	93	90	30	84	79	75	90	53	52	75	49	36	59	63	63	40	
Israel	82	87	79	80	71	71	82	76	52	69	65	65	85	59	51	53	44	36	43	49	48	41	
New Brunswick (Canada)*	93	89	83	84	79	81	91	88	39	82	82	78	83	56	55	62	43	33	49	54	55	41	
Norway*	95	96	82	91	85	83	99	91	31	69	64	65	92	34	43	20	16	8	26	49	56	15	
Quebec (Canada)*	91	88	79	84	77	80	91	88	45	78	69	66	82	46	51	30	30	25	38	41	54	32	
New Zealand**	94	98	88	92	89	87	97	92	30	83	79	65	90	36	52	69	44	39	60	72	64	32	

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

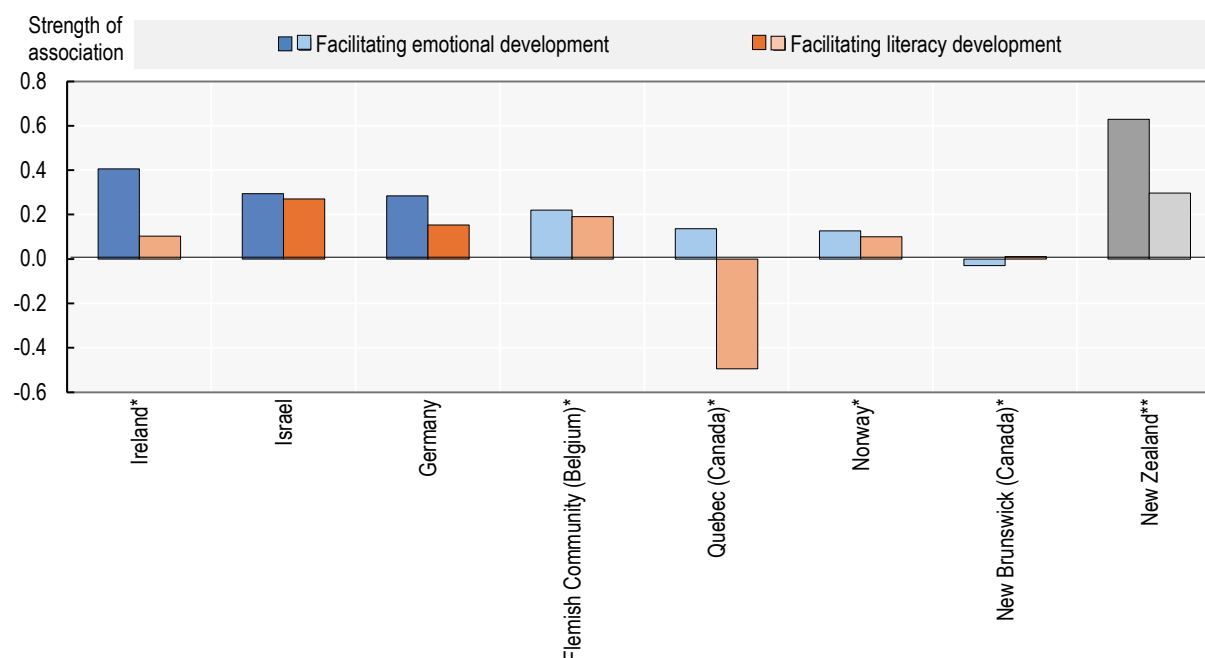
Notes: The shading of the cells applies horizontally to the ranking of practices to support social, emotional, early literacy and early numeracy development within countries and subnational entities. Within each country or subnational entity, the most frequently reported practices for supporting development are indicated in darker shades. The least frequently reported practices are indicated in white. Practices for which intermediate percentages of staff reported using the practice once a day or more are indicated by intermediate shades. Grey indicates low survey coverage.

ECEC: early childhood education and care.

Source: OECD (2025^[13]), *TALIS Starting Strong Database*, Tables D.4.5, D.4.6, D.4.8 and D.4.9.

Figure 3.5. Association between ECEC staff professional beliefs about the importance of developing social and emotional skills in children and staff practices with children

Change in the scales of staff practices to facilitate emotional and literacy development associated with staff in settings for children under age 3 reporting placing a “somewhat high” or “very high importance” importance on developing social and emotional skills in children



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Notes: Statistically significant results are indicated in a darker colour. The figure shows unstandardised coefficients from two multivariable linear regression models of the scales of practices to facilitate emotional and literacy development on a composite indicator of staff professional beliefs about the importance of developing social and emotional skills in children. For more information, see Annex B.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the strength of the association between staff practices with children to facilitate emotional development and staff professional beliefs about the importance of developing social and emotional skills in children

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.3.22 and C.3.26.

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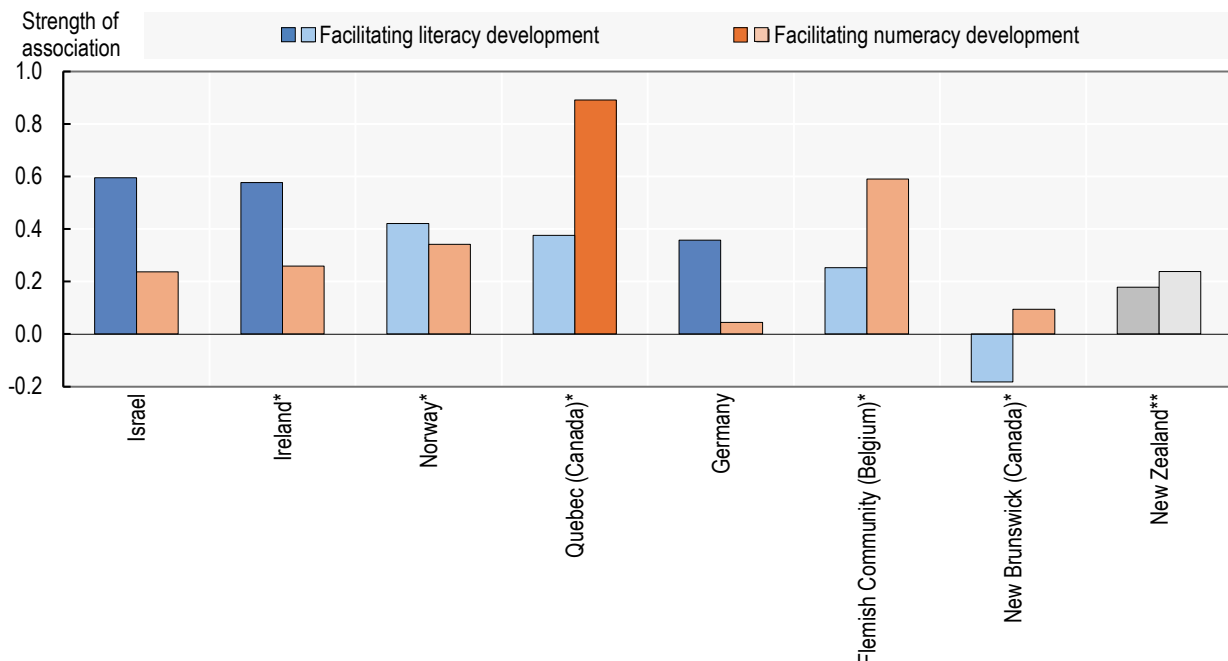
While staff place less emphasis on developing foundational cognitive skills than on fostering children’s social and emotional development (see previous sections), professional beliefs about the importance of cognitive development are also related to greater use of practices that support cognitive growth in some systems. Staff who place a greater value on early learning of content areas are more inclined to use practices that stimulate children’s literacy (in Germany, Ireland and Israel) and numeracy development (in Quebec, Canada) (Figure 3.6; Tables C.3.25, C.3.26, C.3.27 and C.3.28).

Furthermore, when staff place a greater emphasis on some development areas it can spill over into richer practices in other areas of development. The breadth of social and emotional skills valued by staff is also associated with a greater use of practices to stimulate cognitive development in some systems. In Israel, staff who value a wider range of social and emotional skills to be developed in children also tend to make greater use of practices supporting literacy and numeracy development, even when accounting for staff beliefs about the importance of cognitive development (Figure 3.5; Tables C.3.25, C.3.26 and C.3.27).

Also in Israel, staff who work in centres and who place a greater value on early learning of content areas are more inclined to use practices that stimulate children's emotional development (Table C.3.21). In Norway, staff are more likely to read books to children daily when they place a greater value on developing a broader range of social and emotional skills in children (Table C.3.29). Staff who place a greater value on early learning of content areas are also more inclined to respond positively to non-verbal invitations to play (in Germany, Ireland and Israel) (Tables C.3.31 and C.3.32). This suggests that staff practices can benefit children when staff hold a holistic view of child development.

Figure 3.6. Association between ECEC staff professional beliefs about the importance of developing cognitive skills in children and staff practices to facilitate cognitive development

Change in the scales of staff practices to facilitate literacy and numeracy development associated with staff in settings for children under age 3 reporting to place a “somewhat high” or “very high importance” importance on developing knowledge and skills in specific subjects in children



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Notes: Statistically significant results are indicated in a darker colour. The figure shows unstandardised coefficients from two multivariable linear regression models of the scale of practices to facilitate literacy and numeracy development on staff professional beliefs about the importance of developing knowledge and skills in specific subjects. For more information, see Annex B.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the strength of the association between staff practices with children to facilitate literacy development and staff professional beliefs about the importance of developing knowledge and skills in specific subjects.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.3.26 and C.3.28.

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In contrast, professional beliefs about the importance of executive function align less consistently with staff practices. Placing a greater emphasis on the ability to stay focused, control impulses and complete tasks as a developmental priority for children is related to greater use of practices related to child-centred planning in the Flemish Community of Belgium and Germany, but with a lower use of such practices in

Ireland and Norway (Tables C.3.33 and C.3.34). In Norway, staff who give a higher priority to executive function as a development area report a lower use of practices to stimulate children's literacy and numeracy development (Tables C.3.25 and C.3.27), while in Ireland they make less frequent use of emotional development and some literacy practices (Tables C.3.21, C.3.29 and C.3.35). This may suggest shifts in pedagogical practices when staff emphasise children's ability to stay focused, control impulses and complete tasks, as staff may prioritise activities or routines that are less conducive to distractions as well as task competition and behaviour regulation over tasks that require children's sustained attention (such as some literacy or numeracy tasks) or provide flexibility for child exploration.

Staff who work primarily with children under age 3 report greater use of some literacy and child-centred, responsive practices than those working in mixed age groups

Staff working primarily with children under age 3 tend to be more likely to make greater use of specific practices and adapt activities to meet children's needs relative to those working in more mixed age groups. In Germany and Ireland, staff in target groups with a majority of children under age 3 make greater use of literacy development practices than other staff when a range of staff characteristics and structural factors that may influence the use of literacy-related practices are accounted for (Table C.3.25).

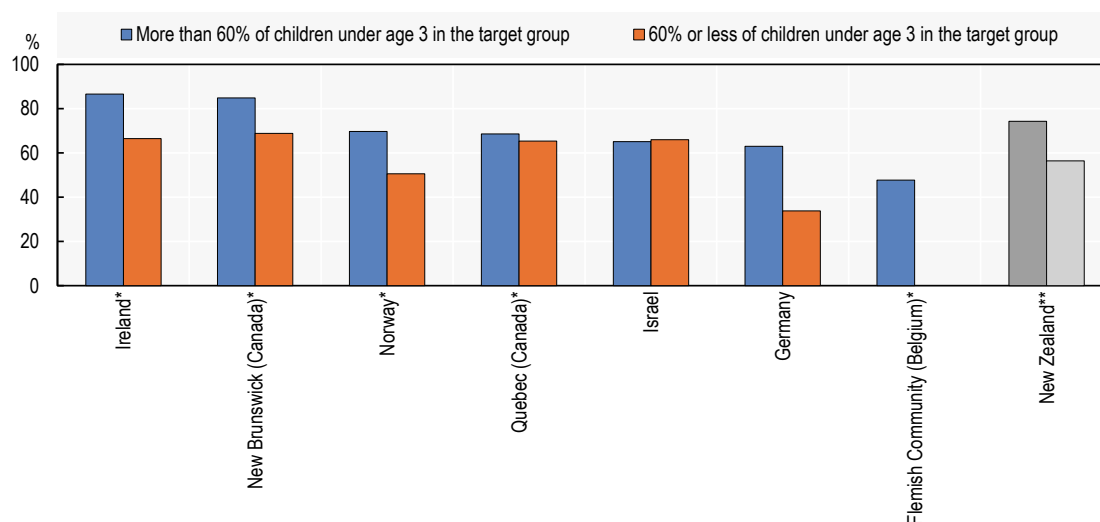
In fact, staff working in groups with a majority of children under age 3 particularly rely upon some practices to support early literacy development. Staff in Germany, Ireland, New Brunswick (Canada) and Norway who work primarily with children under age 3 are more likely to encourage pre-verbal children to point to pictures when looking at a book daily than those working in mixed age groups (Figure 3.7). In Germany, staff who work primarily with children under age 3 are also more inclined to report reading books to children daily than other staff, while no differences emerge between staff working in groups with different age compositions in other systems (Table C.3.37). Despite this, staff in Germany report an overall lower use of such literacy practices compared to staff in other countries and subnational entities (see Table 3.2).

Working in groups with a majority of children under age 3 is also associated with greater use of some child-centred, responsive practices in a few systems. In Germany and Norway, staff working primarily with children under age 3 tend to more frequently respond to non-verbal invitations to play (Table C.3.39). This difference between staff working primarily with children under age 3 and other staff is also found in Germany, New Brunswick (Canada) and Norway when a range of staff and setting characteristics are accounted for (Tables C.3.31 and C.3.32). In Norway, children under age 3 tend to be grouped together even when they are in integrated settings. In Germany, staff working with a majority of children under age 3 in the target group tend to be concentrated in non-integrated settings (see Figure 3.1). This means that children under age 3 in integrated settings in Germany may experience fewer such adaptive practices (as well as practices to support their literacy development) than children in non-integrated settings.

In contrast, staff make more limited use of practices to support children's numeracy development when working primarily with children under age 3 (Tables C.3.27, C.3.28 and C.3.40). This is the case in Germany and Ireland, where staff working in mixed age groups make greater use of numeracy-related practices than those working mostly with younger children. This may reflect a closer alignment with the presence of older children in the group for whom staff and curricular guidance may place a greater emphasis on numeracy development.

Figure 3.7. Practices to support pre-verbal children's early literacy, by percentage of children under age 3 in the target group

Percentage of staff in settings for children under age 3 who reported encouraging pre-verbal children to point to pictures when looking at a book once a day or more than once a day at their ECEC setting during the most recent complete calendar week, by percentage of children under age 3 in the target group



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Countries and subnational entities, except New Zealand**, are ranked in descending order according to the percentage of staff working with more than 60% of children under age 3 in the target group who reported encouraging pre-verbal children to point to pictures when looking at a book once a day or more than once a day at their ECEC setting during the most recent complete calendar week as leader or teacher.

Source: OECD (2025), TALIS Starting Strong 2024 Database, Table C.3.38.

StatLink  <https://stat.link/3voy7x>

In most systems, practices in ECEC centres for children under age 3 are similar across settings, regardless of setting management and profit status

In most countries and subnational entities, staff in public and private settings tend to report similar uses of a range of literacy, numeracy, and social and emotional development practices (Table C.3.41). While public and private not-for-profit settings are generally more likely to enrol a high share of vulnerable children (see Chapter 2), staff in these settings tend to employ similar practices. Exceptions include the Flemish Community of Belgium, where staff in private for-profit settings report a greater use of practices to support numeracy development than staff in not-for-profit settings, and Ireland, where the same pattern holds for practices to support literacy development. When staff training, experience and beliefs, other structural quality conditions, and the composition of the group of children in the centre (as home-based settings cannot be included in the analysis) are accounted for, differences in practices by type of centre management disappear in the two systems (Tables C.3.21 and C.3.27). These findings indicate a lack of systematic differences in staff practices between public and private, for-profit and not-for-profit centre-based settings, but possible differences are due to differences in structural conditions or the characteristics of the children enrolled, which is in line with evidence from other research (OECD, 2019^[6]; Cadima et al., 2020^[2]).

In a few systems, however, setting management and profit status are associated with differential staff practices with children once staff and setting characteristics are accounted for, pointing to the potential

role of other organisational or pedagogical factors in shaping staff interactions with children. This is particularly the case in Germany, where practices related to child-centred planning and literacy development are more frequent among staff in private not-for-profit and public (only for literacy development) centres (Tables C.3.25 and C.3.33). Staff in private not-for-profit centres in Germany also rely more on emotional development practices than staff in private for-profit centres (Table C.3.21). In Israel, staff in public centre-based settings make greater use of numeracy development practices (Table C.3.27).

Children in home-based settings tend to experience different staff practices than those in centre-based settings in some systems

In systems with home-based provision, staff in centre-based and home-based settings tend to differ in some of the practices they use in their work with children (Table C.3.42). When staff and setting characteristics are not accounted for, in the Flemish Community of Belgium, staff in home-based settings report a greater use of practices that facilitate pro-social development, literacy, numeracy and child-centred planning. Staff in home-based settings in New Brunswick (Canada) also rely more extensively on practices to support children's literacy, numeracy, pro-social and emotional development relative to staff in centre-based settings. Staff use of practices in these systems aligns with their professional beliefs about developmental priorities for young children: staff in home-based settings in the Flemish Community of Belgium and New Brunswick (Canada) place a stronger emphasis on the role of a range of social and emotional skills for children's development than staff in centre-based settings (see Table 3.1). In contrast, staff in Israel employ literacy, numeracy, and social and emotional development practices in similar ways irrespective of the type of setting in which they work.

When staff beliefs, education and experience, and a range of other structural quality conditions are accounted for, staff in home-based settings in the Flemish Community of Belgium still report a greater use of practices that facilitate literacy and numeracy development than staff in centre-based settings (Tables C.3.26 and C.3.28). The prevalence of differences in staff practices between home-based and centre-based settings even after accounting for a range of staff and setting characteristics point to factors that are structurally related to these types of settings, such as differences in the physical environment and in the type of work, either in teams or in isolation.

In some systems, groups with more children from socio-economically disadvantaged homes receive less consistent support across certain areas of development

In some systems, staff who work in settings with a higher share of children from socio-economically disadvantaged homes make greater use of practices to support some areas of children's development. This is the case for emotional development in Israel, New Brunswick (Canada) and Norway and for numeracy development also in Israel (Table C.3.43). However, results suggest that staff who work with target groups with a higher share of children from socio-economically disadvantaged homes do not make greater use of practices to support children's development, except for Germany for emotional and numeracy development and Israel for emotional development and child-centred planning. In contrast, in the Flemish Community of Belgium, staff report a lower use of practices in several areas of children's development when they have a higher share of vulnerable children in the target group (Table C.3.44). This suggests that vulnerable children might receive more intensive support when they are in settings with a higher percentage of vulnerable children, but that they are more likely to be in groups that benefit from fewer practices to facilitate children's development. These findings should, however, be interpreted with caution as there is little evidence that settings with a higher share of vulnerable children receive more resources (see Chapter 4).

In the same vein, when staff beliefs, education and experience, and a range of other structural quality conditions are accounted for, in most systems, staff who work with more vulnerable children do not appear

to make a differential use of practices to support children's development or to adapt to young children's needs. In almost all systems, the use of practices related to child-centred planning (Table C.3.34) or that support children's literacy (Table C.3.26) and pro-social development (Table C.3.24) is unrelated to the percentage of children from socio-economically disadvantaged homes in the target group.

In addition, in some systems, staff report less frequent use of some practices when interacting with more vulnerable children, even after accounting for staff and setting characteristics. In Quebec (Canada), staff working with higher shares of children from socio-economically disadvantaged homes report less frequent use of emotional development (Tables C.3.21 and C.3.22) and numeracy practices (Tables C.3.27 and C.3.28). In Ireland and Israel, staff in centre-based settings are less inclined to respond positively to non-verbal invitations to play (Table C.3.31), while in Israel, staff are less inclined to adapt daily activities to children's natural rhythms (Tables C.3.46 and C.3.47) or engage in some literacy practices (e.g. reading books or encouraging pre-verbal children to point to pictures when looking at a book) (Tables C.3.29 and C.3.35) when they work with more children from socio-economically disadvantaged homes. In contrast, in the Flemish Community of Belgium, staff working with more children from socio-economically disadvantaged homes are more inclined to adapt daily activities to children's natural rhythms (Tables C.3.46 and C.3.47).

Staff use practices with similar frequency across groups with varying special education needs

While staff in some systems tend to hold different professional beliefs about developmental priorities for children (see above) when they work with more children with special education needs, staff also tend to report similar practices irrespective of the percentage of children with special education needs in their settings (Table C.3.45). The only exception is Quebec (Canada), where staff in settings with higher shares of children with special education needs report lower use of practices to support numeracy development.

When staff beliefs, education and experience, and a range of other structural quality conditions are accounted for, in most systems, staff working with higher shares of children with special education needs in the target group report similar uses of a range of practices as staff working with fewer such children. Only in Israel do staff report greater use of emotional development (Tables C.3.21 and C.3.22) and literacy practices (Table C.3.26) and are more likely to adapt daily activities to children's natural rhythms (Tables C.3.46 and C.3.47) when they work with 10% or more children with special education needs. Yet staff in centre-based settings in Israel also report less use of numeracy development practices (Table C.3.27), suggesting that staff may prioritise some developmental areas when working with more children with special education needs.

In contrast, in Quebec (Canada) and New Zealand**, the presence of more children with special education needs in the target group is associated with fewer reported practices to support children's development. This is the case for practices to facilitate literacy development in centre-based settings in Quebec (Canada) (Table C.3.25) and in relation to child-centred planning in New Zealand** (Tables C.3.33 and C.3.34), which tend to be less frequent when staff interact with more children with special education needs.

These results show that no clear pattern emerges in the way staff engage in practices with children with special education needs. Whether staff adapt their practices to ensure similar levels of use as those working with fewer children with special education needs or staff apply broadly similar approaches irrespective of the level of vulnerability in the group, these findings point to the importance of training and support to enable staff to respond effectively to children's diverse needs. Yet staff report relatively limited participation in professional development to support children with special education needs despite high self-reported needs in this area (see Chapter 4).

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4

Aligning resources with needs across the early childhood education and care system

This chapter examines how human and material resources are distributed across early childhood education and care (ECEC) settings serving children under age 3 and the extent to which they support quality and equity in ECEC systems. The chapter analyses workforce capacity, including staff roles, experience, qualifications and training, and how these align with the needs of settings serving vulnerable children. It also explores differences in the availability of physical and material resources across settings and whether constraints related to environment and staffing resources are concentrated in settings serving higher shares of vulnerable children. The chapter further examines how working conditions, including job satisfaction, workload and stress, relate to staff well-being and intentions to leave the profession.

Key findings

- **Workforce capacity in ECEC settings serving children under age 3 is limited in terms of qualifications and experience and is often not aligned with the needs of vulnerable children.** Staff are generally less experienced and hold lower qualifications than those in pre-primary education, except in Germany and Norway. In some systems, settings serving higher shares of vulnerable children have less experienced staff.
- **Staff training focuses on supporting children's social and emotional development while coverage of other early learning areas that support children's cognitive development across all domains is less common.** Across systems, initial training and professional development place a greater emphasis on children's social and emotional development than on early learning areas such as language and numeracy. In Israel and Norway, such training is also more common in settings serving higher shares of children from socio-economically disadvantaged homes.
- **Professional development to support vulnerable children is not aligned with staff needs, particularly in settings serving higher shares of vulnerable children.** Across systems, while many staff report a need for training to work with children with special education needs, children from disadvantaged backgrounds and those from diverse language backgrounds, recent participation in such training is limited. In Germany as well as in New Brunswick and Quebec (Canada), staff in settings serving higher shares of vulnerable children report greater needs.
- **Staffing levels are not always aligned with the needs of settings serving vulnerable children.** Across most systems, with the exception of Ireland, staff number per child does not vary according to the percentage of vulnerable children within the setting. Shortages of specialised staff are also more often perceived as barriers to quality in settings serving higher shares of vulnerable children in Germany, Israel and New Brunswick (Canada).
- **Physical infrastructure is generally reported as adequate across most settings, although ventilation and background noise are common challenges.** In Germany and Norway, a higher share of settings report issues related to ventilation and background noise. At the same time, physical constraints are more frequently perceived as barriers to quality in settings serving higher shares of children from socio-economically disadvantaged homes in the Flemish Community of Belgium and Israel.
- **Centre-based settings tend to offer permanent employment and shorter working hours while staff in home-based settings more frequently report higher satisfaction with their salary.** In the Flemish Community of Belgium, Israel and New Brunswick (Canada), staff in centre-based settings are more likely to report permanent employment, whereas home-based settings show more diverse work arrangements and longer working hours. In Israel and New Brunswick (Canada), staff in home-based settings are also more likely to be satisfied with their salary.
- **Intentions to leave the ECEC profession are higher in high-stress contexts, but job satisfaction can mitigate this effect.** Stress linked to staff absences and multitasking is widespread and staff working in settings serving higher shares of vulnerable children more often report work-related stress and intentions to leave their role. Job satisfaction is associated with lower intentions to leave in most systems, reflecting that improvements in working conditions to reduce workloads may help retain staff.

Introduction

Children under age 3 require particularly intensive attention and support in ECEC settings. At this stage of development, they are highly dependent on stable and responsive relationships with caregivers and benefit from individualised interactions that support early social and emotional as well as cognitive development (van Trijp et al., 2025^[1]; Black et al., 2017^[2]). Meeting these developmental needs depends not only on the practices of individual staff members (see Chapter 3), but also on the broader conditions under which ECEC provision operates. Even where staff are well-prepared, insufficient staffing capacity or limited setting resources can constrain responsiveness, increase workload and undermine the quality of interactions with young children (OECD, 2025^[3]).

Across countries and subnational entities, system architecture and policy arrangements play a central role in shaping how resources are distributed within ECEC systems (Leseman and Slot, 2025^[4]). Differences in funding models, regulatory frameworks and workforce policies that affect the services provided to pre-primary and settings for children under age 3, as well as fragmentation within provision for children under age 3, can lead to uneven access to financial, material and human resources. These differences are particularly important in settings serving children under age 3, where work demands are high and provision can operate under varying regulatory and funding conditions compared to pre-primary settings (see Chapter 2).

From an equity perspective, a key question is whether resources are aligned with the needs of the children served. Settings serving higher shares of vulnerable children often face greater demands related to education and care, communication with families, and support for diverse needs, yet may also operate with more constrained resources. Where such misalignments occur, children may experience fewer opportunities for sustained, high-quality interactions with staff. These disparities are of particular concern given evidence that vulnerable children are often more likely to attend settings operating under greater resource constraints (González-Sancho et al., 2023^[5]).

This chapter draws on data from the 2024 Starting Strong Teaching and Learning International Survey (TALIS Starting Strong) to examine how workforce capacity and setting resources are distributed in ECEC settings serving children under age 3, and how these conditions relate to staff experiences of stress and intentions to leave the profession. Specifically, the chapter addresses the following questions:

- How does workforce capacity in ECEC settings vary across and within systems, and how do staff roles, experience, initial education and professional development differ by setting characteristics?
- How does the availability and adequacy of physical and material resources vary across ECEC settings and to what extent do resource constraints related to setting environment and staffing affect quality provision in settings serving higher shares of vulnerable children?
- How are workforce and setting resources associated with staff working conditions, well-being and intentions to leave the profession and do these associations differ by setting characteristics?

Building workforce capacity to meet the needs of children under age 3

High-quality provision in settings serving children under age 3 depends critically on the workforce's capacity to respond to young children's intensive care and developmental needs in their daily practice. Structural conditions such as smaller group sizes or the presence of supporting staff can create opportunities for individualised attention (Dalgaard et al., 2022^[6]). However, these conditions alone do not guarantee quality. Staff also require adequate initial preparation and sustained access to quality professional learning that meets their needs to implement practices that support children's development across domains and respond to diverse needs (see Chapter 5).

Workforce capacity can vary substantially between and within systems. Requirements related to staff qualifications, ratios or supervision often differ across provider types, including between centre-based and home-based provision and between publicly managed, privately managed not-for-profit and privately managed for-profit settings (Vandenbroeck, Slot and Hulpia, 2021^[7]; Leseman and Slot, 2025^[4]; Eckhardt and Egert, 2020^[8]). In many systems, regulatory standards may be applied more consistently, or set at higher thresholds, in centre-based services than in home-based ones (OECD, 2025^[3]). Financial resources further influence settings' capacity to attract qualified staff and providers operating under tighter financial margins may face greater constraints in investing in staff competencies and ongoing training (Leseman and Slot, 2025^[4]; OECD, 2021^[9]; 2025^[10]).

From a quality perspective, these possible systemic differences matter because achieving uniform quality ultimately depends on workforce capacity across all setting types. Where staff lack structured support or access to professional development that meets their needs, they may face greater workload pressures, less time for pedagogical work and higher levels of strain. These challenges can be particularly pronounced in settings serving higher shares of vulnerable children, where work demands are more complex and the need for skilled staff is higher (González-Sancho et al., 2023^[5]).

This section focuses on several aspects of workforce capacity: staff roles, experience, qualification levels and access to professional development aligned with staff-reported needs for supporting children's diverse learning and development. It examines how workforce capacity in settings serving children under age 3 varies across and within ECEC systems.

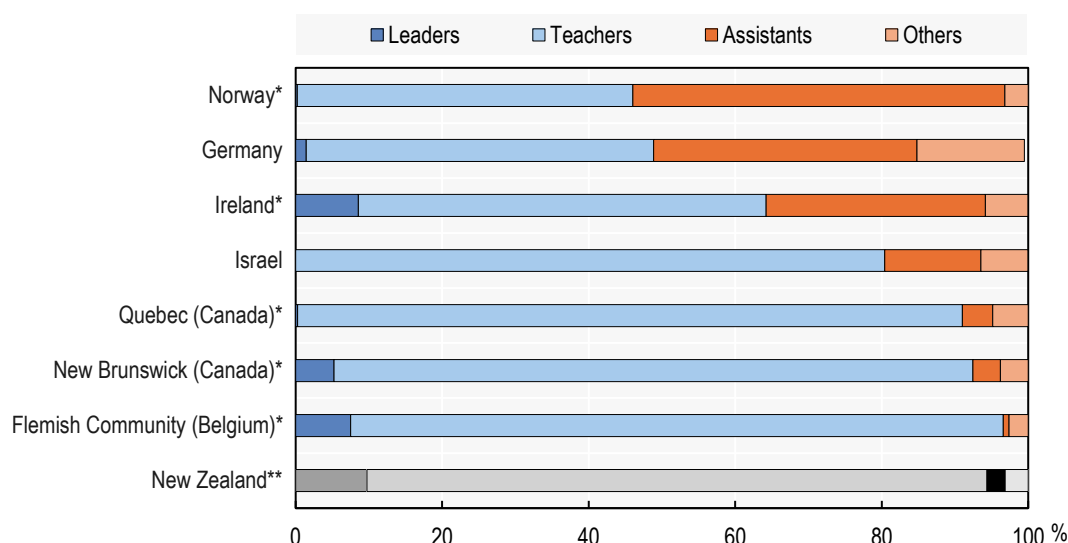
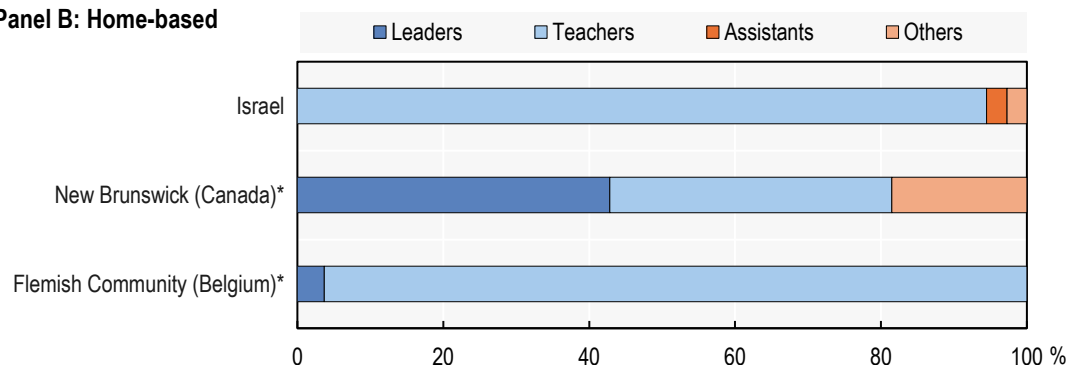
In many systems, settings serving children under age 3 rely on limited supporting staff

Settings serving children under age 3 often rely on relatively limited differentiation of staff roles. Teachers account for more than 80% of staff in several systems, including the Flemish Community of Belgium, Israel, New Brunswick and Quebec (Canada), and New Zealand** (see Table Staff.3 in OECD (2025^[3])). In these contexts, assistants and other supporting roles represent only a small share of the workforce. By contrast, in Germany, Ireland and Norway, settings more commonly rely on a mix of teachers, assistants and other supporting staff, indicating greater role differentiation.

Within systems, staff composition also varies by provision type, particularly between centre-based and home-based settings (Figure 4.1). In Israel, assistants are more prevalent in centre-based settings, whereas home-based settings predominantly rely on teachers alone. In New Brunswick (Canada), home based settings report a higher share of staff identifying as leaders and a lower share of staff identifying as teachers, suggesting that administrative and managerial responsibilities are often concentrated in a staff member who also works directly with children. At the same time, around 20% of staff in home-based settings in New Brunswick (Canada) report holding other supporting roles, indicating that some home-based services operate with additional staff who can support administrative and pedagogical functions. In the Flemish Community of Belgium, supporting roles are limited across all settings and most staff report their role as a teacher, particularly in home-based settings, where they work alone. In this context, most of these settings are affiliated to a service, which provides organisational and pedagogical support to staff, which can offset the demands of working alone in home-based provision (see Box 2.1 in Chapter 2).

Figure 4.1. ECEC staff roles by provision type

Percentage of staff in settings for children under age 3 by role and provision type, based on staff reports

Panel A: Centre-based**Panel B: Home-based**

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Notes: Leaders without staff duties and leaders with staff duties who were identified as the person with the most responsibility for the administrative, managerial and/or pedagogical leadership in the ECEC setting did not respond to this question.

Teachers are the individuals with the most responsibility for a group of children at the classroom or playroom level and may be referred to as pedagogues, educators or childcare practitioners.

Assistants include individuals assisting with the care and education of children (e.g. assistants, auxiliary staff) in the ECEC setting.

Others include staff for individual children, staff for special tasks and interns.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in ascending order according to the percentage of staff who identify as a leader or teacher.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.4.1.

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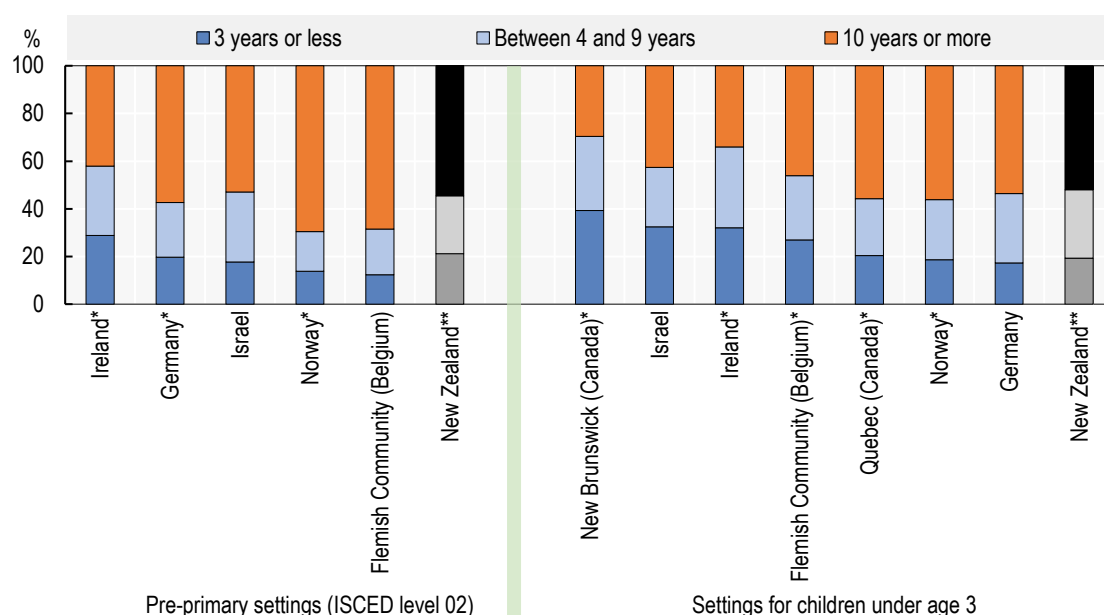
Staff working with children under age 3 tend to have limited experience, especially in settings serving higher shares of vulnerable children

In several systems, including the Flemish Community of Belgium, Ireland, Israel and New Brunswick (Canada), around 30-40% of staff in settings serving children under age 3 report having 3 years of

experience or less, while the share of staff with 10 years of experience or more is comparatively lower in New Brunswick (Canada) (Figure 4.2). Across systems participating in both levels of ECEC, staff working with children under age 3 are generally more likely to have relatively limited experience compared to those working in pre-primary education. A relatively novice workforce (with three years of experience or less) may bring advantages, including exposure to more recent training covering innovative approaches (OECD, 2025^[3]). At the same time, limited experience can present challenges, particularly in contexts where staff manage multiple responsibilities across care, emotional support and pedagogical practices to support child development and learning, often with limited organisational support.

Figure 4.2. Years of experience as ECEC staff

Based on staff reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.
Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order according to the percentage of staff with three years of experience or less.

Source: OECD (2025^[3]), *TALIS Starting Strong 2024 Database*, Table D.2.10.

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Within systems, differences in staff experience are linked to provision type and management and profit status arrangements, but patterns are not consistent across contexts. In the Flemish Community of Belgium, home-based settings are more likely to be staffed by more experienced staff than centre-based settings (Table C.4.2), which may help mitigate the organisational demands in home-based settings where staff work alone. In Norway, publicly managed settings report higher shares of more experienced staff than privately managed settings (Table C.4.3). By contrast, in the Flemish Community of Belgium, publicly managed settings report comparatively higher shares of novice staff. In Israel, privately managed for-profit settings report higher shares of more experienced staff, while in Ireland, privately managed for-profit settings report higher shares of less experienced staff.

The distribution of experienced staff across settings does not always align with vulnerable children's needs. In Israel, settings serving higher shares of children from socio-economically disadvantaged homes

cumulate higher shares of novice and fewer staff with ten or more years' experience (Table C.4.4). Similarly, in Germany, settings serving higher shares of children with special education needs less often report staff with ten years of experience or more. By contrast, in Ireland, such settings report higher shares of more experienced staff.

Staff who work with children under age 3 generally have lower qualifications than staff in pre-primary education, although practical training is widespread

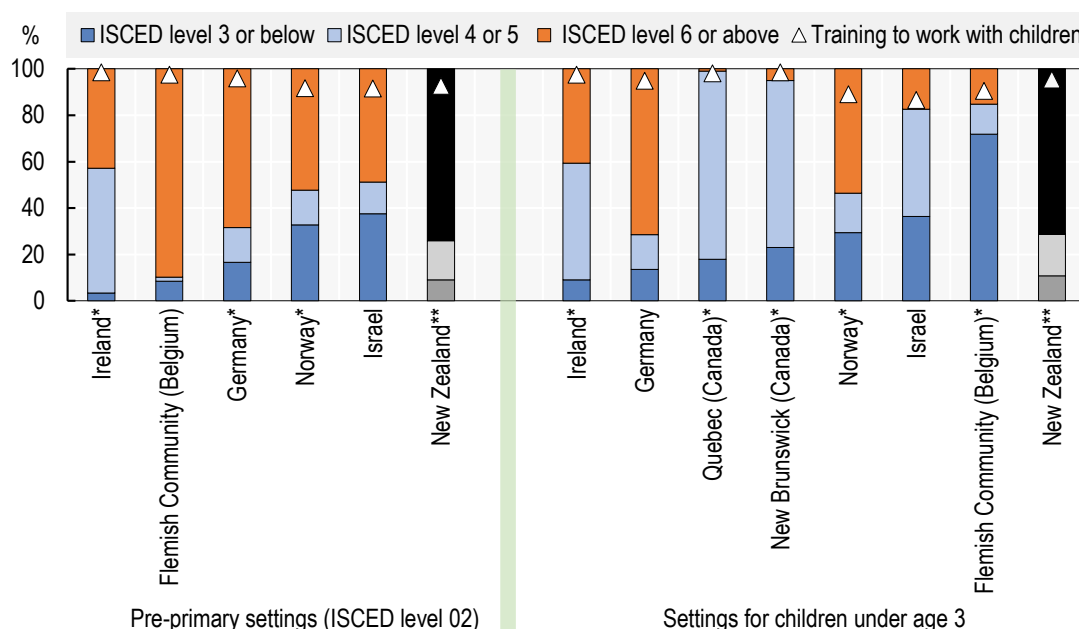
In several participating systems, staff working with children under age 3 generally report lower levels of initial education than staff working in pre-primary education (Figure 4.3). In the Flemish Community of Belgium, around 90% of staff in pre-primary education report an education level of ISCED level 6 or above, compared to fewer than 20% of staff in settings serving children under age 3, reflecting differences in minimum qualification requirements in a split system (see Chapter 2). Similarly, in Israel, fewer than 20% of staff in settings serving children under age 3 report qualifications at ISCED level 6 or above while almost half of pre-primary staff report qualifications at this level. By contrast, in Norway, where the system is integrated and qualification requirements are set for the entire system, a majority of staff working with children under age 3 report education at ISCED level 6 or above, similar to those in pre-primary education.

Within systems, differences in qualification profiles are also linked to provision and setting type, reflecting differences in regulatory requirements and varying setting capacities to attract and retain more highly qualified staff. In Israel, staff in home-based settings are more likely to report qualifications at ISCED level 4 or 5 while centre-based settings employ a higher share of staff with lower qualifications (Table C.4.5). Privately managed settings in Norway report higher shares of staff with an education at ISCED level 6 or above than publicly managed settings (Table C.4.6). In Germany, differences emerge between integrated settings and non-integrated settings (see Chapter 2 for definitions), with integrated settings reporting a higher share of staff qualified at ISCED level 6 or above (Table C.4.7).

Despite differences in formal education levels, practical training is widespread among staff working with children under age 3 (Figure 4.3). In all systems, more than 80% of staff report that their training to work with children included a practical training component, indicating that practical experience is a common feature of preparation for working with children, even in systems where formal qualification levels are comparatively lower. Practical training is reported by more staff in home-based and publicly managed settings in Israel and in publicly managed settings in Germany (Tables C.4.5 and C.4.6).

Figure 4.3. ECEC staff's educational attainment and content of their initial training

Percentage of staff in each level of highest educational attainment and whether staff received training specifically to work with children, based on staff reports



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: Respondents in the "ISCED level 3 or below" group are those whose highest level of education is secondary schooling or below. Respondents in the "ISCED level 4 or 5" group are those whose highest level of education is beyond secondary schooling but less than a bachelor's degree (or equivalent), including post-secondary non-tertiary education (generally vocationally oriented) and short-cycle tertiary education. Respondents in the "ISCED level 6 or above" group are those whose highest level of education is at the level of a bachelor's degree or equivalent or higher.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in ascending order according to the percentage of staff with ISCED level 3 or below educational attainment.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Tables D.2.5 and D.2.6.

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Initial training and ongoing professional development more often emphasise children's social and emotional development than other early learning areas

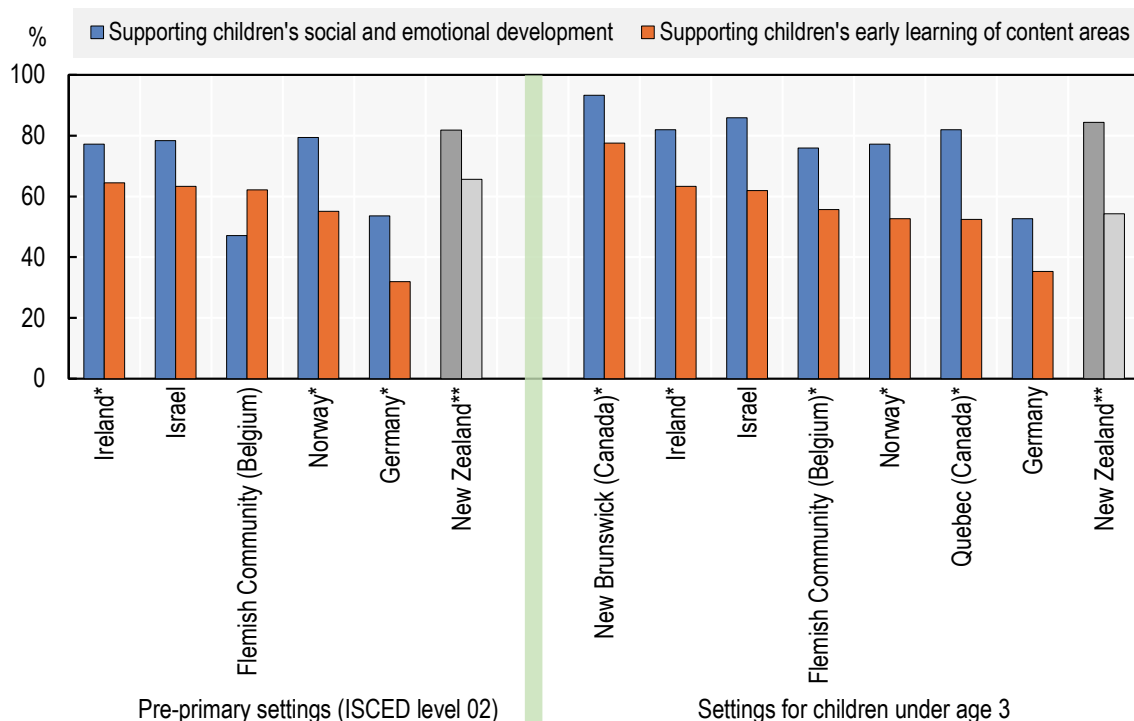
Across all systems, around or more than 90% of staff working with children under age 3 report that their initial training covered supporting children's social and emotional development (Table C.4.8). By contrast, fewer than 80% of staff report coverage of early learning content areas (e.g. language, numeracy, science or arts) in the Flemish Community of Belgium and Israel (Table C.4.9). In Israel, staff in home-based settings more often report that both areas were included in their initial training (around or above 90%), pointing to potential differences in professional capacity and pedagogical preparation across setting types (Tables C.4.8 and C.4.9).

Ongoing professional development also gives higher priority to social and emotional support for children's development relative to early learning of content areas. Across almost all participating systems for settings under age 3, participation in professional development related to children's social and emotional development exceeds participation in training focused on early learning of content areas (Figure 4.4). This

pattern is also observed at the pre-primary level, with the exception of the Flemish Community of Belgium. This emphasis points to comparatively less attention given to early learning content, which may lead to a stronger focus on social and emotional support in practice, with less emphasis on pedagogical practices targeting areas such as literacy and numeracy (see Chapter 3).

Figure 4.4. Areas covered by professional development in the 12 months prior to the survey

Percentage of staff who report each content area in supporting child development and learning was covered in recent professional development activities



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the percentage of staff who participated in professional development activities on supporting children's early learning of content areas in the 12 months prior to the survey.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Table Staff.16.

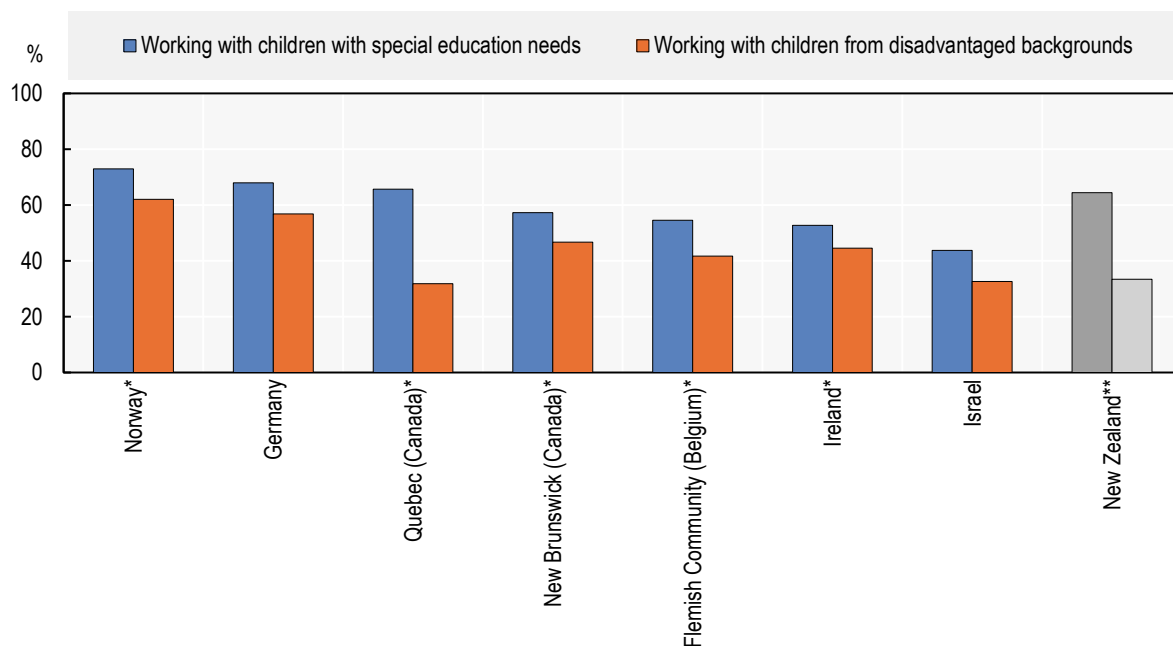
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Staff in home-based settings in some systems receive more training in supporting children's social and emotional development and early learning content than staff in centre-based settings (Table C.4.10). In the Flemish Community of Belgium, staff in home-based settings more frequently report participation in training related to early learning and social and emotional development than staff in centre-based settings. In Israel, a similar pattern is observed for professional development focused on supporting children's social and emotional development. These differences are particularly relevant given the role of professional learning in strengthening pedagogical practice, especially in home-based settings, where staff often work with greater autonomy and fewer on-site staff (Eckhardt and Egert, 2020^[8]).

In some systems, participation in professional development to support child development is more prevalent in settings serving higher shares of children from socio-economically disadvantaged backgrounds. In Israel and Norway, staff in these settings more frequently report recent participation in training related to children's social and emotional development (Table C.4.11). This is a positive finding, as children from socio-economically disadvantaged homes may benefit from more targeted socio-emotional support (see Chapter 3) (Nystad et al., 2024^[11]). However, no differences are observed in participation in professional development related to early learning of content areas for staff working with higher shares of vulnerable children (Table C.4.11). This suggests that staff in these settings may not be receiving the additional training needed to support early learning and mitigate inequalities in these areas of development.

Figure 4.5. ECEC staff professional development needs for supporting vulnerable children

Percentage of staff in settings for children under age 3 who report a “high” or “moderate” level of need for professional development in the following areas



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the percentage of staff who reported “moderate” or “high” level of need in professional development activities on working with children with special education needs.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Table Staff.19.

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Needs for targeted professional development to support vulnerable children are high, an area little covered in recent training

In addition to training in core development areas, targeted professional development is a key mechanism for supporting staff working with vulnerable children. Data from TALIS Starting Strong 2024 indicate a

possible mismatch between professional development needs and training participation across participating systems. In most systems, at least 40% of staff working with children under age 3 report a need for training to work with children with special education needs and children from disadvantaged backgrounds (Figure 4.5). Yet participation in such training is limited in all contexts (see Table Staff.16 in OECD (2025^[3])). Similar gaps are observed for training related to supporting children with diverse language backgrounds. In contrast, training needs related to working with parents or guardians are comparatively lower and more closely aligned with participation in training.

Professional development needs are higher in some types of settings (Table 4.1). In the Flemish Community of Belgium, staff in publicly managed settings more frequently report needs related to working with parents or guardians while staff in privately managed not-for-profit settings more often report needs related to supporting children from disadvantaged backgrounds. In New Zealand**, a higher share of staff in for-profit settings report a need for training to support children from disadvantaged backgrounds. In Israel, staff in centre-based settings more frequently report needs related to working with parents or guardians than staff in home-based settings. In Germany, staff in integrated settings more frequently report a need for training related to supporting children with special education needs and with children from disadvantaged backgrounds. In some systems, higher reported needs align with higher participation in recent training across provision types. For example, in the Flemish Community of Belgium, staff in centre-based settings report higher needs and higher participation in training related to supporting children from diverse language backgrounds (Tables 4.1 and C.4.10).

Professional development needs are also high in settings serving higher shares of vulnerable children (Table 4.1). In Germany, staff in settings serving more children from socio-economically disadvantaged homes report greater training needs in this area. Similar patterns are observed in New Brunswick and Quebec (Canada) for training related to supporting children from diverse language backgrounds. In Quebec (Canada), this need is more frequently reported in settings serving higher shares of children with special education needs while in New Brunswick (Canada) it is more common in settings serving higher shares of children from socio-economically disadvantaged homes, which may reflect the intersecting vulnerabilities of the children that staff work with.

Table 4.1. ECEC staff professional development needs for supporting vulnerable children by setting characteristics

Differences in the percentage of staff in settings for children under age 3 reporting a “high” or “moderate” level of need for professional development in the following areas, between different types of settings

	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Centre-based settings (reference category: home-based settings)	Non-integrated settings (reference category: integrated settings)	Settings with 10% or more of children with special education needs (reference category: settings with less than 10% of children)	Settings with 10% or more of children from socio-economically disadvantaged homes (reference category: settings with less than 10% of children)
Working with children whose home language(s) is/are different from the main language(s) used in the ECEC setting		Quebec (Canada)*	Flemish Community (Belgium)*		Quebec (Canada)*	New Brunswick (Canada)*
Working with children with special education needs				Germany	New Brunswick (Canada)*	
Working with children from disadvantaged backgrounds (e.g. economically disadvantaged, refugee)		Flemish Community (Belgium)*	New Zealand** (+)	Germany		Germany
Working with parents or guardians/families	Flemish Community (Belgium)*		Israel			

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: In Ireland, Quebec (Canada) and New Zealand**, according to official sources, all ECEC settings are privately managed.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.4.12, C.4.13, C.4.14, C.4.15 and C.4.16.

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Strengthening setting resources to provide high-quality services for all children

While workforce preparedness shapes staff practices, the availability and adequacy of setting resources determine the conditions under which these practices can be implemented. Environmental conditions such as high noise levels or poor air quality can adversely affect children’s well-being and limit opportunities for sustained interaction (Zhang et al., 2021^[12]; Werner et al., 2015^[13]). By contrast, well-designed environments that provide open indoor spaces and access to outdoor areas can facilitate free play and reduce sedentary time, supporting young children’s development (Tonge, Jones and Okely, 2016^[14]; Zhang et al., 2020^[15]; Sando, 2019^[16]). The availability of age-appropriate learning materials, such as picture books or building blocks, further supports high-quality interactions that promote early language and cognitive development (Røe-Indregård et al., 2022^[17]). These conditions may vary across provision types. Centre-based settings, often purpose-built, may offer more dedicated space and equipment whereas home-based settings operate in domestic environments that may involve more limited space but lower levels of noise or crowding (Sluiter, Fekkes and Fekkink, 2023^[18]; Werner et al., 2015^[13]). Resource levels may also differ by management type, depending on regulatory requirements and the level and stability of funding (Slot, 2018^[19]).

Alongside material conditions, the availability of human resources aligned with setting needs is critical for quality provision. Staff shortages or frequent absences reduce the time and attention staff can dedicate to

individual children, while access to specialised staff strengthens capacity to support children from diverse backgrounds or with special education needs (Asp et al., 2024^[20]; Kwon et al., 2020^[21]). The availability and adequacy of these resources vary across and within systems by management arrangements, provision type and other setting characteristics (Leseman and Slot, 2025^[4]). Settings operating with limited funding may face greater challenges in maintaining support staff, substitute staff or specialised competences. Evidence suggests that these constraints can disproportionately affect settings serving higher shares of vulnerable children, compounding existing inequalities in the quality of provision (OECD, 2025^[10]; González-Sancho et al., 2023^[5]).

This section draws on data from the TALIS Starting Strong 2024 survey to examine how physical, material and human resources vary across and within ECEC systems serving children under age 3.

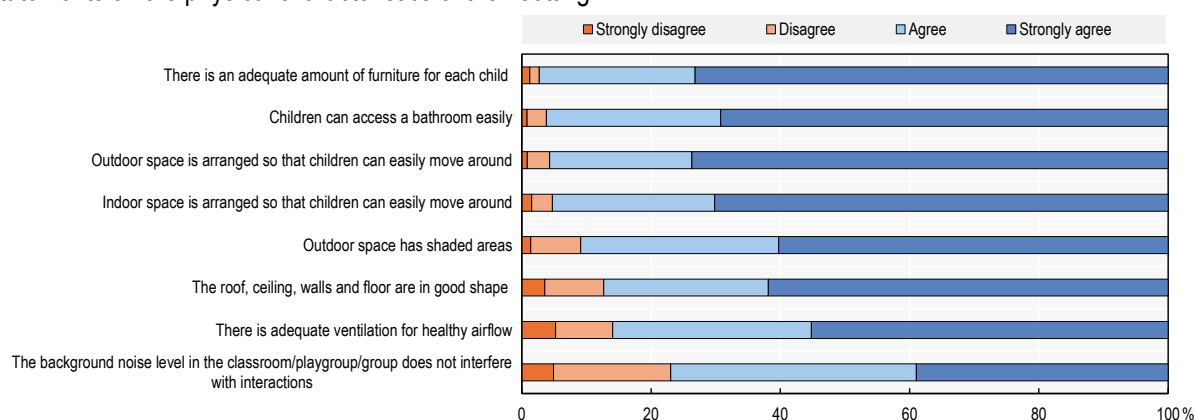
While most settings have adequate infrastructure, constraints related to ventilation and noise can be a concern in some contexts

Across most participating systems, leaders report generally adequate physical environments in settings serving children under age 3 (Figure 4.6). In many contexts, more than 90% of leaders indicate that their settings have sufficient furniture, adequate indoor and outdoor space, and easy access to bathrooms, suggesting that infrastructure standards are widely met. However, some aspects of the physical environment are reported less consistently. In Germany and Norway, around 70% of leaders report adequate ventilation, and fewer than 70% report that background noise does not interfere with interactions (see Table D.3.7 in OECD (2025^[3])).

Differences also emerge by management type and setting structure. In Ireland, privately managed not-for-profit settings are more likely to report adequate ventilation than privately managed for-profit settings (Table C.4.17). In Germany, variation is more strongly linked to setting organisation, with integrated settings more often reporting noise-related challenges and other building constraints than non-integrated settings (Table C.4.18).

Figure 4.6. Physical characteristics of ECEC settings

Average percentage of leaders in settings for children under age 3 reporting how much they agree with the following statements on the physical characteristics of their setting



Notes: Averages for settings serving children under age 3 exclude New Zealand**.

ECEC: early childhood education and care.

Statements are ranked in descending order of the average percentage of leaders who responded agree or strongly agree.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Table D.3.7.

StatLink  <https://stat.link/4jhs7f>

Physical and material constraints are less frequently reported as barriers to quality; however, they are more likely to affect settings serving higher shares of vulnerable children

Aligned with leaders generally reporting adequate physical environments, across participating systems, relatively few leaders identify constraints related to physical space or infrastructure as barriers to quality in settings serving children under age 3 (see Table Leader.42 in OECD (2025^[3])). In all systems, around 20% or fewer leaders report shortages or inadequacies in indoor or outdoor space as hindering quality. Reports of inadequate access to basic utilities, such as drinking water, electricity or sanitation, are even less common, affecting around 10% or fewer settings in most systems. However, these constraints are more concentrated in specific types of settings. In Israel, shortages of indoor and outdoor space are more frequently reported as barriers to quality in home-based and small-scale settings (Tables C.4.19 and C.4.20), while in Ireland challenges related to basic utilities are more commonly reported in privately managed not-for-profit settings (Table C.4.21).

Constraints related to learning materials are also rarely reported overall, although these challenges are more prevalent in some settings. In Israel, shortages of play and learning materials are more commonly reported as barriers to quality, especially in publicly managed settings rather than in privately managed ones (Table C.4.21). In Ireland, they are also more commonly reported in privately managed not-for-profit settings than in for-profit provision. These constraints are also more frequently reported in large-scale settings in comparison to small-scale provision in Ireland and Norway, whereas in Israel they are more common in small-scale settings, and in home-based settings in comparison to centre-based provision (Tables C.4.19 and C.4.20).

In the Flemish Community of Belgium and Israel, settings for children under age 3 reporting higher levels of structural resource constraints also serve higher proportions of children from socio-economically disadvantaged homes (Table 4.2). A similar and more pronounced pattern is observed at the pre-primary level in the Flemish Community of Belgium, Germany, Ireland and Israel, indicating that as more vulnerable children access ECEC at the pre-primary level, they are more likely to attend settings facing greater structural resource constraints.

Table 4.2. Inadequate physical resources as barriers to structural quality in ECEC settings attended by vulnerable children

Differences in leader reports of inadequacy of physical resources as barriers to structural quality, between settings enrolling 10% or more compared to less than 10% of children with special education needs or from socio-economically disadvantaged homes

+	More common in settings with higher shares of vulnerable children
-	Less common in settings with higher shares of vulnerable children
	Difference is not statistically significant
	Missing values

	Special education needs	Socio-economically disadvantaged
Pre-primary settings (ISCED level 02)		
Flemish Community (Belgium)		+
Germany*		+
Ireland*		+
Israel		+
Norway*		
New Zealand**		
Settings for children under age 3		
Flemish Community (Belgium)*		+
Germany		
Ireland*		
Israel		+
New Brunswick (Canada)*		
Norway*		
Quebec (Canada)*		
New Zealand**		

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: A scale of "barriers to structural quality: Adequacy of physical resources" (S2LSQPRS) was constructed using leaders' responses ("not at all", "to some extent", "quite a bit", "a lot") when indicating the extent to which different factors hinder an ECEC setting's ability to provide a quality environment for children. These factors include "shortage or inadequacy of play or learning materials (e.g. picture books, building blocks, paint)"; "shortage or inadequacy of indoor space"; "shortage or inadequacy of outdoor play space"; "shortage or inadequacy of digital resources and tools".

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.4.22.

StatLink  <https://stat.link/qcb9mh>

The number of staff per child varies within systems and is not consistently aligned with the needs of settings serving higher shares of vulnerable children

The availability of staff is an important aspect of setting resources as it shapes the extent to which staff can engage in individualised and responsive interactions. Across systems, however, staff availability per ten children varies by setting characteristics (Table C.4.23). In the Flemish Community of Belgium and Ireland, privately managed not-for-profit settings report more staff per ten children than other types of providers, whereas in Israel, for-profit settings report comparatively higher staff availability than not-for-profit settings. In addition, in the Flemish Community of Belgium, Germany, Ireland, New Zealand** and Norway, small settings consistently report more staff per ten children than larger ones.

Beyond overall ratios, the adequacy of staff numbers depends on how well it reflects children's needs. Younger children typically require more intensive supervision and interaction, and additional staff can support more tailored responses to children with special education needs or those from socio-economically disadvantaged homes. In Germany, staff allocation appears responsive to age-related needs (Table C.4.23). Settings that are not integrated and primarily serve children under age 3 report higher staff availability than integrated settings, consistent with the greater demands of younger children. However, across most systems, staff availability does not vary according to the concentration of vulnerable children within the setting. Ireland is an exception, where settings serving higher shares (above 10%) of children with special education needs or from socio-economically disadvantaged homes report higher staff availability. This suggests an alignment between staffing resources and children's needs in this context, supported by the funding models to improve staffing resources in settings serving a higher share of vulnerable children (see Box 4.1).

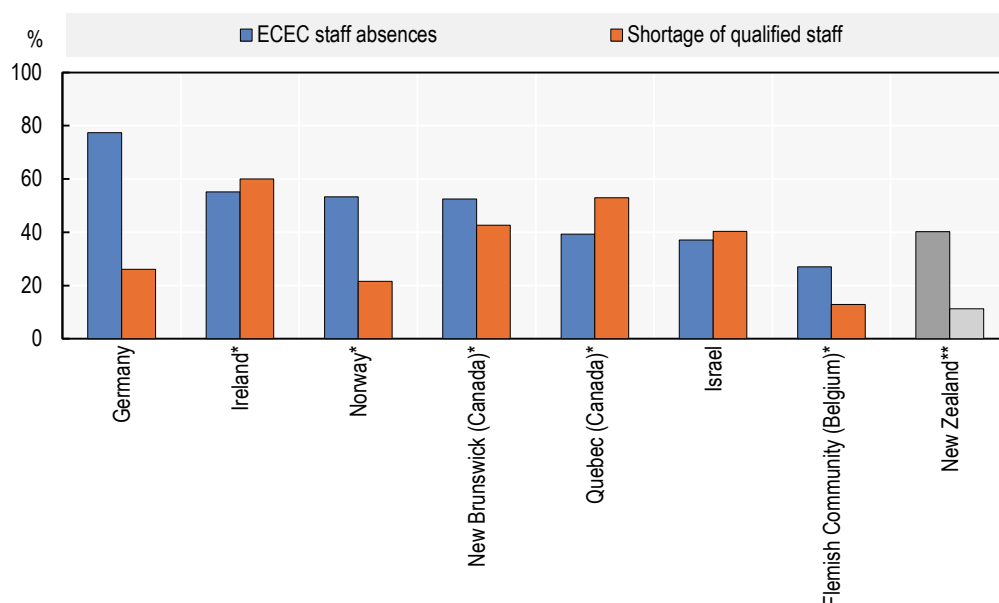
Staff absences are the most frequently reported barriers to quality provision, while shortages of specialised staff for vulnerable children also pose a challenge

Across participating systems, staffing-related challenges in settings serving children under age 3 are more frequently identified as barriers to quality provision than physical or material constraints (see Table Leader.42 in OECD (2025_[3])). Among these, staff absences emerge as the most reported barrier (Figure 4.7). In Germany, Ireland, New Brunswick (Canada) and Norway, more than half of leaders report that staff absences hinder their setting's capacity to provide a quality environment for young children. In Germany and Norway, shortages of staff relative to enrolment are also reported by more than half of leaders. By contrast, such challenges are much less frequently reported in systems such as the Flemish Community of Belgium, where around or less than 10% of leaders report that staff absences or staff relative to enrolment affect the quality of ECEC provided.

Beyond overall staffing levels, shortages of qualified staff are also widely reported particularly in the two Canadian provinces, Ireland and Israel, where more than 40% of leaders identify shortages of qualified staff as a challenge (Figure 4.7). Shortages of staff with specific competences are also common. In Ireland and Quebec (Canada), more than 30% of leaders report shortages of staff with competences to support children from socio-economically disadvantaged homes, while similar shares are reported in the two Canadian provinces, Germany, Ireland and Norway for shortages related to supporting children with special education needs (see Table Leader.42 in OECD (2025_[3])). In addition, more than 30% of leaders in Ireland and Norway report limited opportunities to support staff's professional development, suggesting constraints not only in staffing levels but also in workforce development. Such challenges are particularly lower in the Flemish Community of Belgium, reported by less than 10% of leaders across the system.

Figure 4.7. ECEC staff absences and shortages as barriers to quality provision in settings for children under age 3

Percentage of ECEC settings for children under age 3 whose leaders reported “quite a bit” or “a lot” that the following issues hinder their ECEC setting’s capacity to provide a quality environment for children’s development, well-being and learning



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order according to the percentage of ECEC settings whose leaders reported that ECEC staff absences hinder their setting’s capacity to provide a quality environment for children’s development, well-being and learning.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Table D.8.1.

StatLink  <https://stat.link/mxu69z>

Staffing pressures are unevenly distributed across settings, particularly affecting publicly managed and large-scale settings

Staffing pressures are not evenly distributed across ECEC provision and tend to be more frequently reported in specific types of settings as barriers to quality (Table 4.3). In Norway, leaders in publicly managed settings more frequently report staff absences, shortages of qualified staff or staff relative to the number of enrolled children, as well as staff with competences to support children with special education needs and limited professional development opportunities as barriers to quality (Table C.4.21). Similarly, in Israel, publicly managed settings more often report shortages of staff with competences to support children from socio-economically disadvantaged homes. In New Brunswick (Canada), publicly managed settings more frequently report shortages of staff relative to enrolment, whereas privately managed settings report greater shortages of staff with competences to support children from diverse language backgrounds. Variations are also apparent by profit status in some systems. In Ireland, shortages of staff with competences to support children from socio-economically disadvantaged homes are more commonly reported in for-profit settings than in not-for-profit ones.

Table 4.3. ECEC staff absences and shortages across settings as barriers to quality

Differences in the percentage of ECEC settings for children under age 3 whose leaders report “quite a bit” or “a lot” that ECEC staff absences or shortages hinder their setting’s capacity to provide a quality environment for children’s development, well-being and learning, between different types of settings and different management types

ECEC staff absences		Shortage of ECEC staff with competence in working with children from socio-economically disadvantaged homes		Shortage of ECEC staff with competence in working with children with special education needs		Shortage of staff for the number of enrolled children	
Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)
Flemish Community (Belgium)*							
Germany							
Ireland*			+				
Israel		-					
New Brunswick (Canada)*						-	
Norway*	-			-		-	
Quebec (Canada)*	-						
New Zealand**							

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: In Ireland, Quebec (Canada) and New Zealand **, according to official sources, all ECEC settings are privately managed.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.4.21.

StatLink  <https://stat.link/9e1fwj>

Differences also emerge by setting size and organisation. Across systems, large-scale or integrated settings tend to report workforce-related challenges more frequently (Tables C.4.20 and C.4.24). This pattern is consistent with lower staff number per child in these settings, suggesting that larger and more organisationally complex settings may face greater challenges in maintaining adequate staffing capacity to respond to children's needs.

Staff shortages more often challenge the quality of provision in settings serving higher shares of vulnerable children

In some systems, staffing shortages are more frequently reported as barriers to quality in settings serving higher shares of vulnerable children, suggesting a misalignment between resources and needs. In Germany, settings serving higher shares of children with special education needs more often report shortages of staff to support children from diverse language backgrounds as barriers to quality (Table C.4.25). In Israel, settings serving higher shares of children from socio-economically disadvantaged homes more frequently report shortages of specialised staff as a barrier to quality, including staff trained to work with these children as well as with children with special education needs (Table C.4.26). In New Brunswick (Canada), such settings also more often report shortages of staff to support children from diverse language backgrounds as a barrier to quality.

In other systems, however, settings serving higher shares of vulnerable children are less likely to report staff shortages as a barrier to quality, pointing to a more aligned distribution of resources. In Quebec (Canada), for example, settings serving higher shares of children with special education needs less frequently report shortages of staff relative to the number of enrolled children as a barrier to quality provision (Table C.4.25). Similarly, in Norway, settings serving higher shares of children from socio-economically disadvantaged homes are less likely to report shortages of staff to work with these children as a barrier to quality (Table C.4.26).

Promoting workforce well-being to retain staff and sustain quality

Working conditions in ECEC settings are closely linked to staff well-being, retention and the sustainability of quality provision (Heilala et al., 2023^[22]). Work environments that offer adequate wages and benefits can support staff satisfaction and contribute to workforce stability (Hur et al., 2022^[23]). On the other hand, staff shortages and absences can intensify workloads that are already demanding in settings characterised by intensive caregiving responsibilities, particularly where higher shares of vulnerable children are enrolled (Kwon et al., 2020^[21]). Working hours constitute an important dimension of staff well-being, as longer working days may increase strain, particularly in settings where staff work alone or have limited access to supporting staff. Such pressures can translate into stress and may increase staff considerations of leaving the sector (OECD, 2025^[3]). High turnover, in turn, has important implications for children's experiences. For very young children, stable relationships with caregivers in ECEC settings are closely linked to their well-being and development, and high levels of turnover can undermine this stability (Bratsch-Hines et al., 2020^[24]; Choi et al., 2018^[25]).

This section draws on data from the TALIS Starting Strong 2024 survey to examine how working conditions relate to staff well-being and turnover intentions in settings serving children under age 3. It explores differences across types of provision and management arrangements and examines how the experiences of the workforce intersect with the characteristics of the children served.

Permanent employment is more common in centre-based settings while home-based settings show greater contractual variation

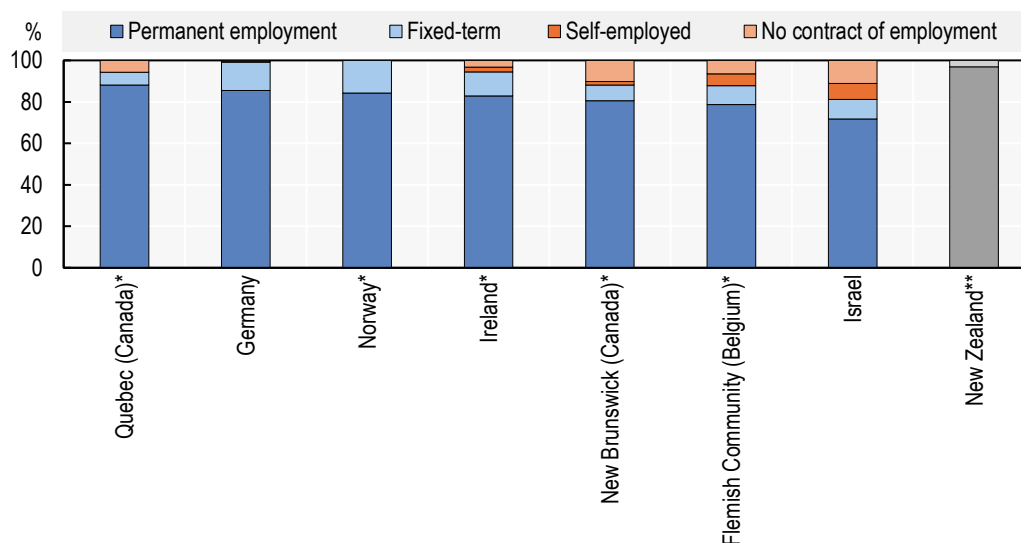
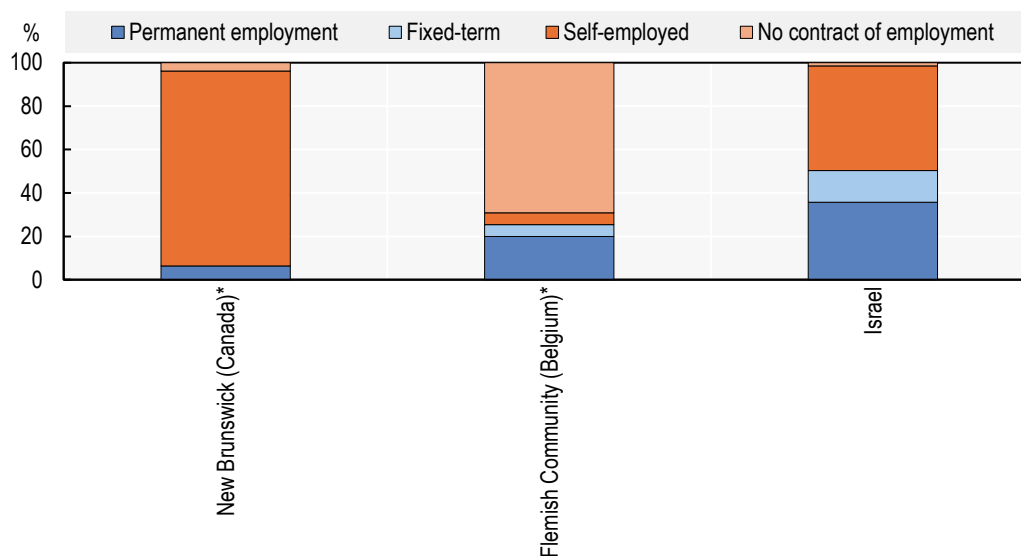
Across participating systems, most staff working with children under age 3 report being in permanent employment, although the prevalence of permanent contracts varies substantially. Less than 70% staff in the Flemish Community of Belgium and Israel report having permanent contracts as a result of variations in the contract types used in these systems, whereas in New Zealand**, more than 90% report having permanent employment (see Table D.2.13 in OECD (2025^[3])).

Staff in centre-based settings more frequently report permanent employment than those in home-based settings (Figure 4.8), including in the Flemish Community of Belgium, Israel and New Brunswick (Canada) (Table C.4.27). Other arrangements are more common in home-based provision. In Israel and New Brunswick (Canada), larger shares of staff in home-based settings report being self-employed. In the Flemish Community of Belgium, a majority of staff in home-based settings (around 70%) report having no employment contract, which also includes specific types of employment arrangements with more flexibility that are often used by staff in home-based settings.

Contractual status also varies by management and profit status (Table C.4.28). In Israel, publicly managed settings report higher shares of permanent contracts than privately managed settings, while self-employment is more common in privately managed provision. Differences are also evident within the private sector. In Ireland, self-employment is more prevalent in for-profit provision than in not-for-profit settings. By contrast, fixed-term or temporary employment are more common in privately managed not-for-profit settings than in for-profit settings.

Figure 4.8. ECEC staff contractual status by provision type

Percentage of staff in settings for children under age 3 with different types of contracts, based on staff reports

Panel A: Centre-based settings**Panel B: Home-based settings**

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: In the Flemish Community of Belgium, the category "no contract of employment" includes staff in home-based settings who work under a specific "*sui generis*" status.

ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order according to the percentage of staff with a permanent contract.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.4.27.

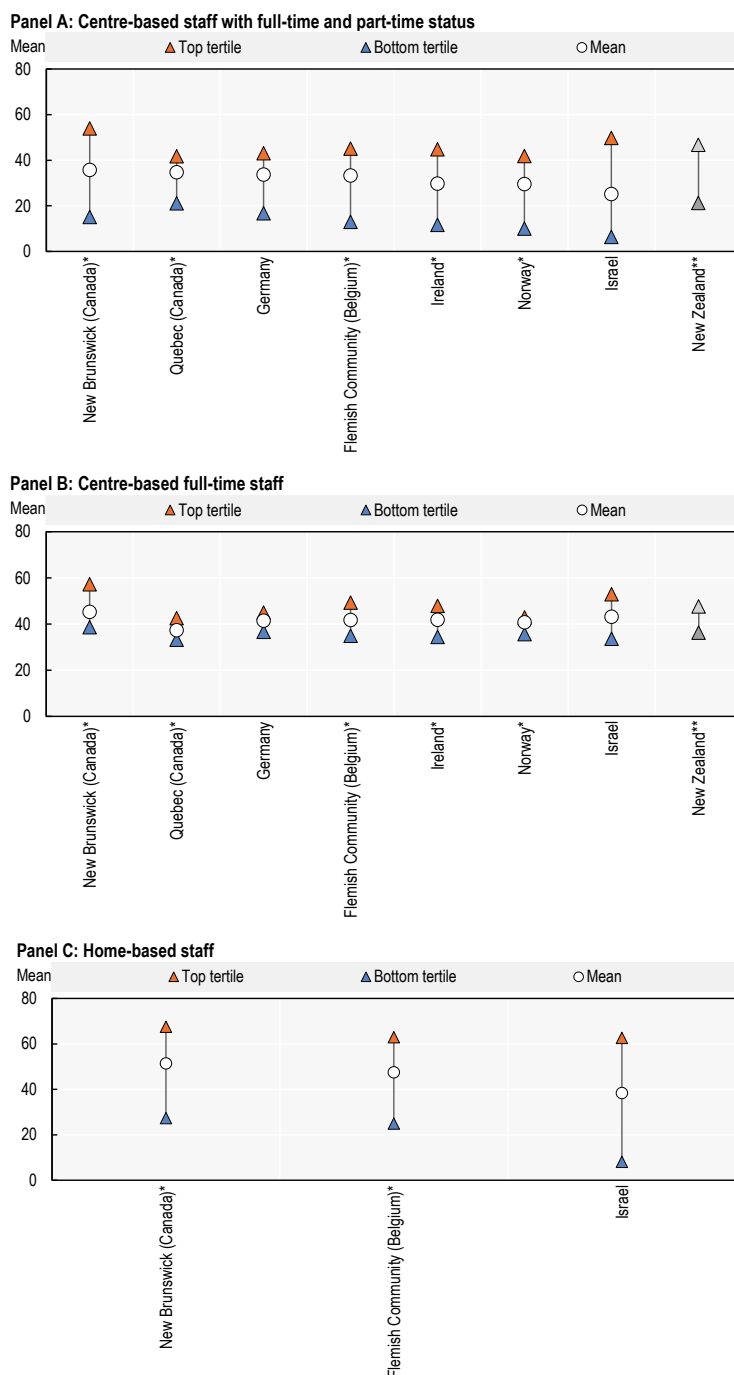
Staff in home-based settings tend to work longer hours than staff in centre-based settings

Across participating systems serving children under age 3, staff (including those working full-time and part-time) on average report working around 30 or more hours in most systems in centre-based settings (Table C.4.29).

Within systems, a consistent pattern emerges whereby staff in home-based settings report longer working hours than those in centre-based provision (Figure 4.9). While staff working full-time in centre-based settings report relatively high average working hours, generally at or above 37 hours per week, these remain close to but typically below the levels reported by staff in home-based settings. Gaps between the working hours of staff in home-based and centre-based settings tend to widen among staff with the longest working hours, pointing to substantially higher workload demands in home-based provision (Table C.4.30). In the top tertile, staff report working more than 60 hours per week in home-based settings in the Flemish Community of Belgium, Israel and New Brunswick (Canada), compared to around 40-50 hours in centre-based settings (Figure 4.9). These patterns likely reflect structural differences in work organisation, with fewer opportunities to share tasks and responsibilities in home-based settings compared to centre-based provision.

Figure 4.9. ECEC staff working hours by type of provision and employment arrangement

Total number of hours staff spent in settings for children under age 3 on tasks related to their job during the most recent complete calendar week



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the average working hours of all centre-based staff.

Source: OECD (2025), TALIS Starting Strong 2024 Database, Tables C.4.29 and C.4.30.

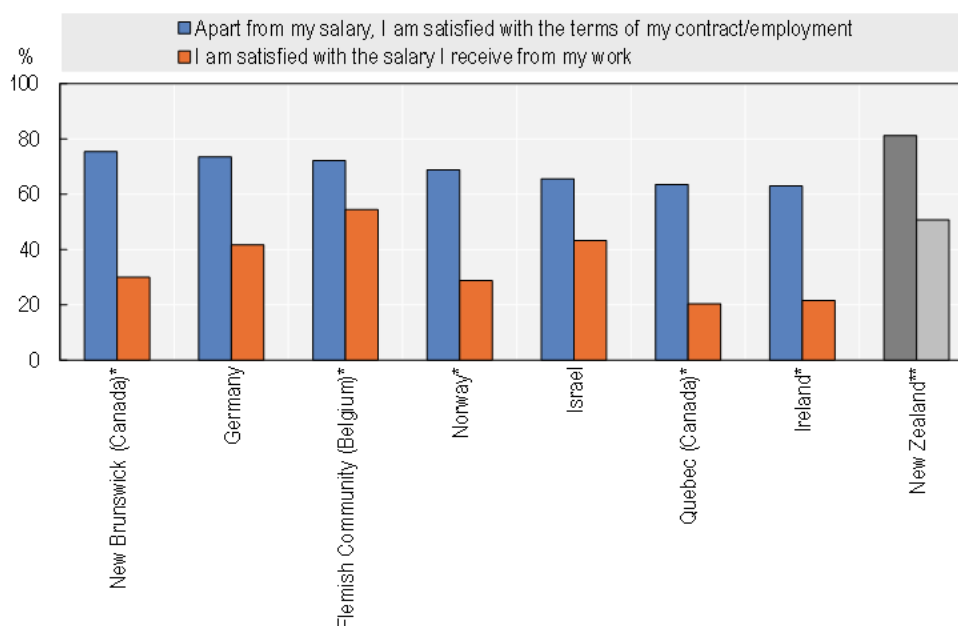
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Staff satisfaction with salary is low but high with other employment terms

Across participating systems, staff working with children under age 3 are satisfied with the terms of their contract or employment, but to a lesser extent with their salaries (Figure 4.10). This gap is evident across all systems.

Figure 4.10. ECEC staff satisfaction with their terms of employment and salary

Percentage of staff in settings for children under age 3 who “agree” or “strongly agree” with the following statements



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the percentage of staff who are satisfied with their salary.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Table D.8.2.

StatLink  <https://stat.link/8oawy4>

Within systems, satisfaction with their terms of employment and salary sometimes aligns with differences in contractual arrangements by provision type. In the Flemish Community of Belgium and Israel, staff working in centre-based settings more frequently report being satisfied with the terms of their contract or employment than those working in home-based settings, in line with the shorter working hours (Table C.4.31 and Figure 4.9). In Israel and New Brunswick (Canada), staff working in home-based settings, where most are self-employed, are more likely to report being satisfied with their salaries than those in centre-based provision (Tables C.4.27 and Table 4.4).

Staff satisfaction with other aspects of their job is generally high, while staff in home-based settings are more often satisfied with their jobs in some systems. In the Flemish Community of Belgium and New Brunswick (Canada), staff in home-based settings more frequently report enjoying their work and in the Flemish Community of Belgium they also report higher satisfaction with their level of autonomy, suggesting that greater control over practice may lead to more satisfaction with the important aspects of

the job (Table C.4.31). These dimensions of job satisfaction may support staff retention and help buffer the effects of job demands in home-based settings that involve long working hours (OECD, 2025^[3]).

Differences in satisfaction with salary and other contractual terms are also observed across management arrangements (Table 4.4). In Israel, staff working in privately managed settings are less likely to hold permanent contracts than those in publicly managed provision, yet they more frequently report satisfaction with their salary and the terms of their contract (Tables C.4.28 and C.4.32). This pattern is particularly pronounced in privately managed for-profit settings, where higher shares of staff also report being satisfied with their salaries and enjoying their work compared to privately managed not-for-profit settings (Table C.4.32). Similar patterns are observed in Ireland, where staff in privately managed for-profit settings more often report being satisfied with their salaries than those working in not-for-profit provision. This finding is important in systems where vulnerable children are more likely to attend publicly managed settings (for Israel) or not-for-profit ones (in Ireland) and indicates that privately managed, particularly for-profit, settings may have greater leverage in attracting and retaining high-quality staff through more favourable employment benefits in some contexts.

Table 4.4. ECEC staff satisfaction with salary across setting types

Differences in the percentage of staff in settings for children under age 3 who “agree” or “strongly agree” with being satisfied with the salary they receive, between different types of settings

+	Satisfaction with salary is significantly higher in:
-	Satisfaction with salary is significantly lower in:
	Satisfaction with salary is similar in:
	Missing values

	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Centre-based settings (reference category: home- based settings)	Non-integrated settings (reference category: integrated settings)
Flemish Community (Belgium)*				
Germany				
Ireland*		+		
Israel	+	+	-	
New Brunswick (Canada)*			-	
Norway*				
Quebec (Canada)*				
New Zealand**				

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: In Ireland, Quebec (Canada) and New Zealand **, according to official sources, all ECEC settings are privately managed.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.4.31, C.4.32, and C.4.33.

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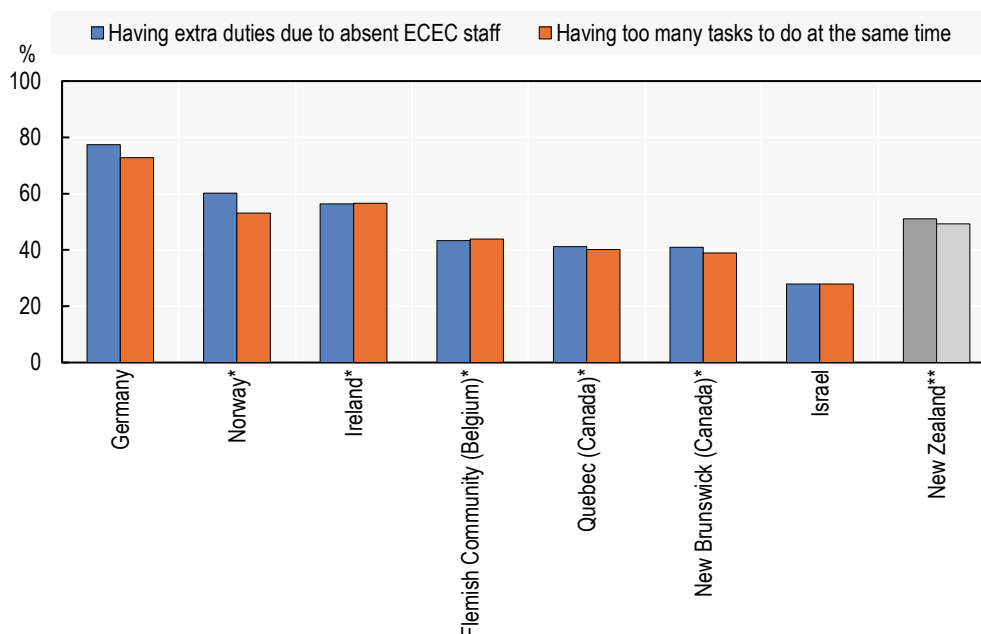
Workload linked to staffing constraints is a main source of stress across setting types

Across participating systems, workload pressures linked to limited staffing capacity emerge as central sources of stress for staff working with children under age 3. In most systems, having extra duties due to absent ECEC staff and having too many tasks to do at the same time are among the main stressors

(Figure 4.11). In Germany, Ireland, New Zealand** and Norway, more than half of staff working with children under age 3 report stress related to having extra duties due to absent staff. In these same systems, stress related to having too many tasks to do at the same time is also reported by around or more than half of staff, suggesting that staff absences are closely associated with heavier workloads for remaining staff.

Figure 4.11. Sources of stress for ECEC staff

Percentage of staff in settings for children under age 3 who report that the following is “quite a bit” or “a lot” a source of stress



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the percentage of staff who report that having extra duties due to absent ECEC staff is “quite a bit” or “a lot” a source of stress.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Table D.8.12.

StatLink  <https://stat.link/tv0i32>

Work-related stress varies across management types and profit status and provision, reflecting differences in staffing models and organisational support that staff receive in different contexts (Table 4.5). In Israel, staff in privately managed not-for-profit settings more frequently report having extra duties due to absent staff, having too many tasks to do at the same time and administrative work as sources of stress, while having extra duties due to absent staff is also more common in publicly managed settings (Table C.4.34). In the Flemish Community of Belgium and Israel, staff working in centre-based settings more often report having too many tasks to do at the same time than staff in home-based settings (Table C.4.35). In Israel, staff in centre-based settings also more frequently report administrative work and addressing parents’ or guardians’ concerns as sources of stress. These findings also align with lower levels of satisfaction with salaries reported by staff in centre-based, publicly managed and privately managed not-for-profit settings in Israel, pointing to a potential imbalance between workload intensity and perceived financial rewards (Figure 4.10, C.4.31 and C.4.32). By contrast, in New Brunswick (Canada), staff in home-based settings,

where pedagogical and leadership roles are often combined within a single position, more frequently report administrative work and documenting children's development as sources of stress (Table C.4.35).

In Germany, staff in integrated settings more frequently report stress than those in settings serving only children under age 3, especially in relation to having extra duties due to absent staff, having too many tasks to do at the same time, having too much administrative work and work related to documenting children's development (Table C.4.36). These patterns point to the higher staff shortages in these settings and the possible additional co-ordination and reporting requirements associated with managing provision across multiple age groups within a single organisational structure.

Table 4.5. ECEC staff reports of multitasking as a source of stress across setting types

Differences in the percentage of staff in settings for children under age 3 reporting having too many tasks to do at the same time as a source of stress, between different types of settings

+	Multitasking as a source of stress is significantly more common in:
-	Multitasking as a source of stress is significantly less common in:
	Multitasking as a source of stress is similarly common in:
	Missing values

	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Centre-based settings (reference category: home-based settings)	Non-integrated settings (reference category: integrated settings)
Flemish Community (Belgium)*			+	
Germany				-
Ireland*				
Israel		-	+	
New Brunswick (Canada)*				
Norway*				
Quebec (Canada)*				
New Zealand**				

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: ECEC settings in Ireland, Quebec (Canada) and New Zealand** are technically all privately managed.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.4.34, C.4.35 and C.4.36.

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Intentions to leave the profession reflect family responsibilities and system-level pressures and are stronger in high stress contexts

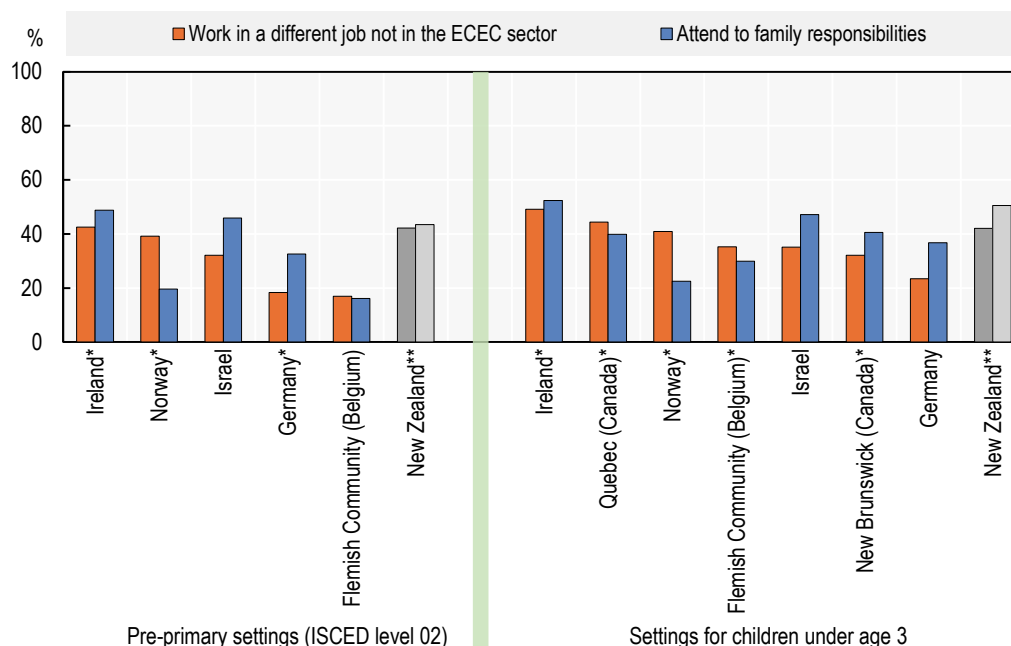
Intentions to leave the profession are substantial in settings serving children under age 3. In Ireland, New Zealand**, Norway, and Quebec (Canada), more than 40% of staff in settings serving children under age 3 report that working in a different job outside the ECEC sector is likely to lead them to leave their role within the next five years (Figure 4.12). In most systems, these shares are higher than those observed in pre-primary settings, indicating particularly strong risks of turnover in settings for children under age 3.

Family responsibilities are also an important factor. More than half of staff in Ireland and New Zealand** working with children under age 3 report that attending to family responsibilities is a likely reason to leave, and close to half do so in Israel, again exceeding or matching levels reported in pre-primary education

(Figure 4.12). Health-related factors are similarly prominent. More than 30% of staff in the Flemish Community of Belgium, Germany, Israel and Quebec (Canada) report that resolving physical health issues is a likely reason for them to leave, while mental health-related reasons are particularly salient in Ireland, where more than 40% report this as a likely reason, higher than in its pre-primary sector.

Figure 4.12. Reasons to leave the ECEC staff role

Percentage of staff who indicate the following as a “likely” or “highly likely” factor to leave the ECEC staff role in the next five years



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order according to the percentage of staff who reported that work in a different job not in the ECEC sector are “likely” or “highly likely” to cause them to leave their role as ECEC staff in the next five years.

Source: OECD (2025^[3]), TALIS Starting Strong 2024 Database, Table D.8.15.

StatLink  <https://stat.link/gxfy28>

Reasons for considering leaving the ECEC staff role often mirror work-related stress patterns in settings with different management status and provision. In Israel, staff working in privately managed not-for-profit settings more frequently report considering leaving their role, including to work outside the ECEC sector, attend to family responsibilities or resolve mental health-related issues (Table C.4.37). These patterns are consistent with the more frequent reports of stress related to workload reported in these settings (Table C.4.34). Similarly, in centre-based settings in Israel, where staff more frequently report stress, staff also more often indicate considering leaving their role to resolve physical health-related issues (Tables C.4.35 and C.4.38).

While stress is associated with considering leaving the sector, job satisfaction can buffer intentions to leave

Working in demanding environments can adversely affect staff well-being and lead to intentions to leave the ECEC sector. In settings serving children under age 3, stress and its impact on staff well-being show strong links with the likelihood of staff considering leaving their role to work in a different job outside the ECEC sector in almost all participating systems, including the Flemish Community of Belgium, Ireland, Israel, New Brunswick (Canada), New Zealand** and Norway (Table 4.6).

At the same time, several aspects of job satisfaction (measured through a scale including multiple aspects such as enjoyment of work at the setting, perceptions of the setting as a good place to work, satisfaction with the support they receive from parents) appear to mitigate intentions to leave the sector. In the two Canadian provinces, the Flemish Community of Belgium, Germany and Norway, higher overall satisfaction with work at the ECEC setting is associated with a lower likelihood of considering leaving to work outside the ECEC sector (Table 4.6). Additional dimensions of job satisfaction also play a role in specific systems. In the Flemish Community of Belgium and Germany, staff who report being satisfied with their salary are significantly less likely to consider leaving. In Norway and Quebec (Canada), satisfaction with the terms of employment is similarly associated with reduced intentions to leave the sector. These findings suggest that while stress increases the risk of turnover, strengthening job satisfaction, including through improved work conditions that provide more job resources to reduce workloads, may help buffer against intentions to leave in settings serving children under age 3, particularly in high stress contexts.

Table 4.6. Relationship between leaving the job to work in another sector and job satisfaction

Odds of staff in settings for children under age 3 considering it “likely” or “very likely” to leave the ECEC staff role to work in a different job not in the ECEC sector, associated with different aspects of job satisfaction

+	Significant positive difference
-	Significant negative difference
	Difference is not statistically significant

	Staff who agree or strongly agree with the statement "I am satisfied with the salary I receive from my work" (reference category: disagree or strongly disagree)	Staff who agree or strongly agree with "Apart from my salary, I am satisfied with the terms of my contract/employment" (reference category: disagree or strongly disagree)	Staff who agree or strongly agree with the statement "I am satisfied with the level of autonomy I have to shape my practice" (reference category: disagree or strongly disagree)	Scale of satisfaction with work at the ECEC setting	Scale of level of stress and its impact on staff well-being
Flemish Community (Belgium)*	-			-	+
Germany	-			-	
Ireland*					+
Israel					+
New Brunswick (Canada)*				-	+
Norway*		-		-	+
Quebec (Canada)*		-		-	
New Zealand**					+

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only include respondents in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: Results show the direction of associations from a single multivariable logistic regression model of the likelihood of staff to leave their role as ECEC staff in the next five years. “Work in a different job not in the ECEC sector” is associated with the list of variables indicated in the table together with additional control variables. For more information, see Annex B.

ECEC: early childhood education and care.

Source: OECD (2025^[3]), *TALIS Starting Strong 2024 Database*, Table D.8.16.

StatLink  <https://stat.link/54wn0b>

Working with a higher share of vulnerable children can increase stress related to work demands and contribute to intentions among staff to leave their role

Staff working with children under age 3 more frequently report higher levels of work-related stress in settings serving greater shares of vulnerable children. In New Brunswick (Canada), staff more frequently report administrative workload as a source of stress in settings with higher shares of children from socio-economically disadvantaged homes or with special education needs (Tables C.4.39 and C.4.40). In the Flemish Community of Belgium, addressing parents' or guardians' concerns is more often reported as a source of stress in settings serving higher proportions of children from socio-economically disadvantaged homes. In Ireland, staff in settings serving higher shares of children with special education needs more frequently report administrative workload and communication with parents as sources of stress and are also more likely to consider leaving their role to resolve physical health issues (Tables C.4.40 and C.4.41). Similarly, in Ireland and Israel, staff in settings serving higher shares of children from socio-economically disadvantaged homes more often report stress related to documentation demands (Table C.4.39). In these systems, staff are also more likely to report intentions to leave for mental health-related reasons in Ireland and Israel, and to attend to family responsibilities in Israel (Table C.4.42).

These patterns reflect that staff working in settings serving higher shares of vulnerable children face higher work demands. A question is whether the resources and rewards that ECEC staff have, such as their self-efficacy and satisfaction with salary, level of autonomy and leadership, counterbalance the demands linked to work with vulnerable children. Analyses suggest that this is the case in most systems except Norway and Quebec (Canada) for work with children with special education needs as well as for work with children from socio-economically disadvantaged homes in Quebec (Canada) (Table D.8.20 in OECD (2025^[31])). This highlights the importance of strengthening job resources through targeted funding, professional development and additional resources to help mitigate heavy workloads (Box 4.1).

Box 4.1. Targeted human and material resource support for settings serving higher shares of vulnerable children

The **Flemish Community of Belgium** operates a tiered subsidy system for childcare settings serving children under age 3, in which higher levels of public funding are linked to stronger requirements on affordability and inclusion (Opgroeien, n.d.^[26]). At lower levels, providers may set their own fees, whereas subsidised settings, particularly at higher levels, are required to apply income-related fees. At the highest tier, funding is explicitly targeted towards settings serving more vulnerable children: these settings are required to implement admissions policies prioritising disadvantaged families, align services with their needs, and contribute to building inclusive practices and expertise. These requirements are supported by system-level measures, including local childcare offices and integrated networks that help vulnerable families access services.

Ireland's Access and Inclusion Model (AIM) includes targeted supports to strengthen workforce capacity in settings serving children with additional needs, particularly through structured training and professional development (Government of Ireland, 2026^[27]). AIM provides a range of universal and targeted measures, including access to training programmes and professional development and mentoring supports designed to build staff capacity to support children with disabilities in early learning and childcare settings. These include the Leadership for Inclusion programme, a government-funded higher education qualification that prepares inclusion co-ordinators within settings to lead inclusive practices and support colleagues. In addition, AIM offers ongoing professional development resources,

practical guidance and access to early years specialists who provide on-site support to staff working with children with additional needs.

New Zealand applies an Equity Index to allocate additional funding to ECEC services serving children from more disadvantaged backgrounds (Ministry of Education, 2026^[28]). The index is derived from linked administrative data and captures multiple dimensions of disadvantage at the child level, including parental income, benefit receipt, educational attainment and housing circumstances. Based on the characteristics of enrolled children, each service is assigned an index score, which determines its level of equity funding. This approach replaces the earlier funding model on area-based proxy measures with a more granular model, enabling resources to be more accurately directed to services serving higher need populations. The additional funding is intended to support services in strengthening participation, quality and responsiveness to children facing disadvantage.

In **New Brunswick (Canada)**, settings receive public funding through a designation system, under which only approved early learning and childcare providers receive operational and infrastructure funding (New Brunswick Department of Education and Early Childhood Development, 2024^[29]). As part of the Canada-New Brunswick Canada-Wide Early Learning and Child Care Agreement, this model combines universal funding with targeted measures to improve access for underserved and vulnerable populations. Funding is prioritised towards not-for-profit providers and services located in areas of greatest need, including rural communities, low-income areas, language minority communities, newcomer populations and indigenous communities. Targeted investments include infrastructure funding to create spaces in underserved areas, additional operational grants for designated providers, and specific inclusion supports such as funding to support workers to assist children with complex needs. In parallel, policies require designated settings to implement inclusion strategies and reinvest public funding into quality and equitable access.

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5

Supporting workforce development and quality improvement in early childhood education and care systems

Drawing on data from the 2024 Starting Strong Teaching and Learning International Survey (TALIS Starting Strong), this chapter examines staff participation in job-embedded training and collaborative learning as a key lever to enhance staff skills and knowledge while also reducing disparities in staff practice. It also considers monitoring practices that can help identify where to focus additional support and better target improvement measures. Beyond policies targeting quality improvements in the workforce and in settings, the chapter also examines transition support mechanisms that can help ensure smooth and continuous early childhood education and care experiences for children within a fragmented system.

Key findings

- **While traditional forms of professional development remain common, most staff in settings for children under age 3 also participate in job-embedded training and collaborative learning activities aligned with their day-to-day work with children.** This participation more frequently takes the form of professional learning networks, particularly for home-based staff who have fewer opportunities to interact with peers on a daily basis. Coaching programmes are less prevalent overall, with the notable exception of Israel, particularly in home-based settings. In Ireland and Israel, staff working with more vulnerable children engage more in coaching, suggesting some targeting of these programmes.
- **Participation in coaching programmes is linked with greater use of practices** related to child-centred planning in the Flemish Community of Belgium, while coaching and planned visits within one's own setting or across early childhood education and care (ECEC) settings are associated with more frequent literacy and numeracy practices in several systems. In Ireland and Israel, staff participation in professional learning networks is related to greater use of practices supporting literacy, numeracy or pro-social development, as well as greater adaptation of activities to children's levels of development.
- **Barriers to participating in professional development most often reflect support constraints (e.g. lack of replacement staff, lack of time and high costs) and are more pronounced in some settings.** Staff in settings with higher percentages of children from socio-economically disadvantaged homes in the Flemish Community of Belgium and Ireland more frequently report barriers associated with technology or geography constraints, as well as with cost in Ireland, compared with staff working with fewer such children.
- **Support for professional development is not targeted to settings that may be more in need, although it appears to alleviate some barriers to participation.** Most systems provide monetary and non-monetary support for staff to participate in professional development, but support does not appear to be targeted to settings with higher proportions of vulnerable children.
- **External monitoring tends to be more frequent in settings facing more pronounced resource constraints or lower quality practices.** It tends to occur more frequently in specific types of settings, reflecting targeted efforts to support quality in the weakest or less regulated parts of the sector or to cover large shares of staff and children. In Israel and Norway, some monitoring practices are more frequent in settings with more vulnerable children. While internal quality monitoring practices tend to be well-established, they are less prominent in settings serving more vulnerable children in some systems.
- **Staff training pays only limited attention to children's transitions to pre-primary and more vulnerable children may not benefit from the additional support needed to navigate transitions smoothly.** In systems with split governance or no integrated settings, support for children's transitions focuses more on the transition to primary education than on transitions within ECEC, suggesting children are at risk of experiencing a stressful transition at an early age. While settings serving higher shares of more vulnerable children in Ireland and New Brunswick (Canada) provide more activities to support children's transitions, no such differences are observed in other systems. In parallel, leaders of public settings and of settings serving more vulnerable children in some systems report greater professional development needs for collaborating with external actors.

Introduction

Strong ECEC systems provide equal access to quality environments for children's holistic development, learning and well-being, building on a qualified workforce and co-ordinated services that ensure continuity in children's pathways (Leseman and Slot, 2025^[1]). Yet the fragmentation of the sector in many countries means that not all children may participate in quality ECEC experiences, depending on the setting they attend or characteristics that may increase their vulnerability (see Chapters 3 and 4). Reducing variations in quality, particularly in the context of an expanding sector, is pivotal to building equitable ECEC systems that enable all children to thrive.

Chapter 2 showed that in some systems, children experiencing vulnerability are more likely to be concentrated in some parts of the system. Chapter 3 revealed that staff beliefs about developmental priorities for children and their practices with children (process quality) can vary across the different segments of the sector. Chapter 4 further demonstrated that material and human resources (structural quality), staff working conditions, and their intentions to leave the sector also differ across the system. Combined, these findings suggest that, dependant on their characteristics or the setting they are enrolled in, children do not have an equal likelihood of attending the same quality ECEC. At the same time, the fragmentation of the sector can help governments target efforts to parts of the sector where vulnerable children are more likely to be enrolled.

This chapter explores policies and mechanisms aimed at reducing quality variation across ECEC settings and promoting continuous quality improvement. Drawing on evidence from TALIS Starting Strong 2024, it examines staff participation in professional development, and particularly in job-embedded training and collaborative learning, as a key lever to enhance staff skills and knowledge while also reducing disparities in staff practice. It also considers monitoring practices that can help identify where support is needed to better target improvement measures. Beyond policies targeting quality improvements in the workforce and in settings, the chapter also examines transition support mechanisms that facilitate children's transitions from home to ECEC, within ECEC and beyond, helping to ensure smooth and continuous ECEC experiences for children across the system. Specifically, the chapter addresses the following questions:

- Does staff exposure to job-embedded training and collaborative learning differ across different types of ECEC provision and settings? How do barriers to and support for staff participation in professional development vary with setting characteristics?
- What aspects of the quality of ECEC are monitored in ECEC settings, at what frequency and how does this vary with setting characteristics? How do monitoring practices interact with the distribution of leadership responsibilities and sector governance (split versus integrated)?
- Do settings undertake activities to facilitate children's transition to a new ECEC setting and how does this vary across settings? Are staff prepared to facilitate transitions in ECEC?

Supportive environments for staff development across the system

Quality professional development can ensure all staff continue to develop their skills throughout their career and adapt to the ever-changing needs of the children they interact with, irrespective of the contexts in which they work (OECD, 2020^[2]). The effectiveness of professional development hinges on the quality of activities staff can access. Job-embedded training and collaborative learning activities have been shown to enhance staff practices with children and translate into positive outcomes for staff and children, particularly when coaching is involved. They also provide a cost-effective way to develop staff expertise in formal or informal learning contexts (Egert, Fukkink and Eckhardt, 2018^[3]; Markussen-Brown et al., 2017^[4]; OECD, 2020^[2]; 2025^[5]; Peleman et al., 2018^[6]). However, engaging in professional development can entail direct and indirect costs for staff (Boeskens, Nusche and Yurita, 2020^[7]). Hence, providing support for staff

to participate in professional development can improve access and alleviate some of the barriers associated with participation. Job-embedded training and collaborative learning can also enable more equal access to professional development while also supporting setting-wide professional learning and addressing local needs.

This section examines the extent to which staff in different settings engage in professional development, and particularly in job-embedded training and collaborative learning (including planned visits to one's or other ECEC settings, professional learning networks, and coaching and induction programmes). It also explores the barriers to professional development staff in different parts of the sector experience and the types of support for professional development participation that can alleviate some of these barriers.

Most systems do not require nor regulate professional development activities, yet most staff report participating in such activities

Participation in professional development is not formally required in most participating systems (Table 5.1). Only Germany and the two Canadian provinces (for some ECEC settings only) formally require participation in professional development. Yet even in these systems, professional development requirements do not apply consistently to staff in all types of ECEC settings. For instance, requirements differ by setting type or region in Germany and both Canadian provinces, potentially translating into varying degrees of staff participation in professional development within the system. While requirements can support staff participation, they do not necessarily translate into quality professional development experiences.

Voluntary participation in professional development, whether in addition to requirements or not, can be a result of intrinsic staff motivation or extrinsic motivation gained through the provided support. In countries and subnational entities participating in TALIS Starting Strong 2024, staff participation in professional development is high overall, with over 85% of staff participating in at least one professional development activity in the 12 months prior to the survey in most systems (OECD, 2025^[8]).

Table 5.1. Professional development participation requirements and regulations for ECEC staff

Annual requirements in participating countries and subnational entities

Country/subnational entity	Annual participation in professional development
Flemish Community (Belgium)	Both childcare (<i>kinderopvang</i>) and pre-primary education settings (<i>kleuteronderwijs</i>) are required to provide training in professional development, although there are no requirements on the content, intensity or delivery mode.
Germany	For family childcare (<i>Kindertagespflege</i>), regulations are set at the state level. Most states require annual participation in professional development (e.g. Bavaria, North Rhine-Westphalia, Hesse, Saxony-Anhalt, Mecklenburg-Western Pomerania).
	For early childhood education and care (ECEC) settings for mixed age groups (<i>Kindertageseinrichtungen mit Kindern aller Altersgruppen</i>), children under age 3 and children age 3-6, annual participation in professional development for staff is required and regulated.
Ireland	Annual participation in professional development for staff in centre-based settings is neither regulated nor required.
Israel	The government does not require annual participation in professional development.
New Brunswick (Canada)	For early learning and childcare facilities/ <i>garderies éducatives</i> , participation is neither regulated nor required.
	Staff in designated ECEC settings are required to complete at least ten hours of professional training per year.
New Zealand	Participation in professional development for staff is not regulated in kindergartens and home- and centre-based education and care settings. It is neither regulated nor required for play centres.
Norway	Participation is not mandatory.

Country/subnational entity	Annual participation in professional development
	For centre-based settings (<i>centres de la petite enfance/garderie éducative</i>), participation in professional development is neither regulated nor required.
Quebec (Canada)	For home-based settings (<i>garde éducatif en milieu familial</i>), a minimum of six hours of professional development is required per year to maintain the setting's status.

Note: "Professional development" is defined as activities designed to develop an individual's skills, knowledge and expertise as an ECEC staff or leader (or more generally as a professional).

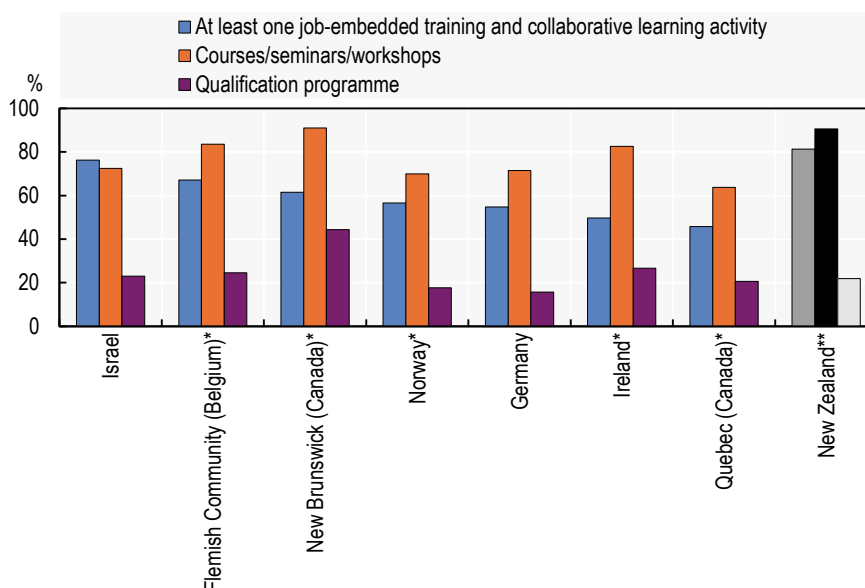
Source: OECD (2025^[8]), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, Annex A.

A majority of staff in most countries and subnational entities have participated in at least one type of job-embedded and collaborative learning activity

Staff in settings for children under age 3 most frequently take part in traditional professional development activities in the form of courses, seminars and workshops (Figure 5.1). High uptake in traditional professional development activities is, however, combined with participation in job-embedded training and collaborative learning activities (Table C.5.1). At least 50% of staff working in settings for children under age 3 across most participating countries and subnational entities report having taken part in at least one job-embedded training and collaborative learning activity in the 12 months prior to the survey (Figure 5.1).

Figure 5.1. Staff participation in professional development activities

Percentage of staff in settings for children under age 3 who participated in the following types of professional development activities in the 12 months prior to the survey



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Countries and subnational entities, except New Zealand**, are ranked in descending order of staff participation in at least one job-embedded and collaborative learning activity in the 12 months prior to the survey.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.5.1.

StatLink  <https://stat.link/nai2w8>

Staff participation in job-embedded and collaborative learning activities tends to be similar at both ECEC levels in systems with integrated governance. Staff at both ECEC levels in the Flemish Community of Belgium and Israel, where ECEC governance is split (see Chapter 2), are equally likely to participate in traditional professional development activities, whereas differences emerge for participation in job-embedded and collaborative learning activities. For instance, staff in settings serving children under age 3 participate more in induction programmes in Israel, and in coaching programmes in the Flemish Community of Belgium and Israel, compared with staff in pre-primary settings (Table C.5.1).

Formal or informal ECEC staff networks are the most common form of collaborative learning activities, and uptake is related to greater usage of practices to facilitate children's development

Among job-embedded training and collaborative learning activities, staff in settings for children under age 3 in most countries and subnational entities most frequently participate in formal or informal ECEC staff networks. This pattern is observed in the Flemish Community of Belgium, both Canadian provinces, Ireland, Israel, New Zealand** and Norway, with more than 30% of staff participating in staff networks (Table 5.2). Staff networks can help foster a community among ECEC staff, which promotes individual and collective staff self-efficacy and improvements in children's outcomes (OECD, 2025^[5]; Vangrieken et al., 2017^[9]). Participation in staff networks is associated with increased use of practices in facilitating numeracy and literacy development in Israel (Tables C.3.25, C.3.26, C.3.27, C.3.28) and with practices in facilitating pro-social development in Ireland (Table C.3.23). Staff who participate in networks are more likely to provide different activities to suit different children's levels of development in Ireland and Israel (Tables C.5.2 and C.5.3). In Israel, staff who participated in networks are also more likely to read books to children and encourage pre-verbal children to point to pictures when looking at a book (Tables C.3.29, C.3.30, C.3.35 and C.3.36). These results are robust to the consideration of a range of staff, children and setting characteristics that could shape staff practices with children, such as staff's highest level of education or experience, the concentration of children under age 3 in the group staff work with, setting management and profit status.

Table 5.2. ECEC staff participation in professional development activities

Percentage of staff in settings for children under age 3 who participated in each type of professional development activity in the 12 months prior to the survey

	Traditional professional development			Job-embedded and collaborative learning					
	Courses/seminars/ workshops	Conferences where ECEC staff and/or researchers present their research or discuss education and care issues	Qualification programme	Planned visits to other ECEC settings to inform my practice	Planned visits to other classroom/ playgroup/group at this ECEC setting to inform practice	Coaching programme as part of a formal ECEC setting arrangement	Formal or informal ECEC staff networks for the purpose of professional learning	Induction/orientation programme	Other
Flemish Community (Belgium)*	84	41	25	20	33	34	34	16	19
Germany	72	30	16	19	35	19	22	12	22
Ireland*	83	24	27	13	23	21	30	28	23
Israel	73	42	23	25	34	67	43	62	22
New Brunswick (Canada)*	91	46	44	13	30	20	49	27	20
Norway*	70	38	18	4	19	10	47	16	19
Quebec (Canada)*	64	40	21	7	14	23	32	16	14
New Zealand**	91	50	22	32	30	38	64	45	60

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The shading of the cells reflects the within-system ranking of reported professional development participation in each activity type among the nine areas covered in the survey. In each system, activities staff most frequently participate in are shown in darker shades. Activities reported less frequently appear in lighter shades, with white indicating the least frequently reported activities. Intermediate shades represent mid-range frequencies. Grey cells indicate low survey coverage.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.5.1.

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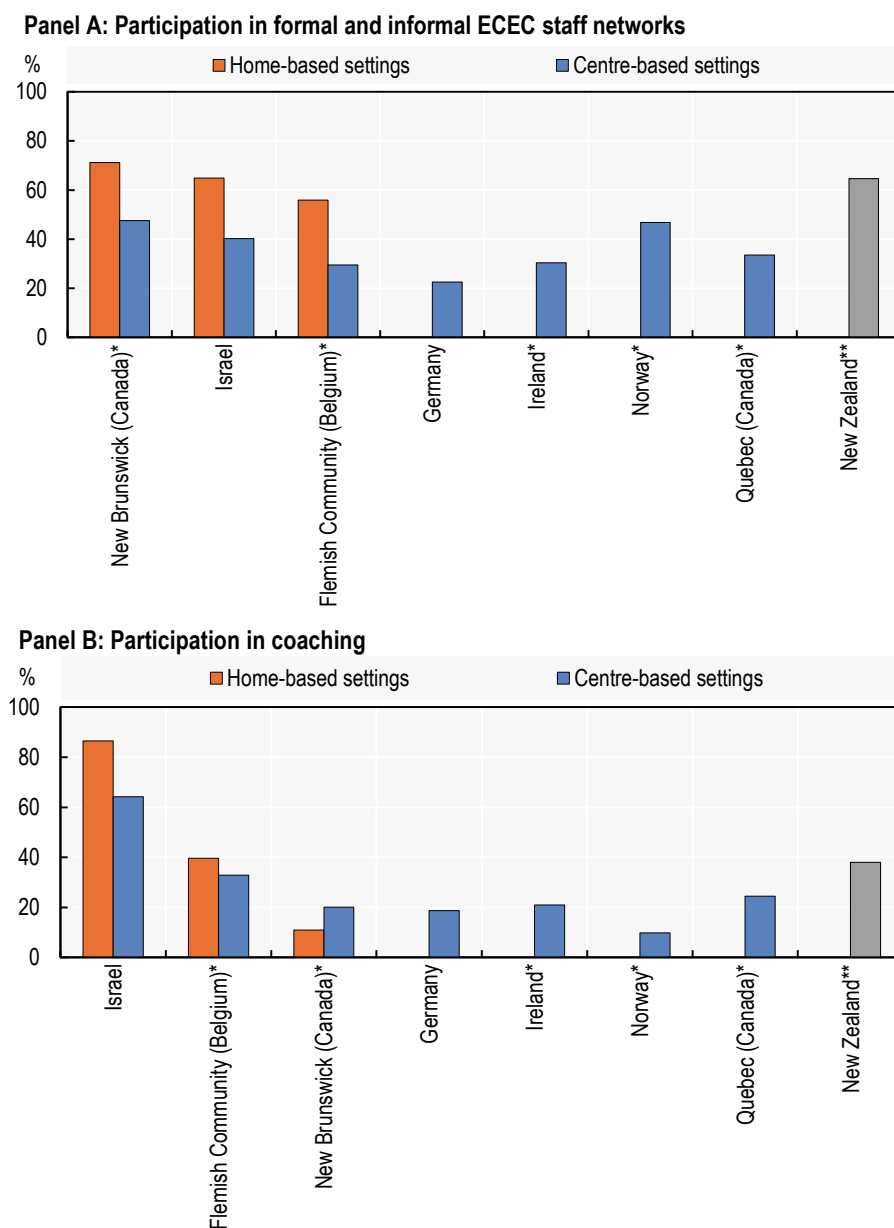
Staff use formats of collaborative professional development that best match the organisation of work with young children

Staff networks can be a reliable professional development opportunity for staff in smaller settings and in home-based settings who have fewer opportunities for interacting with peers on a daily basis. Staff in home-based settings more commonly take part in professional networks than staff in centre-based settings in the Flemish Community of Belgium, Israel and New Brunswick (Canada) (Figure 5.2). This pattern also aligns with evidence that home-based settings can be organised in networks (see Box 2.1 in Chapter 2). Staff in home-based settings in Israel also take part in coaching programmes and induction programmes significantly more than staff in centre-based settings. In smaller settings in Germany and Israel, staff also participate more in professional networks and inductions than staff in larger settings (C.5.4).

Although staff are less engaged in planned visits to other ECEC settings, likely due to constraints that come with working with very young children, they do tend to take part in peer observations in the form of planned visits within their own setting, with around a third of staff participating in this kind of visit in several countries and subnational entities. Staff participation in planned visits, whether to other ECEC settings or within their own setting, is associated with increased use of staff practices in facilitating literacy development in New Brunswick (Canada) and in facilitating numeracy development in Germany, Israel and New Brunswick (Canada) (Tables C.3.25, C.3.26, C.3.27 and C.3.28).

Figure 5.2. Participation in professional development activities for staff in centre-based and home-based ECEC settings

Percentage of staff in settings for children under age 3 who participated in formal and informal professional learning networks and coaching in the 12 months prior to the survey



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. In Panel A, countries and subnational entities, except New Zealand**, are ranked in descending order of participation in staff networks of staff from home-based settings. In Panel B, countries and subnational entities, except New Zealand**, are ranked in descending order of participation in coaching of staff from home-based settings.

Source: OECD (2025), TALIS Starting Strong 2024 Database, Table C.5.1.

Coaching is associated with greater use of practices to support children’s development and is more common among staff working with more vulnerable children in some systems

Around 20-30% of staff in most countries and subnational entities participating in TALIS Starting Strong 2024 participate in coaching programmes, with the exception of Norway, where only 10% of staff do, and Israel, where over 60% of staff report taking part in this form of professional development (Table 5.2). Yet staff participation in coaching is associated with greater use of practices to facilitate children’s development in some systems. In the Flemish Community of Belgium, staff who participate in coaching make greater use of practices related to child-centred planning (Tables C.3.33 and C.3.34). Participation in coaching programmes is also related to greater use of numeracy practices in Quebec (Canada) and literacy practices in Quebec (Canada) and New Zealand** (Tables C.3.25, C.3.26, C.3.27 and C.3.28). These results align with others that have shown that coaching programmes can improve staff-child interactions and are especially effective when implemented over longer periods of time (OECD, 2025^[5]; Fiene, 2002^[10]; Peleman et al., 2018^[6]).

Targeting coaching provision to settings with more vulnerable children can enhance staff practice within these settings, where professional development needs are high (see Chapter 4). Staff in settings with more vulnerable children in Ireland (children from socio-economically disadvantaged homes and children with special education needs) participate more in at least one job-embedded training and collaborative learning activity in general, and more specifically, these staff in Ireland, as well as staff in settings with more children from socio-economically disadvantaged homes in Israel, participate more in coaching programmes than staff in settings with lower percentages of these children (Tables C.5.5 and C.5.6 and Table 5.3). In the Flemish Community of Belgium, staff in privately managed not-for-profit settings also report higher participation in coaching; staff in these settings are also more likely to work with higher shares of vulnerable children (see Chapter 2).

Table 5.3. ECEC staff participation in coaching programmes by setting characteristics

Differences in the percentage of staff in settings for children under age 3 who reported taking part in coaching programmes in the 12 months prior to the survey, by setting characteristics

+	Coaching participation significantly more common in:
-	Coaching participation significantly less common in:
	Coaching participation is similarly common in:
	Missing values

	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Centre-based settings (reference category: home-based settings)	Settings with 10% or more of children with special education needs (reference category: settings with less than 10% of children)	Settings with 10% or more of children from socio-economically disadvantaged homes (reference category: settings with less than 10% of children)
Flemish Community (Belgium)*		-			
Germany					
Ireland*				+	+
Israel			-		+
New Brunswick (Canada)*	-				
Norway*					
Quebec (Canada)*					
New Zealand**					

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.5.1, C.5.5, C.5.6 and C.5.7.

StatLink  <https://stat.link/u32khy>

Barriers to participation in professional development most often reflect support constraints and are more pronounced in specific types of settings

Despite widespread staff engagement in professional development, staff still experience barriers to participation. Barriers associated with support constraints – lack of sufficient staff to fill in for absences, lack of time and high costs – tend to be more commonly reported than barriers associated with staff skills or qualifications (Table 5.4) (OECD, 2025^[8]). In Israel, lack of access to digital resources or transportation difficulties to reach the location where the professional development is delivered are also reported by a comparatively high share of staff relative to other barriers.

Table 5.4. Barriers to ECEC staff participation in professional development

Percentage of staff in settings for children under age 3 who “agreed” or “strongly agreed” that the following are barriers to their participation in professional development

	Lack of skill or experience	Technology or geography constraints	Professional development is too expensive	Lack of ECEC setting leader support	Lack of time	No professional development offered in areas of my interest	No incentives to participate	Insufficient staff to fill in for my absence
Flemish Community (Belgium)*	21	21	33	12	40	19	19	59
Germany	25	20	39	15	39	19	18	53
Ireland*	40	42	69	41	71	35	62	74
Israel	39	44	40	13	51	23	40	49
New Brunswick (Canada)*	32	27	30	28	60	25	36	54
Norway*	35	25	52	9	57	21	23	65
Quebec (Canada)*	33	23	39	19	52	15	29	56
New Zealand**	33	24	51	24	58	35	34	40

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: The shading of the cells reflects the within-system ranking of reported professional development participation in each activity type among the eight categories of barriers to staff participation in professional development. In each system, darker shades represent activities staff most frequently participated in. Activities reported less frequently appear in lighter shades, with white indicating the least frequently reported activities. Intermediate shades represent mid-range frequencies. Grey cells indicate low survey coverage.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.5.8.

StatLink  <https://stat.link/jfse15>

Differences in reported barriers to participation in professional development are linked with provision type in some systems (Table 5.5). Staff working in home-based settings in the Flemish Community of Belgium report insufficient staff to fill in for absences as a barrier to professional development participation more than staff in centre-based settings, in line with the lack of support staff in home-based settings (see Chapter 4). In New Brunswick (Canada), a lack of time to participate in professional development is more often a barrier for staff in home-based settings than those in centre-based settings. On the other hand, a lack of skills or experience is more often reported by staff in centre-based settings than in home-based settings in Israel and New Brunswick (Canada).

While staff in general report a need for targeted professional development to support vulnerable children (see Chapter 4), barriers to participation in professional development tend to be similar irrespective of the share of vulnerable children in the setting, with some exceptions. Staff in settings with higher percentages of children from socio-economically disadvantaged homes in the Flemish Community of Belgium and Ireland more frequently report barriers associated with technology or geography constraints, as well as with cost in Ireland, compared to staff in settings with lower percentages of these children (Table 5.5). These findings suggest that challenges associated with working with more vulnerable children can further compound existing structural constraints to staff professional development participation. In contrast, staff in Germany and New Brunswick (Canada) working with higher percentages of children with special education needs are less likely to report time as a barrier than staff working with fewer of these children.

Reported barriers to participation in professional development also differ by management arrangements in some systems. Staff in privately managed not-for-profit settings report insufficient staff to fill in for absences in the Flemish Community of Belgium and Israel, and a lack of ECEC setting leader support in Israel and New Zealand** as barriers to participation in professional development more than staff in privately managed for-profit settings (Table 5.5). Staff in private settings in New Brunswick (Canada) are more likely to report a lack of relevant professional development as a barrier to participation than those working in public settings (Table C.5.8).

Table 5.5. Barriers to ECEC staff participation in professional development by setting characteristics

Differences in the percentage of staff in settings for children under age 3 reporting a range of barriers to participation in professional development, between different types of settings

	Barrier significantly more common in:
	Barrier significantly less common in:
	Barrier similarly common in both types of settings

	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Centre-based settings (reference category: home-based settings)	Settings with 10% or more of children with special education needs (reference category: settings with less than 10% of children)	Settings with 10% or more of children from socio-economically disadvantaged homes (reference category: settings with less than 10% of children)
Lack of skill or experience			Israel, New Brunswick (Canada)*		
Technology or geography constraints					Flemish Community (Belgium)*, Ireland*
Professional development is too expensive		Quebec (Canada)*			Ireland*
Lack of ECEC setting leader support	Germany	Israel, New Zealand** (-)			
Lack of time	Norway*		New Brunswick (Canada)*	Germany, New Brunswick (Canada)*	
Insufficient staff to fill-in for my absence		Flemish Community (Belgium)*, Israel	Flemish Community (Belgium)*		New Brunswick (Canada)*

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.5.8, C.5.9, C.5.10 and C.5.11.

StatLink  <https://stat.link/uisdvk>

Most systems provide different forms of support for staff participation in professional development, but support is not targeted to settings that may be more in need

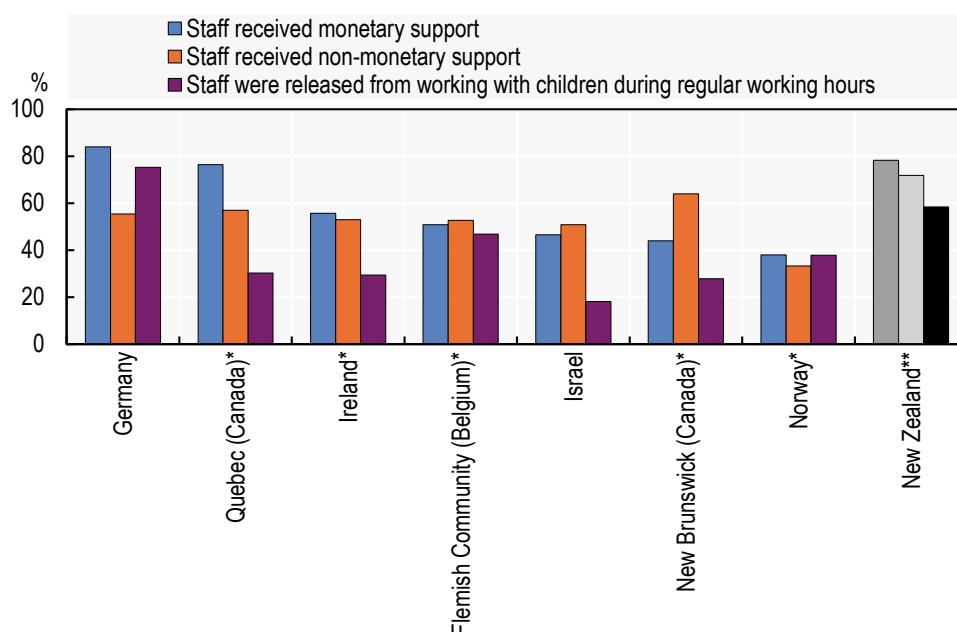
TALIS Starting Strong 2024 provides information on the types of support staff benefited from for their professional development participation: 1) release from working with children during regular working hours; 2) monetary support such as supplements for time spent outside working hours, reimbursement or payments of professional development costs; and 3) non-monetary support such as resources/materials, book vouchers or software/apps.

Support, whether monetary, non-monetary or in the form of release from working with children during regular hours, is associated with enhanced participation in job-embedded training and collaborative learning (OECD, 2025^[8]). Most systems provide different types of support to facilitate staff participation in professional development, with monetary support being the most common type in several systems. Staff in Germany, Ireland, New Zealand**, Norway and Quebec (Canada) more frequently receive monetary support, such as monetary supplements, reimbursements or increased salary, compared with other forms

of support (Figure 5.3). This is especially pronounced in Germany, New Zealand** and Quebec (Canada), where over 75% of staff received monetary support. Non-monetary support such as receiving materials needed for activities, non-monetary rewards or non-monetary professional benefits, is more frequently reported than other types of support by staff in the Flemish Community of Belgium, Israel and New Brunswick (Canada). In contrast, releases from working with children to support professional development participation tend to be less common. Only in Germany and New Zealand** do more than half of staff report receiving such support.

Figure 5.3. Support for ECEC staff participation in professional development activities

Percentage of staff in settings for children under age 3 who received the following types of support to facilitate participation in professional development in the 12 months prior to the survey



* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A. Note: ECEC: early childhood education and care.

Countries and subnational entities, except New Zealand**, are ranked in descending order of the percentage of staff who reported receiving monetary support to participate in professional development.

Source: OECD (2025), TALIS Starting Strong 2024 Database, Table C.5.12.

StatLink  <https://stat.link/jq4p8m>

Support for staff participation in professional development is unevenly distributed within systems and does not appear to prioritise settings where training needs may be more pronounced. In some systems, staff in settings that already display comparatively stronger workforce characteristics are more likely to benefit from support for professional development participation. In Norway, staff in privately managed settings more frequently receive non-monetary and monetary support and these settings also employ higher shares of qualified staff (Table C.5.12 and see Chapter 4). Similarly, staff in publicly managed settings in Germany benefit from releases from working with children more frequently than staff in privately managed settings. Yet staff in public settings in Germany already report higher levels of practical training to work with children and make greater use of international practices to support children's development, even when participation in job-embedded training and collaborative learning is accounted for (see Chapter 3). By contrast, support

for staff participation in professional development is similar across settings with different compositions of children (Tables C.5.13, C.5.14 and C.5.15). Taken together, these patterns suggest that support for participation in professional development does not appear to specifically target settings with greater needs, such as those with higher proportions of vulnerable children and where professional development needs tend to be more marked (see Chapter 4).

Support can alleviate barriers to professional development participation in some contexts

Different forms of support available to staff may be linked with alleviating certain barriers to participation in professional development and investigating these links may allow systems to better align their policies to improve learning opportunities for staff.

Insufficient staff to fill in for absences due to professional development participation is the main barrier to staff participation in training (see Table 5.5). However, staff who received support in the form of release from working with children during regular working hours did not report barriers at significantly different rates compared with those who did not receive this type of support (Table C.5.16). This may reflect that while releases can support staff participation, they may not be sufficiently frequent or widespread to substantially reduce the perception of some barriers, particularly the lack of replacement staff. For instance, staff who were released from working with children may either report no barriers because the release was effective for them or may still identify it as a barrier because lack of replacement staff remains a major obstacle for most staff in absolute terms. However, staff receiving other types of support in some systems are less likely to report a lack of replacement staff as a barrier (Table 5.6). Staff who receive monetary support in New Brunswick (Canada) and those who benefit from non-monetary support in Norway and Quebec (Canada) less frequently report insufficient replacement staff as a barrier to their participation in professional development.

Monetary and non-monetary support also appear to be linked with fewer accessibility barriers in some systems. Staff who received non-monetary support in Germany and Norway are less inclined to report barriers related to digital resources and tools or transportation to and/or from the location where the professional development is delivered. A similar pattern is visible in Quebec (Canada), where fewer staff who benefited from monetary support report such barriers compared with staff who did not receive such support. While monetary support tends to be associated with fewer concerns about the cost of professional development in Germany, staff receiving monetary support are more likely to report a lack of technology or geography constraints as barriers. Coupled with evidence on non-monetary support, this suggests that in Germany, monetary support alone may be insufficient to address barriers related to geography or technology constraints experienced by staff. Staff in the Flemish Community of Belgium who received support to participate in professional development did not report any different barriers than those who did not receive support. Given that time and cost and insufficient staff are the most frequently reported barriers to participation in professional development in the Flemish Community of Belgium, this may suggest that certain support types may not be fully sufficient to alleviate barriers when provided individually and may be more effective if combined with other supports.

Table 5.6. Barriers to ECEC staff participation in professional development by type of support received

Differences in barriers reported by staff in settings for children under age 3 to participation in professional development between staff who received or did not receive monetary or non-monetary support

+	Barrier more commonly reported by staff receiving the support
-	Barrier less commonly reported by staff receiving the support
	Barrier reported at similar levels among staff receiving and not receiving the support

	Lack of technology or geography		Professional development is too expensive		Lack of time		Insufficient staff to fill-in for my absence	
	Staff received monetary support (reference category: staff did not receive monetary support)	Staff received non-monetary support (reference category: staff did not receive non-monetary support)	Staff received monetary support (reference category: staff did not receive monetary support)	Staff received non-monetary support (reference category: staff did not receive non-monetary support)	Staff received monetary support (reference category: staff did not receive monetary support)	Staff received non-monetary support (reference category: staff did not receive non-monetary support)	Staff received monetary support (reference category: staff did not receive monetary support)	Staff received non-monetary support (reference category: staff did not receive non-monetary support)
Flemish Community (Belgium)*								
Germany	+	-	-					
Ireland*						-		
Israel								
New Brunswick (Canada)*							-	
Norway*		-						-
Quebec (Canada)*	-							-
New Zealand**				+				

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.5.16.

StatLink  <https://stat.link/li3zr4>

Steering the system towards quality through monitoring

Quality monitoring in ECEC fulfils several objectives, from meeting public accountability requirements to providing insights that can guide improvement measures across the sector and at local levels and help families make more informed choices (OECD, 2025^[11]). Systematically tracking multiple areas of performance is a key feature of strong ECEC systems (Leseman and Slot, 2025^[11]). Monitoring establishes a shared understanding of standards and expectations for all types of ECEC providers, making it a key part of quality assurance processes across the sector. In addition, by drawing on collected evidence, monitoring policies can underpin efforts to reduce variations in quality and promote equity in ECEC systems. Monitoring, therefore, plays a crucial role in assuring the quality of a fragmented sector. It can guide the design of targeted supports, including professional development opportunities that meet the varying needs of ECEC staff who operate in different contexts.

TALIS Starting Strong 2024 collects evidence on the frequency and scope of external monitoring in ECEC settings, which are practices of evaluating ECEC settings by assessors/evaluators from outside the setting, leaders' own observations of staff practices and provision of feedback to staff, or internal monitoring. This section examines the external and internal monitoring practices available in settings serving children under age 3 and whether these are shaped by the characteristics of the settings in which staff operate.

External monitoring is common in most systems but monitoring of process quality only covers a limited proportion of settings in some systems

External monitoring of structural quality features is common in several, but not all, participating systems (Table 5.7). In Ireland, Israel, New Brunswick (Canada) and New Zealand**, more than 80% of leaders report their settings receive external monitoring of facilities or other structural features at least once every two years. In contrast, only 30% of leaders in the Flemish Community of Belgium report that facilities are examined at least once every two years, and 21% report similar monitoring frequency for other structural features. While there is no established optimal frequency for external monitoring practices, a relatively high share of settings in some systems benefit from external monitoring of structural quality features only very rarely. Staffing-related challenges are often identified as a major barrier to quality provision and although physical shortages are less recurrent than staffing constraints, they tend to be concentrated in settings with more vulnerable children (see Chapter 4). Constraints related to ventilation and noise can also be a concern in some contexts. Where monitoring of structural quality features is absent or infrequent, settings may lack the appropriate support to address material deficiencies while authorities in charge of ECEC may have limited visibility over the scope and nature of staffing constraints.

The monitoring of financial records is overall less common across systems, except in New Zealand**. This is because most ECEC settings receive public funding, even if they are privately managed (see Chapter 2) and leaders are often responsible for allocating budgets within settings. In Ireland, Israel and New Brunswick (Canada), leaders are also often responsible for establishing staff salaries. In some systems, including the Flemish Community of Belgium, Israel and Quebec (Canada), more than 40% of leaders report never receiving external inspections or monitoring of financial records (Table Leader.34) (OECD, 2025^[8]).

As leaders and staff have significant pedagogical responsibilities in most ECEC settings (see Chapter 2), external monitoring practices of process quality provide an external perspective that can support practices, drive improvement and facilitate access to appropriate supports (e.g. training). In the Flemish Community of Belgium, Germany and Norway, external monitoring of staff practices by trained observers takes place in around one-third of settings at least once every two years. As participation in planned visits to observe practice or coaching remain relatively low across the workforce (Table 5.7), many staff miss out on the insights that an external perspective can offer to enhance their practice, particularly in the context of many small ECEC settings. Yet in Israel and New Brunswick (Canada), external monitoring of structural and

process quality go hand in hand. Almost all leaders in these systems report external monitoring covering structural quality features of their settings and staff practices at least every two years.

Table 5.7. External monitoring of structural and process quality of ECEC settings

Percentage of ECEC settings for children under age 3 whose leaders reported their ECEC setting receives the following types of external inspection or monitoring “once every two years”, “once every year” or “more than once every year”

	External inspection/monitoring of facilities for meeting health, safety and infrastructure requirements	External inspection/monitoring of other structural features	External inspection/monitoring of financial records	External inspection/monitoring of staff practices by trained observers
Flemish Community (Belgium)*	30	21	10	26
Germany	78	60	55	27
Ireland*	83	84	67	77
Israel	98	90	54	99
New Brunswick (Canada)*	99	99	52	97
Norway*	56	63	64	33
Quebec (Canada)*	71	66	47	60
<i>New Zealand**</i>	87	58	81	61

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: “External inspection/monitoring of other structural features” can include the monitoring of features such as child-adult ratio, group size or staff qualification levels. “External inspection/monitoring of staff practices by trained observers” can include the monitoring of practices such as the quality of interactions with children or content of activities. “External inspection/monitoring of financial records” can include financial audits. The shading of the cells reflects the within-country ranking of monitoring areas. In each country, the most frequently reported areas for monitoring are indicated in darker shades. The least frequently reported areas for monitoring are indicated in white. Areas for monitoring for which intermediate percentages of staff reported having a high or moderate need are indicated by intermediate shades. Gray cells indicate low survey coverage.

ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Table C.5.17.

StatLink  <https://stat.link/kguzl>

External monitoring is more frequent in settings facing more pronounced resource constraints or lower quality practices in some systems

External monitoring tends to occur more frequently in specific types of settings, which can reflect targeted efforts to support quality in the weakest or less regulated parts of the sector or could potentially further amplify quality differentials if some low-quality parts of the sector are not covered (Table 5.8).

Table 5.8. Monitoring practices in ECEC settings by setting characteristics

Differences in the percentage of leaders in settings for children under age 3 reporting external monitoring practices between different types of settings

			Monitoring practices significantly more common in:							
			Monitoring practices significantly less common in:							
			Monitoring practices similarly common in both types of settings							
		Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)		Centre-based settings (reference category: home-based settings)		Non-integrated settings (reference category: integrated settings)		Settings in top tertile of setting size (reference category: settings in bottom tertile)	
External inspection/monitoring of facilities for meeting health, safety and infrastructure requirements			Quebec (Canada)*		Flemish Community (Belgium)*	Quebec (Canada)*	Quebec (Canada)*		Quebec (Canada)*	
External inspection/monitoring of other structural features			Quebec (Canada)*		Flemish Community (Belgium)*, Israel	Quebec (Canada)*	Quebec (Canada)*	Germany	Flemish Community (Belgium)*, Israel	Quebec (Canada)*
External inspection/monitoring of staff practices by trained observers			Quebec (Canada)*		Flemish Community (Belgium)*	Quebec (Canada)*	Quebec (Canada)*	Germany	Flemish Community (Belgium)*	Quebec (Canada)*
External inspection/monitoring of financial records	Norway*	Flemish Community (Belgium)*, Israel	Quebec (Canada)*	New Zealand** (-)	Flemish Community (Belgium)*, Quebec (Canada)*				Quebec (Canada)*	

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Notes: "External inspection/monitoring of other structural features" can include the monitoring of features such as child-adult ratio, group size or staff qualification levels. "External inspection/monitoring of staff practices by trained observers" can include the monitoring of practices such as the quality of interactions with children or content of activities. "External inspection/monitoring of financial records" can include financial audits. ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.5.17, C.5.18, C.5.19 and C.5.20.

StatLink  <https://stat.link/9edtrl>

In systems with home-based provision, monitoring practices that prioritise centre-based settings allow covering a larger share of the sector but may not enable quality enhancements in parts of the sector where improvements would be needed most. In Israel, monitoring of structural quality related to group size or child-staff ratios targets centre-based settings, which tend to have lower staff qualifications. However, monitoring of other structural and process quality aspects is comparable across settings, although home-based settings face more pronounced material shortages and staff in these settings use fewer practices to support children's development (see Chapters 3 and 4). In the Flemish Community of Belgium, monitoring is limited overall and concentrated in centre-based settings, despite efforts to cover all types of settings (Box 5.1): 46% of such settings receive external inspections of facilities, compared to 18% of home-based settings. While this may reflect a strategy to reach more children, it also points to disparities between settings likely guiding monitoring efforts: centre-based settings in the Flemish Community of Belgium face greater resource constraints and staff in these settings report lower use of practices to support children's development than in home-based settings (see Chapters 3 and 4). In contrast, in Quebec (Canada), monitoring of both structural and process quality is more frequent in home-based settings (except for inspections of financial records), where staff also report less frequent use of practices to facilitate children's development (see Chapter 3).

External monitoring practices vary between integrated and non-integrated settings in some systems (see Table 5.8). In Germany, integrated settings, which comprise the majority of settings in the sector (see Chapter 2), are more frequently monitored with respect to structural features and staff practices with children. These settings enrol more vulnerable children, and while staff qualifications tend to be higher,

staff shortages, stress and training needs for supporting vulnerable children are also more pronounced (see Chapter 4).

The diversity of children in the setting does not appear to shape monitoring practices in most countries and subnational entities (Tables C.5.21 and C.5.22). Israel and Norway are exceptions for some monitoring practices that are more frequent in settings with more vulnerable children. In Israel, external monitoring of structural features related to child-adult ratios and group sizes are more frequent in settings with higher shares of children with special education needs. Financial audits are also more likely to concern settings serving more children from socio-economically disadvantaged homes in Israel than settings serving fewer such children. In Norway, settings with more children from socio-economically disadvantaged homes more frequently receive external inspections of facilities than other settings.

In most systems, there are no differences in external monitoring of most areas between public and private, private not-for-profit and private for-profit settings (see Table 5.8), despite differences in structural and process quality between these settings (see Chapters 3 and 4). The main difference concerns financial audits, which tend to be more recurrent in public settings than in private ones in the Flemish Community of Belgium, Israel and Quebec (Canada). Only in Norway are financial records of private settings more frequently monitored than those of public settings.

Box 5.1. Aligning quality monitoring in home-based and centre-based settings

The Flemish Community of Belgium, a group of universities carried out a project entitled “Measuring and Monitoring the process or pedagogical Quality of Childcare for Babies and Toddlers (MeMoQ)” from 2013 to 2016. The project led to the development of a unified set of tools to support process quality monitoring in home-based and centre-based early childhood education and care (ECEC) settings. At the system level, a single framework defines pedagogical quality in settings across several dimensions: children’s well-being and involvement, emotional and educational support, the environment and respect for diversity, and collaboration with parents. These dimensions informed process quality measurements in a representative sample of settings in 2016 and 2023, resulting in recommendations for practice and policy. At the service level, an external evaluation tool was developed to enable the Care Inspectorate to evaluate the dimensions of process quality defined in the pedagogical framework alongside structural quality. Results from the visits were aggregated and analysed. Inspections remain at the initiative of the inspectorate or at the request of the Growing Up government agency following a complaint. A self-evaluation tool, aligned with the external evaluation tool, has also been developed to enable quality monitoring in individual settings, but its use is not compulsory.

In New Brunswick (Canada), early learning and childcare facilities/*garderies éducatives* fall under the New Brunswick Curriculum Framework for Early Learning and Child Care and the New Brunswick Francophone Curriculum Framework for Early Learning and Childcare (Curriculum éducatif Services de garde francophone du Nouveau-Brunswick). The Department of Education and Early Childhood Development holds responsibility for the licencing, monitoring and inspection of home-based and centre-based ECEC settings. Licensed facilities are inspected annually. Additional monitoring visits are required and determined based on the facility’s compliance history and assessed level of risk. Licensing and monitoring inspections are unannounced, with the monitoring inspection aiming to assess the setting’s compliance with the Early Childhood Services Act and regulations for licensed ECEC in New Brunswick (Canada). Annual inspection reports and the most recent monitoring inspection reports are meant to be posted in a visible place in the setting, to facilitate parents’ access to these sources. Operator manuals identify specific indicators of compliance with ECEC regulators, related to features of structural and process quality (e.g. programming and daily routine, supervision and child guidance, indoor and outdoor environment, safety and well-being of children) with the objective to help settings

and licensing applicants comply with regulatory requirements. Inspections of ECEC facilities build on these indicators to confirm compliance.

Sources: OECD (2025^[8]), *Results from TALIS Starting Strong 2024: Strengthening Early Childhood Education and Care*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/20af08c0-en>; Opgroeien (n.d.^[12]), *Kwaliteit en beleidsvoerend vermogen*, <https://www.opgroeien.be/aanbod/kinderopvang/voorzieningen/kwaliteit-en-beleidsvoerend-vermogen> (accessed on 28 May 2026), Eurydice (2023^[13]), *Quality assurance in early childhood and school education - Belgium - Flemish Community*, <https://eurydice.eacea.ec.europa.eu/eurypedia/belgium-flemish-community/quality-assurance-early-childhood-and-school-education> (accessed on 28 May 2026). Government of New Brunswick (n.d.^[14]), *Early Learning and Childcare Services*, https://www2.gnb.ca/content/gnb/en/services/services_renderer.2736.Early_Learning_and_Childcare_Services.html (accessed on 28 May 2026); Government of New Brunswick (2024^[15]), *Operator Manual Revision Chart: Early Learning and Childcare Homes*, <https://www2.gnb.ca/content/dam/gnb/Departments/ed/pdf/ELCC/OperatorManualEarlyLearningChildcareHomes.pdf> (accessed on 28 May 2026).

Internal quality monitoring is less common in settings serving more vulnerable children in some systems

Internal monitoring practices tend to be well-established in most ECEC systems. In Israel, New Brunswick (Canada) and New Zealand**, 80% of leaders or more report observing staff practices and staff-child interactions in the settings at least once a week (Table C.5.23). Providing feedback to staff based on observations is, however, less common across most systems, suggesting that staff and leaders may sometime miss out on opportunities for improvement triggered by monitoring practices. In Israel, however, 78% of leaders provide such feedback at least once a week.

Internal quality monitoring occurs with similar frequency across different types of settings in most countries and subnational entities. Yet in a few systems, internal quality monitoring is less of a focus in settings serving higher shares of vulnerable children. In the Flemish Community of Belgium, settings serving higher shares of children from socio-economically disadvantaged homes report less internal quality monitoring (Table C.5.24). Private not-for-profit settings in Ireland as well as larger and integrated settings in Germany report more limited internal quality monitoring than for-profit, smaller and non-integrated settings, respectively (Tables C.5.23, C.5.25 and C.5.26). These settings also serve higher concentrations of children from socio-economically disadvantaged homes (see Chapter 2).

Continuous child support for seamless ECEC transitions

ECEC programmes that adapt to children's and families' needs and co-ordinate with settings to which children transition or other stakeholders supporting vulnerable families can facilitate smoother transitions for children and enhance quality of practice (OECD, 2025^[11]). Transitions from home to ECEC and within ECEC from settings serving children under age 3 to pre-primary are sensitive moments for children as they adapt to the requirements of new environments, which can be a source of stress (OECD, 2025^[11]; Raittilla, Vuorisalo and Rutanen, 2025^[16]). Interactions between staff and children, but also between parents and children, and among children themselves within the setting, can mitigate the emotional intensity of transitions for children and foster emotional security (Gath et al., 2024^[17]; White et al., 2025^[18]). Children from socio-economically disadvantaged backgrounds may be more vulnerable during such transitions given the cumulated disadvantages to which they may be exposed (e.g. family stress, poor environmental conditions, lower access to services). This highlights the need for continuous and co-ordinated child and family support to facilitate children's transitions and sustain the benefits of different services provided to families while contributing to the long-lasting effects of ECEC (OECD, 2025^[11]).

TALIS Starting Strong 2024 collects evidence on the types of activities settings put in place to support children's transitions. To the extent that the survey asks leaders about activities to facilitate transitions to

a new ECEC setting or school, the data may capture leader reports of activities that may also pertain to transitions towards school rather than between ECEC levels, particularly in integrated settings. The survey also collects evidence on whether staff received training in their initial education or training programme or through professional development to support children's transitions and on leaders' professional development participation and needs in areas related to collaboration with parents, other settings or community services. This section explores staff and leaders' preparedness to support children's transitions and whether staff and leaders operating in different types of settings are consistently prepared to facilitate such transitions.

In split systems, support for children's transitions focuses more on the transition to primary education than on transitions within ECEC

In most systems, communicating with ECEC settings or primary schools about children, organising visits to the next ECEC setting or primary school, and providing activities for parents to understand the transition are the most common activities settings put in place to facilitate children's transitions (Table C.5.27). In contrast, in-service training for ECEC staff regarding transitions and working with local authorities to develop transition programmes are less common. In Germany, Ireland and Israel, however, at least half of ECEC settings report providing in-service training sessions for staff on transitions while Norway stands out for having more than 90% of settings work with local authorities to develop transition programmes.

In systems with integrated settings, settings serving children under age 3 and pre-primary settings provide activities to support children's transitions at similar frequencies. In most of these systems, integrated and non-integrated settings working with children under age 3 engage in similar practices to support transitions. Taken together, this evidence suggests that support is designed to facilitate children's transitions within ECEC (when it exists) and from ECEC to primary education. In Germany, non-integrated and integrated settings differ in their transition practices, potentially reflecting the additional practices offered by integrated settings to support children's transitions to school. Indeed, integrated settings in Germany more often hold meetings with staff across ECEC settings and work with local authorities to develop transition programmes (Table C.5.28). In Norway, where all settings are integrated, setting leaders report undertaking a comprehensive set of activities to support children's activities. Yet some of these may capture support for transitions to primary settings, as in Norway children under age 3 tend to be grouped together, hence transitions within ECEC are more likely to occur within the setting.

In split systems, support for children's transitions is more limited and focuses less on children's transitions within ECEC than on transitions from ECEC to primary education. In the Flemish Community of Belgium, fewer than one in four settings report any activity to support children's transitions, and in both the Flemish Community of Belgium and Israel, settings serving children under age 3 provide less support than pre-primary settings to facilitate children's transitions.

Settings serving higher shares of more vulnerable children provide more activities to support children's transitions in some systems

Settings serving more vulnerable children provide more activities to support children's transitions in some systems. Communicating with ECEC settings or primary schools and organising visits to these institutions are more frequent in settings with higher proportions of more vulnerable children in Ireland and New Brunswick (Canada) (Table 5.9). Leaders in Ireland are also more likely to report working with local authorities to develop transition programmes when they operate in settings with a higher concentration of children from socio-economically disadvantaged homes. In contrast, in the Flemish Community of Belgium, in-service training sessions for staff on transitions tend to be more common in settings serving fewer children from socio-economically disadvantaged homes.

Activities to facilitate children's transitions are more frequent in larger settings in some systems. In the Flemish Community of Belgium and Germany, larger settings are more likely to communicate with other settings or schools, organise visits to these institutions, hold meetings with staff in other settings or schools (in Germany), and provide activities for parents to understand transitions (in Germany). Larger settings may be better resourced to organise these activities whereas smaller settings, with fewer staff to mobilise, may find planning and implementing activities to support children's transitions more challenging. In Germany, these disparities may reflect the fact that larger settings are more likely to be integrated, and hence, unfold additional practices to facilitate children's transitions to primary (see above).

Table 5.9. Activities undertaken to facilitate children's transitions by ECEC setting characteristics

Differences in the percentage of leaders in settings for children under age 3 reporting the following activities to facilitate children's transitions between different types of settings

			Practices to facilitate children's transitions significantly more common in:		
			Practices to facilitate children's transitions significantly less common in:		
			Practices to facilitate children's transitions similarly common in both types of settings		
	Privately managed settings (reference category: publicly managed settings)	Privately managed for-profit settings (reference category: privately managed not-for-profit settings)	Settings with 10% or more of children with special education needs (reference category: settings with less than 10% of children)	Settings with 10% or more of children from socio-economically disadvantaged homes (reference category: settings with less than 10% of children)	Settings in top tertile of setting size (reference category: settings in bottom tertile)
Communicate with ECEC settings or primary schools about children making transitions			Ireland*	New Brunswick (Canada)*	Flemish Community (Belgium)*, Germany
Organise visits to the next ECEC setting or primary schools for children making transitions			Ireland*	Ireland*, New Brunswick (Canada)*	Flemish Community (Belgium)*, Germany
Hold meetings with staff across ECEC settings or primary schools	Germany	New Zealand** (+)			Germany
Offer in-service training sessions for the ECEC staff regarding transition issues				Flemish Community (Belgium)*	
Work with local authorities to develop transition programmes				Ireland*	
Provide activities for parents or guardians to understand the transition					Germany

* Estimates should be interpreted with caution due to a higher risk of non-response bias.

** Data only represent respondents included in the sample and not the population targeted by the survey. For more information, see Annex A.

Note: ECEC: early childhood education and care.

Source: OECD (2025), *TALIS Starting Strong 2024 Database*, Tables C.5.27, C.5.29, C.5.30 and C.5.31.

StatLink  <https://stat.link/wjbuhk>

Initial education and training and professional development programmes place less emphasis on preparing staff to support children's transitions

Planning and organising activities to facilitate children's transitions can be shaped by staff preparedness for such practices and recognition of their role for children's development. Supporting children's transitions to other ECEC settings or to primary schools is less commonly covered than other areas of training as part

of staff's initial education or training programme that prepared them to work with children (Table Staff.14 in OECD (2025^[8])). In most countries and subnational entities, around two-thirds of staff report receiving training in this area as part of their initial education.

Staff in some contexts are also less likely to have benefited from training in this area during their initial preparation. Staff working in private settings in New Brunswick (Canada), in centre-based settings in Israel, and in large settings in Ireland and Israel are less likely to report that supporting children's transitions was included in their initial education and training programmes (Tables C.5.32, C.5.33 and C.5.34). This is also the case for staff working with a majority of children under age 3 in the target group in Quebec (Canada) (Table C.5.35). In contrast, staff working with more children from socio-economically disadvantaged homes in New Brunswick (Canada) have more frequently covered support for children's transitions in their initial education or training (Table C.5.36).

Professional development activities can enable staff to acquire new knowledge and skills, yet few staff report having had training to support children's transitions as part of their most recent training activities (Table Staff.16 in OECD (2025^[8])). Only in Ireland and Israel do more than 50% of staff report that supporting children's transitions to other settings or to primary schools was included in their professional development activities in the year prior to the survey. Staff working in different contexts tend to have covered this topic in a similar way, with a few exceptions. Fewer staff in private not-for-profit settings in Ireland, in centre-based settings in Israel and staff working with a majority of children under age 3 in the target group in Quebec (Canada) report recent training in supporting children's transitions (Tables C.5.37, C.5.38, C.5.39 and C.5.40).

Limited participation in professional development may reflect a lack of perceived need in this area, particularly relative to other areas of professional development. Fewer than half of staff in settings for children under age 3 in participating systems report a moderate or high level of need for training in supporting children's transitions (Table Staff.19 in OECD (2025^[8])) and staff working in various contexts generally experience similar levels of need in this domain (Tables C.5.41, C.5.42, C.5.43, C.5.44 and C.5.45). In Germany, however, staff in non-integrated settings more frequently report training needs to support children's transitions than staff in integrated settings where such practices also tend to be more common.

Leaders of public settings and of settings serving more vulnerable children report greater professional development needs for collaborating with external actors in some systems

Leaders can drive the planning of activities to support transitions in their settings as these hinge on strong collaboration between ECEC settings, families and potentially other services that support children and families. In most systems, around half of leaders or more had participated in training covering collaboration with parents, other ECEC settings or primary schools, and with community services in the year prior to the survey (Table Leader.10 in OECD (2025^[8])). While collaborating with parents features often among leaders' professional development topics, collaborating with other settings and with community services were relatively less frequently covered in leaders' recent training in some systems. This is particularly the case in the Flemish Community of Belgium, where a large majority of leaders were trained in collaborating with parents in the year preceding the survey but fewer than 40% of them report recent training in collaborating with other settings or with community services.

In most systems, the topics covered in leaders' professional development activities focused on collaboration with external actors are consistent across different types of settings (Tables C.5.46, C.5.47, C.5.48, C.5.49 and C.5.50). Variations in training patterns between leaders of different settings are observed only in the two Canadian provinces: in New Brunswick, leaders in privately managed settings more often report recent training in collaborating with parents than those in publicly managed settings; in

Quebec, leaders in settings serving more children with special education needs report more recent training in collaboration with other services.

In contrast, leaders' professional development needs for collaboration with external actors tend to be more pronounced in specific contexts, and particularly in settings serving more vulnerable populations. Although this topic is not widely considered a top area for professional training needs relative to other areas (Table Leader.11 in OECD (2025^[8])), more leaders in publicly managed settings in Germany, Israel and New Brunswick (Canada) report collaboration with parents as a professional development need than those working in privately managed settings (Table C.5.51). In Germany, leaders in public and integrated settings are also more likely to report collaboration with other ECEC settings as a professional development need (Table C.5.52). In some systems, leaders of settings serving higher shares of vulnerable children also report stronger professional development needs for collaboration with external actors. In the Flemish Community of Belgium, leaders of settings with more children from socio-economically disadvantaged homes have greater needs for professional development in collaborating with parents while those working in similar settings in Israel report greater needs in collaborating with community services (Table C.5.53).

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Annex A. Technical notes on sampling, response rates and adjudication

Sampling procedures

The objective of the Starting Strong Teaching and Learning International Survey (TALIS Starting Strong) 2024 was to obtain a representative sample in each participating country or subnational entity of staff and leaders providing early childhood education and care (ECEC) for each level of ECEC (i.e. ISCED level 02 or settings for children under age 3) in which the country or subnational entity participated. The international sampling plan used a stratified two-stage probability sampling design. ECEC settings served as the first-stage units (primary sampling units), randomly selected from within strata. For countries and subnational entities with age-integrated ECEC systems that participated in the data collection for both pre-primary education (ISCED level 02) and settings for children under age 3, settings serving both age groups were randomly split between the two samples so that each setting could be selected for participation in only one level of ECEC. Staff were then randomly selected from the list of eligible staff within those settings, serving as secondary sampling units. A more detailed description of the survey design and its implementation can be found in the *TALIS 2024 Technical Report* (OECD, forthcoming^[1]).

Participating countries and subnational entities had the option to restrict the coverage of their national implementation of TALIS Starting Strong for reasons of practicality, safety or economy. However, they were encouraged to minimise such exclusions and ensure that their national survey population covered at least 95% of ECEC staff. National project managers were required to document the reasons for each exclusion.

Definition of early childhood education and care settings, leaders and staff

The international target population of TALIS Starting Strong restricts the survey to those staff and leaders who work in officially registered settings providing ECEC. Settings exclusively for children with special educational needs are deemed out of scope. For the ISCED level 02 target population, home-based settings (i.e. within the homes of the respective staff) are not considered to be part of the target population. Officially registered home-based settings are considered in-scope for the target population of settings for children under age 3.

Staff in pre-primary settings (ISCED level 02) include all persons working regularly in a pedagogical way, providing learning opportunities or care, with children of ISCED level 02. Staff for children under age 3 include all persons working regularly in a pedagogical way, providing learning opportunities or care, with children in this age group. Staff who provide learning opportunities for both target populations in their settings are included in the TALIS Starting Strong population for the age group for which their setting is sampled. There is no minimum cut-off for how much time staff need to be engaged at either level of ECEC.

The following types of staff are considered out of scope for TALIS Starting Strong 2024: temporary substitute educators (to replace staff on sick leave), staff on long-term leave (e.g. disability, sabbatical) who are not expected to be back working at the time of data collection, persons working as nannies or in informal arrangements, staff providing services exclusively within a child's home (e.g. home visiting),

volunteer persons who occasionally come in for a special activity, and auxiliary staff (e.g. cleaners, cooking staff, etc.) who do not interact regularly in a pedagogical manner with the children.

The leader at each setting (i.e. the person with the most responsibility for administrative, managerial and/or pedagogical leadership at the ECEC setting) was automatically selected for participation. At the time of sampling, if the leader was designated as also having staff duties (i.e. meeting the sampling definition of ECEC staff), s/he was assigned to participate using the main version of the combined questionnaire (CQM) in countries and subnational entities that used this version of the questionnaire (OECD, forthcoming^[2]). At the time of sampling, if the leader was the only staff member listed in an ECEC setting, s/he was assigned to participate using the short version of the combined questionnaire (CQS) in countries and subnational entities that used this version of the questionnaire.

Sample size requirements

For each level of ECEC, the minimum sample size was set at 180 ECEC settings and 1 200 staff members in total. In ECEC settings with eight or more eligible staff members, at least eight staff members were to be selected; in settings with fewer eligible staff members, all of them were to be asked to participate.

Participating countries and subnational entities could choose to augment their samples by selecting more settings, or by selecting more staff within each selected setting, or by increasing both. In some cases, because the average number of staff in ECEC settings was low, the number of settings sampled was increased.

Adjudication process

Adjudication is the process of determining whether the data released were “fit-for-use” as intended. The issues examined concerned, among others, adapting the questionnaire to national context, translation and verification, quality of the sampling frame, handling of out-of-scope and refusal units (i.e. staff and/or setting), within-setting sampling, data collection, data cleaning, the reports of quality observers, participation rates and overall compliance with the technical standards.

During the adjudication session, each individual dataset (i.e. one per level of ECEC per country or subnational entity) was submitted to the same examination. Leader/setting participation was adjudicated independently of staff data.

Once each survey process had been assessed, a recommended adjudication rating was formulated. While the rating was mostly dictated by the participation rate thresholds set in the TALIS 2024 Technical Standards (see Table A A.1 and Table A A.2), the adjudication committee at times improved the rating of a dataset if, after expert consideration, unique and favourable conditions were met (e.g. closeness to the threshold value and/or the non-response bias analysis report showing evidence for negligible bias risks).

To note, the adjudication rating is made at the ECEC system level. However, participation rates are just one potential source of non-response bias and potential non-response bias is specific to each statistical estimate from the survey data. Therefore, some estimates of systems with an adjudication rating of “good” might still have a high non-response bias; correspondingly, some estimates of systems with an adjudication rating of “poor” might still be reliable. For example, if staff with a particular characteristic systematically do not respond to a specific question in a system with a “good” rating, but that question is answered by all staff in a system with a “poor” rating, estimates based on that question may be more affected by non-response bias in the “good” system compared to the “poor” system. For more detailed information, please refer to the *TALIS 2024 Technical Report* (OECD, forthcoming^[1]).

At its January 2025 meeting in Paris, the TALIS 2024 Technical Advisory Group (TAG) recommended that data from all participating countries and subnational entities be weighted and displayed in tables, regardless of the adjudication ratings. The TAG further recommended clearly indicating to readers when data were rated as “insufficient,” due to the greater risk of non-response bias in these samples. TALIS Starting Strong 2024 data from New Zealand were deemed an exception to this general principle, although the TAG supported presenting these data with the caveat that they are not representative of the population targeted by the survey.

Based on these recommendations, countries and subnational entities with “insufficient” ratings are flagged (*) in tables and figures with the note: *Estimates should be interpreted with caution due to a higher risk of non-response bias*. Data from New Zealand are visually separated in tables and figures and are flagged (**) in tables, figures and the text with the note: *Data only represent respondents included in the sample and not the population targeted by the survey*. No distinctions are made in the report for data rated as “good”, “fair” or “poor”; more detailed implications of these ratings are described in the *TALIS 2024 Technical Report* (OECD, forthcoming^[1]).

Table A A.1. Adjudication rules for setting or leader data

Setting/leader participation before replacement	Setting/leader participation after replacement	Risk of non-response bias	Rating
≥75%	≥75%		Good
≥50% but <75%	≥75%		Fair
≥50% but <75%	≥50% but <75%	Low	Fair
≥50% but <75%	≥50% but <75%	High	Poor
<50%			Insufficient

Source: TALIS 2024 Technical Standard 3.26.

Table A A.2. Adjudication rules for staff data

Setting/leader participation before replacement	Setting/leader participation after replacement	Staff participation after setting replacement	Risk of staff non-response bias	Rating
≥75%	≥75%	≥75%		Good
≥75%	≥50% but <75%			Fair
≥50% but <75%	≥75%	≥75%		Fair
≥50% but <75%	≥75%	≥50% but <75%	Low	Fair
≥50% but <75%	≥75%	≥50% but <75%	High	Poor
≥50% but <75%	≥50% but <75%			Poor
<50%	≥75%			Poor
<50%	<75%			Insufficient

Source: TALIS 2024 Technical Standard 3.27.

Participation rates and adjudication ratings

Tables A A.3, A A.4, A A.5 and A A.6 present the participation rates and the adjudication rating per participating country and subnational entity, level of ECEC, and population (i.e. settings/leaders and staff). Detailed results of unweighted and weighted participation can be found in Annex G of the *TALIS 2024 Technical Report* (OECD, forthcoming^[1]).

Table A A.3. Settings for children under age 3: Leader participation and recommended ratings

Participating country or subnational entity	Number of participating leaders	Estimated size of leader population	Leader participation before replacement (%)	Leader participation after replacement (%)	Recommended rating
Flemish Community (Belgium)	125	5 327	34.9	53.4	Insufficient
Germany ¹	165	46 847	49.5	74.2	Poor
Ireland	183	2 154	39.6	59.5	Insufficient
Israel	289	5 953	77.2	85.5	Good
New Brunswick (Canada)	84	489	31.3	35.9	Insufficient
New Zealand ²	34	m	21.1	24.8	Insufficient
Norway	76	4 812	28.0	40.9	Insufficient
Quebec (Canada)	85	10 317	23.4	59.8	Insufficient

¹ The rating was defined as “poor” although the participation rate before replacement did not completely reach 50%.

² Due to low participation rates, a non-response adjustment was not implemented and the estimated population size, therefore, remains unknown.

Note: A setting was deemed a participating setting if the leader returned their questionnaire with at least one question answered.

Table A A.4. Settings for children under age 3: Staff participation and recommended ratings

Participating country or subnational entity	Number of participating settings	Number of participating staff	Estimated size of staff population	Setting participation before replacement (%)	Setting participation after replacement (%)	Staff participation in participating settings (%)	Overall staff participation (%)	Recommended rating
Flemish Community (Belgium)	128	499	16 765	35.8	55.3	83.6	46.2	Insufficient
Germany	167	876	310 220	50.5	76.0	87.8	66.7	Fair
Ireland	207	899	11 865	44.0	66.3	75.2	49.8	Insufficient
Israel	297	1 505	25 597	78.7	87.9	85.4	75.1	Good
New Brunswick (Canada)	88	275	2 345	34.7	38.6	85.4	33.0	Insufficient
New Zealand ¹	33	164	m	17.8	23.9	73.0	17.4	Insufficient
Norway	68	367	41 262	26.2	36.8	73.4	27.0	Insufficient
Quebec (Canada)	82	311	41 882	23.3	49.7	75.0	37.3	Insufficient

¹ Due to low participation rates, a non-response adjustment was not implemented, and the estimated population size, therefore, remains unknown.

Note: A setting was deemed a participating setting if at least 33% of the selected staff returned their respective questionnaires with at least one question answered.

Table A A.5. Pre-primary education (ISCED level 02): Leader participation and recommended ratings

Participating country or subnational entity	Number of participating leaders	Estimated size of leader population	Leader participation before replacement (%)	Leader participation after replacement (%)	Recommended rating
Flemish Community (Belgium)	158	2 288	62.7	83.2	Fair
Germany	138	50 860	45.2	70.3	Insufficient
Ireland	149	3 950	36.0	59.9	Insufficient
Israel	285	12 399	86.1	92.2	Good
New Zealand ¹	38	m	19.7	22.9	Insufficient
Norway	84	4 929	31.5	46.4	Insufficient

¹ Due to low participation rates, a non-response adjustment was not implemented and the estimated population size, therefore, remains unknown.
 Note: A setting was deemed a participating setting if the leader returned their questionnaire with at least one question answered.

Table A A.6. Pre-primary education (ISCED level 02): Staff participation and recommended ratings

Participating country or subnational entity	Number of participating settings	Number of participating staff	Estimated size of staff population	Setting participation before replacement (%)	Setting participation after replacement (%)	Staff participation in participating settings (%)	Overall staff participation (%)	Recommended rating
Flemish Community (Belgium)	164	1 143	21 469	66.3	86.3	89.4	77.2	Fair
Germany	142	810	456 372	47.2	72.1	82.2	59.3	Insufficient
Ireland	170	690	18 557	41.6	69.5	73.9	51.4	Insufficient
Israel	291	1 153	42 272	87.7	94.2	86.1	81.1	Good
New Zealand ¹	35	163	m	17.6	20.4	72.7	14.8	Insufficient
Norway	68	377	46 985	25.5	37.6	73.8	27.8	Insufficient

¹ Due to low participation rates, a non-response adjustment was not implemented and the estimated population size, therefore, remains unknown.

Note: A setting was deemed a participating setting if at least 33% of the selected staff returned their respective questionnaires with at least one question answered.

Notes regarding use and interpretation of the data

This section lists issues to be noted regarding the sampling or field operations that should be considered when interpreting the data reported for the following countries and subnational entities:

- **Flemish Community of Belgium**
 - For settings for children under age 3, settings without subsidy were excluded after the survey administration due to very low participation rates. They are not considered in the participation rate but contribute to the exclusion rate, which remained below 5% of staff.
- **Germany**
 - Home-based settings were excluded from the sample for settings for children under age 3, leading to an estimated exclusion rate of 6.5% of staff at this level of ECEC.
- **Ireland**

- For both levels of ECEC, replacement settings were contacted before the participation of the originally sampled setting was defined. Consequently, replacements participated although the original setting participated as well. These replacements were moved into separate strata and treated as self-representing. They do not contribute to participation rates.
- Home-based settings were excluded from the sample for settings for children under age 3. The exclusion rate remained below 5% of staff.
- **Israel**
 - Ultra-Orthodox settings did not participate in the survey at ISCED level 02 and were excluded after the survey administration. They are not considered in the participation rate but contribute to the exclusion rate, leading to an exclusion rate of 26.3% of pre-primary settings; the resulting staff exclusion rate is unknown.
- **New Zealand**
 - *Kōhanga Reo* (Māori language immersion environments for children and families) did not participate in the survey at ISCED level 02 and were excluded after the survey administration, leading to an estimated staff exclusion rate of 12.8% for pre-primary staff. For settings for children under age 3, in addition to *Kōhanga Reo*, free kindergartens and playcentres did not participate in the survey, leading to an overall estimated staff exclusion rate of 29.8%.
- **Norway**
 - Home-based settings were excluded from the sample for settings for children under age 3. The exclusion rate remained below 5% of staff.
- **Quebec (Canada)**
 - Due to a high turnover in home-based childcare services during the time of recruitment for TALIS Starting Strong, notably attributable to demographic factors such as retirement, it is important to note that results for leaders/settings represent settings that were open in September 2022 and remained open at the beginning of 2024: At the time of data collection, 32% of home-based settings that had been selected for the sample were ineligible, mainly because they were closed.

References

- OECD (forthcoming), *Teaching and Learning International Survey (TALIS) 2024 Technical Report*, OECD Publishing, Paris, forthcoming. [1]
- OECD (forthcoming), *Teaching and Learning International Survey (TALIS) 2024 User's Guide*, OECD Publishing, Paris, forthcoming. [2]

Annex B. Technical notes on analyses in this report

Use of staff and setting weights

The statistics presented in this report were derived from data obtained through samples of settings, setting leaders and staff (see Annex A). For these statistics to describe a country or subnational entity they need to reflect the entire population from which they were drawn and not merely the sample used to collect them. Survey weights must, therefore, be used to obtain design-unbiased estimates of population or model parameters.

Final weights allow the production of country- or subnational entity-level estimates from the observed sample data. The estimation weight indicates how many population units are represented by a sampled unit. The final weight is the combination of many factors reflecting the probabilities of selection at the various stages of sampling and the response obtained at each stage. Other factors may also come into play, as dictated by special conditions to maintain the unbiasedness of the estimates (e.g. adjustment for staff working in more than one centre). A detailed description of the sampling and weighting procedures can be found in the *TALIS 2024 Technical Report* (OECD, forthcoming^[1]).

Data from New Zealand were weighted differently. Due to sparse response that led to unanticipated exclusions for some segments of the target population, these samples (both ISCED 02 and settings for children under age 3) cannot be adequately adjusted through weighting to represent early childhood education and care (ECEC) settings and staff in New Zealand overall. Nonetheless, staff and setting weights were applied to adjust for different probabilities of selection into the sample, but not to make the samples representative of the overall target population for New Zealand. Thus, estimates presented in this volume for New Zealand only represent respondents included in the sample and not the population targeted by the survey.

Statistics in this report that represent settings and statistics based solely on leader responses were estimated using leader weights (LEADERWGT). Leader weights are used to make the sample representative of the population of ECEC settings in each country and subnational entity (with the exception of New Zealand); results are not representative of the population of leaders. Results that represent staff, which are based only on responses from staff or on responses from staff and leaders (i.e. responses from setting leaders were merged with staff responses), were estimated using staff weights (STAFFWGT). Staff weights are used to make the sample representative of the population of ECEC staff in each country and subnational entity (with the exception of New Zealand).

Coverage of the sample

Not all respondents answer every question, either because they omit a response or give an invalid response. Coverage is defined as the weighted percentage of respondents who provide a valid answer to a given question in the survey, regardless of their answer. Every table has coverage daggers to indicate the level of coverage: no symbol means at least 75% of the expected population was covered; one dagger

(†) means at least 50% but less than 75% of the expected population was covered; and a double-dagger (‡) means less than 50% of the target population was covered.

Coverage is calculated based on the section of the sample that could answer the relevant question in the survey. Some respondents did not have the possibility to answer some questions due to filters in the questionnaire (i.e. the question being not logically applicable) or to the use of different versions of the questionnaire targeted to different types of setting leaders and staff (see the *TALIS 2024 Technical Report* for more details (OECD, forthcoming^[11])). These respondents were excluded from coverage and estimate calculations. In addition, respondents in home-based settings were excluded from coverage and estimate calculations when the analysis was not appropriate for this type of setting. These exclusions are indicated in notes below the relevant tables in Annex C.

Standard errors and significance tests

Standard errors

The statistics in this report represent estimates based on samples of staff and settings rather than on values that could be calculated if every staff member and setting leader in every country or subnational entity had answered every question. Consequently, it is important to measure the degree of uncertainty of the estimates. In the Starting Strong Teaching and Learning International Survey (TALIS Starting Strong) 2024, each estimate has an associated degree of uncertainty that is expressed through a standard error. The reported standard errors were computed with a Balanced Repeated Replication (BRR) method, which provides a simple way of producing a consistent estimator that takes into account the sampling strategies used in the survey (a detailed description can be found in the *TALIS 2024 Technical Report* (OECD, forthcoming^[11])). The use of confidence intervals provides a way to make inferences about the population statistics in a manner that reflects the uncertainty associated with the sample estimates. From an observed sample statistic and assuming a normal distribution, its corresponding confidence interval at the 95% level can be constructed as the estimated parameter, ± 1.96 times the associated standard error. In this way, it can be inferred that the corresponding parameter for the population would lie within the confidence interval in 95 out of 100 replications of the measurement on different samples drawn from the same population.

Differences between sub-groups

Differences between sub-groups either for staff (e.g. teachers and assistants) or setting characteristics (e.g. settings with a high concentration of children from socio-economically disadvantaged homes and settings with a low concentration of children from socio-economically disadvantaged homes) were tested for statistical significance. All differences marked in bold in the data tables of this report are statistically significantly different from 0 at the 95% level. This means that differences were labelled as statistically significant when a difference of that size or greater, in either direction, would be observed less than 5% of the time in the sample estimates, if there was actually no difference in the corresponding population values. In the case of differences between sub-groups, standard errors were calculated by taking into account that the two sub-samples are not independent, with the help of the BRR method.

Statistics based on regressions

Country- and subnational entity-specific regression analyses were performed to examine the associations between different variables. TALIS Starting Strong 2024 used a multivariable regression model for linear and logistic regression analyses. The primary goal was to accurately estimate the independent contribution of each predictor while adjusting for potential confounders. This model allows expressing the outcome as a function of all relevant variables simultaneously – where each coefficient (or odds ratio, OR) represents

the expected change in the outcome (or in the likelihood of the outcome rather than the reference category, for ORs) when that predictor increases by one unit (or takes the indicated value rather than the reference category, for categorical variables), holding all other variables constant. Regression analyses presented in this report handle missing data by listwise deletion. The percentage of the sample on which the regression is estimated is indicated by the coverage signs presented in the tables (see above for details).

Two types of models were used in this volume. Multiple linear regression was used in cases where the dependent (or outcome) variable was considered continuous, such as scales. Binary logistic regression was employed when the dependent (or outcome) variable was a binary categorical variable, such as a high versus a low share of children from socio-economically disadvantaged homes.

Linear regression models

Linear regression models were used where the dependent (or outcome) variable was continuous. The models were specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p + \epsilon$$

where Y is the predicted variable, $X_1, X_2, \dots, X_p$ is the set of regressors, $\beta_1, \beta_2, \dots, \beta_p$ is the set of the coefficients that measure the strength of association and ϵ is an error term. Coefficients presented in the tables are unstandardised, were estimated using the Ordinary Least Squares method and represent the expected change in the Y variable with a change in the predictor, holding all other predictors constant. The magnitude of the unstandardised coefficient linking a predictor and an outcome in a linear regression is referred to as the “strength of association”. If the predictor is a categorical or binary variable, the coefficient represents the change in Y associated with being in the specified category rather than the reference category. If the predictor is a continuous variable, the coefficient represents the change in Y associated with a one-unit change in the predictor. Associated standard errors were calculated using the BRR method. Coefficients were tested for difference from 0 at the 95% confidence level using a Student’s t -test. Coefficients are indicated to be statistically significantly different from 0 when an estimate of that size or greater, in either direction, would be observed less than 5% of the time in the sample estimates, if the corresponding population value were actually 0.

Logistic regression models (odds ratios)

Logistic regression (logit) models were used where the dependent (or outcome) variable was binary. The models were specified as follows:

$$\text{Logit}(\pi(y)) = \ln\left(\frac{\pi(y)}{1 - \pi(y)}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p + \epsilon$$

where Y is the predicted variable, with probability $\pi(y)$ for outcome y instead of the reference category, $X_1, X_2, \dots, X_p$ is the set of regressors, $\beta_1, \beta_2, \dots, \beta_p$ is the set of the coefficients that measure the strength of association and ϵ is an error term. Associated standard errors were calculated using the BRR method.

In the tables, logit coefficients are not reported directly. Instead, ORs are presented. The OR is a measure of the relative likelihood of a particular outcome across two groups. In this case, ORs are equivalent to the ratio between the probability of observing outcome y instead of the reference category when a predictor takes on a particular value instead of the reference category and the probability of observing the same outcome in Y when the predictor does not take that value. Given that p_{XY} is the probability of observing a given outcome for Y given a particular value for X , the OR can be defined as follows:

$$OR = \frac{p_{11}/p_{12}}{p_{21}/p_{22}}$$

where p_{11}/p_{12} represents the “odds” of observing the indicated outcome (1) rather than the reference category (2) in Y, when X takes on its indicated outcome (1); and p_{21}/p_{22} represents the “odds” of observing the outcome (1) rather than the reference category (2) in Y, when X takes on the value of its reference category (2).

If the predictor is a categorical or binary, the OR represents the change in likelihood of Y taking on value y rather than the reference category associated when the predictor takes the specified value rather than its reference category. If the predictor is continuous, the coefficient represents the change in the likelihood of Y taking on value y associated with a one-unit change in the predictor.

In this report, the OR is obtained by applying an exponential transformation to the estimated logit coefficient. Throughout the report, ORs were calculated as the exponential of the logit coefficient, so that for any regressor j and its associated coefficient β_j , its OR is:

$$OR_j = e^{\beta_j}$$

Since this transformation is non-linear, statistical inference is performed on the original coefficient rather than on the OR itself. Hypothesis tests (Student's t-tests) use the coefficient estimates and their standard errors. P-values are computed directly from the original coefficients and standard errors, using the inverse of the normal cumulative distribution function. This ensures accurate statistical inference and avoids errors that may arise from testing transformed values like ORs.

The same procedure can be applied to all predictors individually, with no modifications needed for each variable. The resulting p-value reflects the probability of observing an estimate of that size or greater, in either direction, if the true population logit coefficient were 0 (or the corresponding population OR were 1). In this report, ORs are indicated as statistically significant when an estimate of their associated logit coefficient of that size or greater, in either direction, would be observed less than 5% of the time in the sample estimates, if the corresponding population value for the logit coefficient was actually 0. This is equivalent to an associated p-value of less than 0.05.

Predictors used in regressions

For each regression model, a consistent set of predictors (detailed below) and a more restricted set of predictors specific to the analytical goals of each model were included. The selection of predictors was grounded in substantive theory and prior research. This helped avoid overfitting and ensured that the included predictors have a meaningful interpretation. Multicollinearity was assessed by estimating bivariable variance inflation factors on the set of predictors used in all regressions. This analysis confirmed that the model's independent effects are estimable with acceptable precision.

- **Level of formal education:** Based on the highest level of formal education completed by staff (variable: SS2G11). It was grouped into three categories: secondary education or below (ISCED level 3 or below), post-secondary non-tertiary or short-cycle tertiary education (ISCED levels 4 or 5), and bachelor's degree or equivalent or higher (ISCED level 6 or higher; used as the reference category).
- **Experience:** Based on total experience as ECEC staff (variable: SS2G08B). It was grouped into three categories: three years or less, between four and nine years, and ten years or more (used as the reference category).
- **Employment status:** Based on the contract agreement staff have to work at their ECEC setting (variable: SS2G05). It was grouped into two categories: permanent employment and others (which encompasses fixed-term, self-employed or no employment contract; used as the reference category).

- **Staff role:** Based on the category that staff indicated best represents their role in general when working at their ECEC setting (variable: SS2G03). It was grouped into two categories: teacher or ECEC setting leader and all other staff roles (which encompasses assistants, staff for individual children, staff for special tasks, interns and others; used as the reference category).
- **Setting location:** Based on the ECEC setting's location (variable: SL2G13). It was grouped into two categories: a municipality with more than 15 000 people and a municipality with 15 000 people or less (used as the reference category).
- **Type of management and profit status:** Based on the organisation responsible for the day-to-day management of the ECEC setting (SL2G19) and its profit status (SL2G21), the variable was grouped into three categories: publicly managed settings, privately managed not-for-profit settings, and privately managed for-profit settings. The privately managed for-profit category is used as the reference group in the regression analysis, with the other two categories capturing differences relative to this baseline. This variable is included in regression models for centre-based settings only.
- **Profit status:** Based on whether the ECEC setting is a for-profit or a not-for-profit organisation (SL2G21), the variable was grouped into two categories: not-for-profit and for-profit settings, with for-profit used as the reference category in the regression analysis. This variable is included in regression models where setting type (see below) is included as a predictor.
- **Setting type:** Based on whether the ECEC setting is home-based or centre-based (variable: settingtype_sq), the variable was grouped into two categories: home-based and centre-based settings, with centre-based used as the reference category in the regression analysis. This variable is included only in regression models where setting type is included as a predictor.
- **Setting size (or target group size) tertiles:** The position of the ECEC setting in the national distribution of ECEC setting size, based on the number of children enrolled in the ECEC setting (variable: SL2G25) at the setting level, or on the number of children in the target group (variable: SS2G35) at the target group level (relevant tables specify whether the setting size or target group size is used). Depending on the outcome, this variable refers either to the number of children enrolled in the ECEC setting or the number of children in the target group. The first [bottom] tertile was used as the reference category. Coefficients are, therefore, a comparison to the smallest ECEC settings (or target groups) in each country or subnational entity.
- **Number of staff per child in the setting (or target group) tertiles:** The position of the ECEC setting in the national distribution of number of staff per children, based on the sum of staff in the setting (based on variable: SL2G22) and the number of children enrolled in the setting (variable: SL2G25) at the setting level, or on the sum of staff in the target group (based on variable: SS2G34) and the number of children in the target group (variable: SS2G35) at the target group level (relevant tables specify whether the number of staff per child in the setting or target group is used). Depending on the outcome, this variable refers either to the number of staff per children in the ECEC setting or the number of staff per children in the target group. The first [bottom] tertile was used as the reference category. Coefficients are thus a comparison to the ECEC settings (or target groups) where there are the fewest number of staff per child in each country or subnational entity. This variable is included in regression models for centre-based settings only.

Use of complex variables

Importance of social and emotional skills for children's future development

The variable of importance of social and emotional skills for children's future development is based on the question on the skills or traits staff consider to be important to develop in children to prepare them for the

future (variable: SS2G25E, SS2G25F, SS2G25H, SS2G25I, SS2G25J and SS2G25L). It is derived from six dichotomous variables indicating whether staff reported that specific skill or trait as important to develop in children. The resulting variable is a count with values ranging from 0 to 6, representing the total number of skills or traits for which a value of 1 was reported. A staff member is assigned a value of 0 when none of the reported non-missing skills or traits were coded as 1. Higher values indicate a greater importance staff placed on the development of a range of skills. The variable is coded as missing when responses to all six component variables are missing.

Setting (or target group) size

Tertiles refer to 3 groups comprised approximately between the 1st and 33rd percentiles (first [bottom] tertile), the 34th and the 66th percentiles, and the 67th and 100th percentiles, in the weighted distribution of setting (or target group) size. Setting size is the number of children enrolled in the ECEC setting (variable: SL2G25). Target group size is the number of children in the target group (variable: SS2G35). Tertiles were calculated within each country and subnational entity, meaning that the values used in each percentile vary for each country and subnational entity. These tertiles are of **unequal size** but of **equal value**, meaning that they group all observations with the same value in the same bin (typically the lower one). Therefore, the number of (weighted) observations in each bin is different, but all observations with the same value of setting (or target group) size are grouped in the same bin. For the setting size tertiles in Quebec (Canada), a further recoding was done, grouping all settings with less than 10 children enrolled, and dividing the rest of the settings (ranging from 29 to 191 enrolled children) into 2 similar size groups. This procedure creates “tertiles” that are of very unequal (weighted) size, but have a clear cut in values, which is fit for analytical purposes.

Number of staff per child in the setting (or target group)

Tertiles refer to three groups comprised approximately between the 1st and 33rd percentiles, the 34th and the 66th percentiles, and the 67th and 100th percentiles, in the weighted distribution of staff per child in the setting (or target group). Staff per child in the setting is the number of staff working in the setting (sum of items A-D of variable SL2G22) divided by the number of children enrolled in the ECEC setting (variable: SL2G25). Staff per child in the target group is the number of staff in the target group (the sum of items A-D of variable SS2G34) divided by the number of children in the target group (variable: SS2G35). Tertiles were calculated within each country and subnational entity, meaning that the values used in each percentile vary for each country and subnational entity. These tertiles are of **unequal size** but of **equal value**, meaning that they group all observations with the same value in the same bin (typically the lower one). Therefore, the number of (weighted) observations in each bin is different, but all observations with the same value of setting (or target group) size are grouped in the same bin.

Proportions of children with various characteristics in the setting (or target group)

Proportion variables were created to represent the share of children with specific characteristics (eight different characteristics captured in SL2G27a-h) relative to the total number of children in the setting (SL2G25) or the share of children with specific characteristics (five different characteristics captured in SS2G36a-e) relative to the total number of children in the target group (SS2G35). Each proportion was calculated as $(SL2G27x/SL2G25) \times 100$ for the setting and $(SS2G36x/SS2G35) \times 100$ for the target group. Values resulting from dividing by zero or exceeding 125% were set to missing. The threshold of 125% was chosen instead of 100% because, during the cleaning process, the interrelation between the pairs of variables was intentionally relaxed to retain as many valid values as possible. Categorical dummy variables referring to the proportion of children under age 3 in the setting (or target group) were then generated from the proportions, coded as 0 for less than 10% and 1 for 10% or more or coded as 0 for less than 60% and

1 for more than 60%. Specific characteristics could overlap, meaning a child could be counted in more than one category.

Type of management and profit status

The categorical variable “type of management and profit status” was derived to represent the combined classification of management type and profit status for each setting (SL2G19 and SL2G21). Three categories were generated: publicly managed settings, privately managed for-profit settings and privately managed not-for-profit settings. Settings were classified as publicly managed regardless of their profit status if the leader indicated public management in SL2G19.

Use of scales

Several scales are used in this report, in particular in regression analyses. TALIS Starting Strong 2024 scales were constructed using the same international model parameters to be statistically equivalent across countries and subnational entities, facilitating scale score comparability across ECEC systems. In general, scale scores created for TALIS Starting Strong 2024 can be used in different types of analyses, including comparisons of country and subnational entity means for each individual scale.

TALIS Starting Strong 2024 scale scores are standardised to have a standard deviation of 2 across all education systems participating in the survey. . A value of 10 corresponds to the item mid-point value of the response scale. A detailed description of the construction and validation of TALIS Starting Strong 2024 scales can be found in Chapter 11 of the *TALIS 2024 Technical Report* (OECD, forthcoming^[11]).

Barriers to structural quality: Adequacy of physical resources

The scale of “barriers to structural quality: adequacy of physical resources” (S2LSQPRS) was constructed using leaders’ responses (“not at all”, “to some extent”, “quite a bit”, “a lot”) to four statements on issues with the availability of physical resources that hinder the setting’s capacity to provide a quality environment for children’s development, well-being and learning (SL2G42A, SL2G42B, SL2G42C and SL2G42D): “Shortage or inadequacy of play or learning materials (e.g. picture books, building blocks, paint)”; “Shortage or inadequacy of indoor space”; “Shortage or inadequacy of outdoor play space”; and “Shortage or inadequacy of digital resources and tools”. Higher scores on this scale indicate greater perceived barriers to structural quality related to the adequacy of physical resources.

Child-centred planning

The scale of “child-centred planning” (S2CCAFL) was constructed using staff responses (“not at all”, “once a week”, “a few times a week”, “once a day”, “more than once a day”) to four statements about how frequently they used the following practices in their work during the most recent complete calendar week (SS2G32D, SS2G32E, SS2G32F and SS2G32G): “Intentionally organised the <classroom/playgroup/group> to facilitate children’s exploration and play”; “Planned activities designed to allow children to take the initiative”; “Involved children in making plans for the day”; and “Adapted daily activities in response to children’s natural rhythms (e.g. hunger, fatigue)”. Higher scores on this scale indicate a greater frequency of use of child-centred approaches to planning.

Facilitating emotional development

The scale of “facilitating emotional development” (S2PREMR) was constructed using staff responses (“not at all”, “once a week”, “a few times a week”, “once a day”, “more than once a day”) to three statements about how frequently they used the following practices in their work during the most recent complete

calendar week (SS2G33A, SS2G33B and SS2G33D): “Talked with children about feelings”; “Helped children understand their feelings (e.g. when they are excited)”; and “Helped children express their feelings”. Higher values on this scale reflect more frequent activities to facilitate children’s emotional development.

Facilitating language development

The scale of “facilitating language development” (S2PRLANR) was constructed using staff responses (“never”, “rarely”, “occasionally”, “often”, “always”) to five statements which apply to their work in the target group at their ECEC setting (SS2G39A, SS2G39B, SS2G39C, SS2G39D and SS2G39F): “I encouraged children to lead conversations”; “I asked supportive questions to encourage children to give longer explanations”; “I supported children to express their ideas by asking them questions”; “I rephrased or repeated statements to make sure I understood the children”; and “I used words or phrasing that was new to children”. Higher scores on this scale reflect more activities aimed at facilitating children’s language development.

Facilitating literacy development

The scale of “facilitating literacy development” (S2PROLIR) was constructed using staff responses (“not at all”, “once a week”, “a few times a week”, “once a day”, “more than once a day”) to seven statements about how frequently they used the following practices in their work during the most recent complete calendar week (SS2G29A, SS2G29B, SS2G29D, SS2G29E, SS2G29F, SS2G29G and SS2G29H): “Played word games with the children”; “Read books to children”; “Encouraged pre-verbal children to point to pictures when looking at a book”; “Sang songs with or to the children”; “Engaged children in activities that helped them pick out sounds in words (e.g. phonics games)”; “Used synonyms for words to help explain their meaning when talking with children”; and “Used activities for children to make marks (e.g. finger painting, pressing into dough/playdough)”. Higher scores on this scale reflect more frequent activities aimed at facilitating children’s literacy development.

Facilitating numeracy development

The scale of “facilitating numeracy development” (S2PRONUR) was constructed using staff responses (“not at all”, “once a week”, “a few times a week”, “once a day”, “more than once a day”) to five statements about how frequently they used the following practices in their work during the most recent complete calendar week (SS2G30A, SS2G30B, SS2G30C, SS2G30D and SS2G30F): “Used sorting activities by shape or colour”; “Played number games”; “Sang songs with numbers”; “Helped children to use numbers or to count”; and “Encouraged children to measure items (e.g. while cooking or building with blocks)”. Higher values on this scale indicate more frequent engagement in activities that support children’s numeracy development.

Facilitating prosocial behaviour

The scale of “facilitating prosocial behaviour” (S2PRSOC) was constructed using staff responses (“not at all”, “once a week”, “a few times a week”, “once a day”, “more than once a day”) to four statements about how frequently they used the following practices in their work during the most recent complete calendar week (SS2G31A, SS2G31B, SS2G31C and SS2G31D): “Encouraged sharing amongst children”; “Encouraged children if they helped each other”; “Encouraged children playing in small groups to include other children”; and “Encouraged children if they comforted each other”. Higher values on this scale indicate a higher frequency of activities that facilitate children’s prosocial behaviour.

Level of stress and its impact on staff well-being

The scale of “level of stress and its impact on staff well-being” (S2STRESS) was constructed using staff responses (“not at all”, “to some extent”, “quite a bit”, “a lot”) to four statements about their experience as an <ECEC staff> at their ECEC setting (SS2G46A, SS2G46B, SS2G46C and SS2G46D): “I experience stress in my work”; “My job leaves me time for my personal life”; “My job negatively impacts my mental health”; and “My job negatively impacts my physical health”. Higher scores reflect greater perceived stress (and less perceived well-being).

Satisfaction with work at this ECEC setting

The scale of “satisfaction with work at this ECEC setting” (S2JOBSAR) was constructed using staff responses (“strongly disagree”, “disagree”, “agree”, “strongly agree”) to four statements about their experience as an ECEC staff at their ECEC setting (SS2G45C, SS2G45E, SS2G45F and SS2G45G): “I enjoy working at this <ECEC setting>”; “I am satisfied with the support that I receive from parents or guardians in this <ECEC setting>”; “I would recommend this <ECEC setting> as a good place to work”; and “I would like to change to another <ECEC setting> if that were possible”. Higher scores indicate greater satisfaction with work at the ECEC setting.

Secondary data sources

OECD Education at a Glance

Figures 2.1, 2.2, 2.4 and 2.5 rely on data from the OECD Education at a Glance (EAG) publication. EAG is a source of data on the state of education for OECD Member, partner and accession candidate countries. It has been produced annually since 1997 and covers indicators on the output of educational institutions; the impact of learning; access; participation and progression in education; investment in education; and teachers, the learning environment and the organisation of schools. Data from EAG used in the TALIS Starting Strong 2024 thematic report on settings for children under age 3 were taken from the 2024 and 2025 editions of EAG.

Figure 2.1 shows enrolment rates in ECEC programmes classified as ISCED 01 of children under age 3 by country from EAG 2025 Table B1.2 (the latest data available for this indicator). For most countries, data cover enrolment rates in 2013 and 2023. However, the year of reference for the enrolment rates or data source differ for some countries:

- For Türkiye, the year of reference is 2014 instead of 2013. The data source is EAG from the OECD Data Explorer, last updated in 2025 (<https://data-explorer.oecd.org/s/3og>).
- For the OECD average, Colombia and Hungary, the year of reference is 2015 instead of 2013. The data source is EAG from the OECD Data Explorer, last updated in 2025 (<https://data-explorer.oecd.org/s/3og>).
- For Ireland, the year of reference is 2017 instead of 2013. The data source is EAG from the OECD Data Explorer, last updated in 2025 (<https://data-explorer.oecd.org/s/3og>).
- For Greece, the year of reference is 2019 instead of 2023. The data source is EAG from the OECD Data Explorer, last updated in 2025 (<https://data-explorer.oecd.org/s/3og>).
- For the Flemish Community of Belgium, data for 2023 come from national sources (www.opgroeien.be; accessed on 23 April 2026) and might not be fully comparable with data for other countries.

Figure 2.2 shows enrolment rates in ECEC programmes (ISCED 01 and other ECEC services) by age and by country from EAG 2025 Table B1.1 (the latest data available for this indicator). However, the data source, indicator or year of reference differ for some countries:

- For Austria, the data on enrolment in other registered ECEC services (outside the scope of ISCED 0) differs for 2-year-olds – it includes children under the age of 2, and for 3-year-olds – which includes children aged 3-5.
- For the Flemish Community of Belgium and Quebec (Canada), the year of reference is 2024 instead of 2023. Data come from national sources and might not be fully comparable with data for other countries (data for the Flemish Community of Belgium come from www.opgroeien.be [accessed on 23 April 2026], and for Quebec (Canada), see Annex A (OECD, 2025^[2])).
- For Canada, early childhood education includes only ISCED 01 programmes for ages 2 and below.

Figure 2.4 shows the total expenditure and government expenditure on early childhood education per child for ISCED 01 programmes by country in 2022 from EAG 2025 Table C2.1. The figure is based on expenditure data in equivalent USD converted using purchasing power parities (PPPs) for GDP.

Figure 2.5 shows the average annual change in total expenditure on early childhood and development per child between 2015 and 2021 for ISCED 01 programmes by country from EAG 2024 data (sourced from the OECD Data Explorer <https://data-explorer.oecd.org/s/4et>; accessed on 23 April 2026). This figure is based on expenditure data in equivalent USD converted using PPPs, between 2015 and 2021, across OECD countries. Data refer to financial year 2021 and are based on the UNESCO, OECD and Eurostat (UOE) data collection on education statistics administered by the OECD in 2023 (for details, see *Education at a Glance 2024 Sources, Methodologies and Technical Notes* (OECD, 2024^[3])).

For more information, see OECD (2024^[4]; 2025^[5]), and *Sources, Methodologies and Technical Notes* (OECD, 2024^[3]; 2025^[6]), and the *Handbook for Internationally Comparative Education Statistics* (OECD, 2017^[7]) for definitions.

Eurostat European Union Statistics on Income and Living Conditions

Figure 2.3 relies on data from Eurostat's European Union Statistics on Income and Living Conditions (EU-SILC), an instrument that collects comparable cross-sectional and longitudinal microdata on income distribution, poverty and social exclusion, as well as policies on poverty and living conditions. The data used in the TALIS Starting Strong 2024 thematic report on settings for children under age 3 referring to 2023 correspond to EU-SILC 2024 for all countries, except Germany (2022) and Switzerland (2021).

Figure 2.3 shows data on inequalities in ECEC participation by income tertile. Income based on EU-SILC data is measured as equivalised disposable household income (variable: EQ_INC): the disposable (post-tax and transfer) income of the household divided by the number of household members in equivalised adults (using the OECD equivalence scale). Disadvantaged children refer to children who are in a household in the lowest tertile of income; advantaged children are children who are in a household in the highest tertile of income. The socio-economic gap is the difference in value for advantaged and disadvantaged children.

Figure 2.3 relies on data on participation in regulated centre-based and home-based ECEC. Regulated centre-based and home-based ECEC (variables: RL010, RL020, RL040) refers to children using regulated centre-based services (e.g. nurseries or day care centres and preschools, both public and private), organised family day care, and care services provided by (paid) qualified childminders organised and controlled by a structure, regardless of whether the service is registered or ISCED-recognised.

For more information, see the variable descriptions in the scientific use files of the EU-SILC 2024 data release (Eurostat, 2024^[8]). The responsibility for all conclusions drawn from the data lies entirely with the authors.

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- OECD (forthcoming), *Teaching and Learning International Survey (TALIS) 2024 Technical Report*, OECD Publishing, Paris, forthcoming. [1]

Annex C. List of tables available online

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Annex D. List of TALIS Starting Strong 2024 contributors

TALIS Starting Strong is a collaborative effort, bringing together expertise from participating countries and subnational entities that share an interest in developing a survey project to inform their policies about the early childhood education and care (ECEC) workforce and quality of provision. This report is the product of collaboration and co-operation among many stakeholders and contributors.

In particular, the co-operation of staff and leaders in the participating ECEC settings has been crucial in ensuring the success of TALIS Starting Strong. Engagement with bodies representing teachers (Education International) and regular briefings and exchanges with the Trade Union Advisory Council (TUAC) at the OECD have been very important in the development and implementation of TALIS Starting Strong.

The Informal Group on TALIS Starting Strong, a sub-group of the TALIS Governing Board, has, in the context of OECD objectives, driven the development of the project and its policy objectives. This includes the objectives of the analysis and reports produced, the conceptual framework and the development of the TALIS Starting Strong questionnaires. The Informal Group on TALIS Starting Strong has also overseen the implementation of the survey and the preparation of this report.

Participating countries and subnational entities implemented TALIS Starting Strong at the national or subnational level at national project centres through, among others, national project managers (NPMs), national data managers (NDMs) and national sampling managers (NSMs), who were subject to rigorous technical and operational procedures. The NPMs played a crucial role in helping to secure the co-operation of ECEC settings, to oversee the national adaptation, translation and validation of the questionnaires, to manage the national data collection and processing and to verify the results from TALIS Starting Strong. The NDMs co-ordinated data processing at the national or subnational level and liaised in the cleaning of the data. The NSMs were responsible for implementing TALIS Starting Strong, respecting sampling procedures and other rigorous technical and operational procedures. In addition to the participating countries and subnational entities, the United States contributed to the development of the questionnaires.

A Questionnaire Expert Group (QEG) was established to translate the policy priorities into questionnaires to address the policy and analytical questions that had been agreed by the Informal Group on TALIS Starting Strong. A Technical Advisory Group (TAG) was assembled to advise during the decision-making process for technical or analytical issues. A group of subject-matter experts and analysts were also critical in the analytical phase and drafting of the initial reports.

The co-ordination and management of implementation at the international level was the responsibility of the appointed contractors, the International Association for the Evaluation of Educational Achievement (IEA), its consortium members, cApStAn and RAND Europe AISBL. The TALIS Starting Strong Consortium included staff from the IEA offices in Amsterdam and Hamburg, cApStAn and RAND Europe AISBL.

IEA Hamburg was responsible for the overall survey planning, survey administration, the international data management, item analyses and scaling for the TALIS core. IEA Amsterdam was responsible for overseeing the verification of the translation and for the implementation of the international quality control programme. The sampling unit at the IEA Hamburg, developed the sampling plan, advised countries and subnational entities on its application, calculated the sampling weights and advised on the calculation of

sampling errors. RAND Europe AISBL managed the development of the survey instruments and conceptual framework. cApStAn linguistic quality control, Brussels Belgium, was responsible for organising and implementing the translation verification process for all administered languages.

The OECD Secretariat had overall responsibility for managing the project, monitoring its implementation on a day-to-day basis and serving as the secretariat of the Informal Group on TALIS Starting Strong.

List of TALIS Starting Strong 2024 Contributors

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Building Quality Education and Care for Children under Three

Further Results from TALIS Starting Strong 2024

The first three years of children's lives represent a sensitive period of rapid growth. The Early Childhood Education and Care (ECEC) sector for children under age 3 has expanded, driven by the need to support parents' employment and growing recognition of the importance of ECEC for children's development. This expansion has relied on different types of provision, including private and home-based ones. As a result, ECEC systems for children under age 3 are often fragmented, creating a risk of uneven quality across the sector.

This thematic report draws on data from TALIS Starting Strong 2024 to examine how to achieve more consistent and stronger ECEC quality for children under age 3 in the context of expanding enrolment to a broader, more diverse group of children. The policy context, governance and key features of ECEC provision for children under age 3 are considered. The report explores how differences across types of provision and providers shape children's daily experiences, the resources available and staff working conditions. TALIS Starting Strong 2024 data inform strategies to reduce quality gaps and support continuous improvement in ECEC for children under age 3.



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