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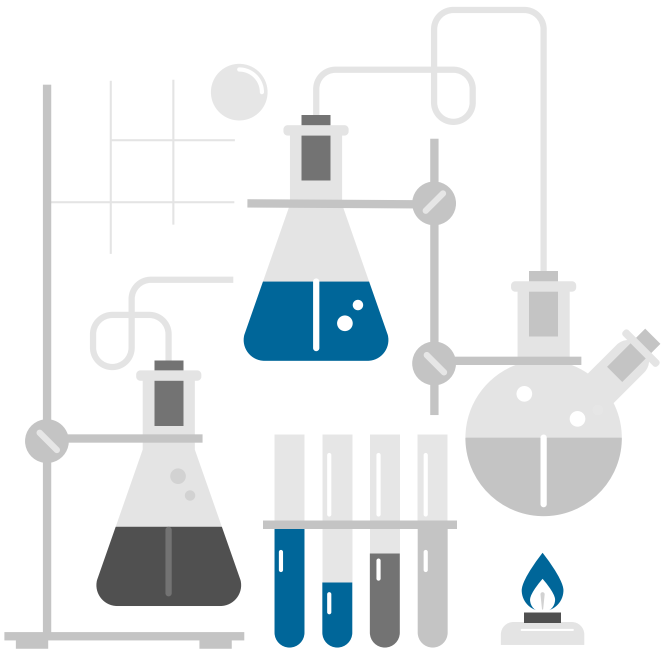
Educational Research Centre

PISA 2025: Performance report for Ireland

Anastasios Karakolidis, Brendan Duggan, Andrew Keating, and Natasha Toole



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Preface

The Programme for International Student Assessment (PISA) is a global study conducted by the Organisation for Economic Co-operation and Development (OECD) that assesses the knowledge and skills of 15-year-olds in science, reading, mathematics, and an innovative domain that changes with each cycle. PISA 2025 is the ninth cycle of the study, in which students from Ireland and 90 other countries and economies took part. This national report focuses on student performance in PISA 2025. It examines how students in Ireland and in other participating countries/economies performed in PISA 2025, draws comparisons with previous cycles, and provides reference estimates for comparison countries, as well as for the average across OECD and European Union (EU) countries. Student performance is also described in terms of proficiency levels. Finally, the report examines the relationship between performance and key student- and school-level factors.

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Finally, and most importantly, we wish to thank everyone who participated in PISA 2025. We are grateful to all the students who took part in the assessment and to their parents/guardians who completed the associated questionnaire. Particular thanks are due to the school contacts whose time, commitment, and efforts were instrumental in facilitating PISA testing within schools. We also wish to acknowledge the principals and science co-ordinators who completed their respective questionnaires and contributed valuable information to the study.

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Odilla Finlayson (Dublin City University)
Ronan Flatley (Mary Immaculate College)
Ryan Gallagher (University College Cork)
Anastasios Karakolidis (Educational Research Centre)
Brendan Duggan (Educational Research Centre)

Acronyms and abbreviations

ACER	Australian Council for Educational Research
COVID-19	Coronavirus Disease 2019
DEIS	Delivering Equality of Opportunity in Schools
ERC	Educational Research Centre
ESCS	Economic, Social, and Cultural Status
ETB	Education and Training Board
EU	European Union
ICT	Information and Communication Technology
IDB	International database
IEA	International Association for the Evaluation of Educational Achievement
NAMER	National Assessments of Mathematics and English Reading
NRBA	Non-response Bias Analysis
OECD	Organisation for Economic Co-operation and Development
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
SD	Standard Deviation
SE	Standard Error
STEM	Science, Technology, Engineering, and Mathematics
TIMSS	Trends in International Mathematics and Science Study

Chapter 1: Introduction

1.1. What is PISA?

PISA is an international study that examines the knowledge and skills of 15-year-old students in science, reading, mathematics, and an innovative domain that changes with each cycle. It is an initiative of the OECD and is the world's largest comparative education study; in 2025, 91 countries and economies took part. Up until 2025, PISA was conducted on a three-year cycle, but the study will move to a four-year cycle, meaning that the next cycle after PISA 2025 will take place in 2029.[1]

Rather than focusing only on mastery of school curricula, PISA assesses the extent to which students can apply what they have learned to address real-world problems. This provides insight into how well education systems prepare young people for future learning, work, and participation in society. Each PISA cycle focuses on one of the three core domains of science, reading, and mathematics, while also assessing the other two domains. In PISA 2025, *science* was the major domain, with *mathematics* and *reading* assessed as minor domains. In addition, PISA 2025 introduced *learning in the digital world* as the innovative domain, which assessed students' *computational problem solving* competencies, hence their ability to learn, solve problems, and adapt using digital tools and environments (OECD, 2026a).

PISA also collects detailed information from students, parents/guardians, teachers, and school leaders about their backgrounds, learning environments, attitudes, and resources. This allows for analysis of performance that is informed by important contextual information. Together, these data offer countries a comprehensive perspective on their education systems' outcomes and the contexts that shape them (OECD, 2026a).

[1] The administration of the previous PISA cycle was delayed by one year due to disruptions caused by the COVID-19 pandemic.

Table 1.1. Participating countries/economies in PISA 2025

<table>
<tr><th>OECD Members</th><th>EU Members</th><th colspan="2">Other countries/economies</th></tr>
<tr><td colspan="2">Austria</td><td>Albania</td><td>Macao (China)</td></tr>
<tr><td colspan="2">Belgium</td><td>Argentina</td><td>Malaysia</td></tr>
<tr><td colspan="2">Czechia</td><td>Armenia</td><td>Mauritius</td></tr>
<tr><td colspan="2">Denmark</td><td>Azerbaijan</td><td>Mongolia</td></tr>
<tr><td colspan="2">Estonia</td><td>Brazil</td><td>Montenegro</td></tr>
<tr><td colspan="2">Finland</td><td>Brunei Darussalam</td><td>Morocco</td></tr>
<tr><td colspan="2">France</td><td>B-S-J-Z (China)</td><td>North Macedonia</td></tr>
<tr><td colspan="2">Germany</td><td>Cambodia</td><td>Palestinian Authority</td></tr>
<tr><td colspan="2">Greece</td><td>Chinese Taipei</td><td>Paraguay</td></tr>
<tr><td colspan="2">Hungary</td><td>Dominican Republic</td><td>Peru</td></tr>
<tr><td colspan="2">Ireland</td><td>Dushanbe (Tajikistan)</td><td>Philippines</td></tr>
<tr><td colspan="2">Italy</td><td>Ecuador</td><td>Qatar</td></tr>
<tr><td colspan="2">Latvia</td><td>El Salvador</td><td>Republic of Moldova</td></tr>
<tr><td colspan="2">Lithuania</td><td>Georgia</td><td>Rwanda</td></tr>
<tr><td colspan="2">Luxembourg</td><td>Guatemala</td><td>Saudi Arabia</td></tr>
<tr><td colspan="2">Netherlands</td><td>Hong Kong (China)</td><td>Serbia</td></tr>
<tr><td colspan="2">Poland</td><td>Indonesia</td><td>Singapore</td></tr>
<tr><td colspan="2">Portugal</td><td>Jordan</td><td>Thailand</td></tr>
<tr><td colspan="2">Slovak Republic</td><td>Kazakhstan</td><td>Ukraine</td></tr>
<tr><td colspan="2">Slovenia</td><td>Kenya</td><td>United Arab Emirates</td></tr>
<tr><td colspan="2">Spain</td><td>Kosovo</td><td>Uruguay</td></tr>
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<tr><td>Australia</td><td>Bulgaria</td><td>Kyrgyzstan</td><td>Viet Nam</td></tr>
<tr><td>Canada</td><td>Croatia</td><td>Lebanon</td><td>Zambia</td></tr>
<tr><td>Chile</td><td>Cyprus</td><td></td><td></td></tr>
<tr><td>Colombia</td><td>Malta</td><td></td><td></td></tr>
<tr><td>Costa Rica</td><td>Romania</td><td></td><td></td></tr>
<tr><td>Iceland</td><td></td><td></td><td></td></tr>
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<tr><td>Mexico</td><td></td><td></td><td></td></tr>
<tr><td>New Zealand</td><td></td><td></td><td></td></tr>
<tr><td>Norway</td><td></td><td></td><td></td></tr>
<tr><td>Switzerland</td><td></td><td></td><td></td></tr>
<tr><td>Türkiye</td><td></td><td></td><td></td></tr>
<tr><td>United Kingdom</td><td></td><td></td><td></td></tr>
<tr><td>United States</td><td></td><td></td><td></td></tr>
</table>

(green)	OECD and EU member
(peach)	OECD member only
(blue)	EU member only
(white)	Non-OECD/EU member

Notes. B-S-J-Z (China) refers to the four PISA-participating provinces/municipalities of Beijing, Shanghai, Jiangsu, and Zhejiang.
Estimates for the United Kingdom include data from England, Northern Ireland, Scotland, and Wales.

1.2. Ireland's participation in PISA and other large-scale assessments

Ireland has participated in all PISA cycles since the first iteration in 2000. The country's performance has been consistently strong across all three core domains of science, reading, and mathematics, and above most participating countries/economies and the OECD average, in all cycles, with the exception of PISA 2009. Ireland's performance has been particularly strong in reading, where it ranks among the top-performing countries not only in the EU but also globally. In the previous cycle (PISA 2022), Ireland's performance declined in mathematics, remained stable in reading, and improved in science. Despite these changes, Ireland continued to perform above the average across OECD countries in all three domains (Donohue, Perkins, Walsh, et al., 2023).

In addition to PISA, Ireland participates in other international large-scale assessments, where it likewise demonstrates strong performance. The Trends in International Mathematics and Science Study (TIMSS) is coordinated by the International Association for the Evaluation of Educational Achievement (IEA) and examines the mathematics and science achievement of Grade Four (Fourth Class) and Grade Eight (Second Year) students internationally on a four-year cycle (Mullis et al., 2021). Ireland has participated in five TIMSS cycles: 1995, 2011 (at Grade Four only), 2015, 2019, and 2023. Ireland has performed better than most participating countries and above the international average across all cycles in both mathematics and science. In the latest cycle (TIMSS 2023), Ireland's results remained stable across domains and grade levels compared to TIMSS 2019 (McHugh et al., 2024).

The Progress in International Reading Literacy Study (PIRLS) is another international large-scale assessment coordinated by the IEA on a five-year cycle and assesses reading literacy at Grade Four (Fourth Class) (Mullis & Martin, 2019). Ireland has participated in three PIRLS cycles for which results are available: 2011, 2016, and 2021. In all three cycles, Ireland achieved a mean reading score above the international average and higher than that of most participating countries. In

2021, the latest cycle, Ireland’s performance was higher than in the previous cycle (PIRLS 2016) (Delaney et al., 2023).[2]

In addition to international large-scale assessments, Ireland administers its own National Assessments of Mathematics and English Reading (NAMER), which examine the mathematics and reading literacy of primary school pupils. NAMER 2021 is the ninth and most recent cycle of Ireland’s national assessments, which date back to 1972 (Kiniry et al., 2023). Since 2009, NAMER has been conducted at the end of Second and Sixth Classes, aligning with the end of the junior and senior stages of primary education (Eivers et al., 2010). Following a significant increase in pupil achievement in mathematics and reading between 2009 and 2014, performance in 2021 remained stable (Kiniry et al., 2023).[3]

PISA and other large-scale assessments allow the monitoring of student performance over time and enable valid comparisons of outcomes across countries and education systems. All these studies also collect rich contextual information from students, parents/guardians, teachers, and school principals. Analysing these contextual data alongside performance data enables Ireland and other countries to better understand the key factors associated with student outcomes. It also allows for the examination of patterns beyond overall performance, including differences between student groups, the monitoring of educational inequalities, and the assessment of broader outcomes of high importance, such as student well-being.

The results of PISA and other large-scale assessments (i.e., TIMSS, PIRLS, and NAMER) provide valuable evidence that is used to inform the design of national policy reforms and can also help monitor and evaluate their effectiveness and impact. Examples of such important reforms include Ireland’s first National Strategy to Improve Literacy and Numeracy among Children and Young People (2011–2020), Ireland’s Literacy, Numeracy and Digital Literacy Strategy (2024–2033), the STEM

[2] Due to ongoing school closures in spring 2021, in some countries, including Ireland, PIRLS was administered in autumn, when sampled pupils were at the beginning of Fifth Class rather than at the end of Fourth Class. This change in timing is likely to have contributed to the higher performance observed, and therefore, it cannot be concluded definitively that reading achievement in Ireland improved between 2016 and 2021 (Delaney et al., 2023).

[3] Originally scheduled for spring 2020, NAMER was postponed until spring 2021 due to the COVID-19 pandemic. To reduce the burden on schools and pupils in the pandemic context, pupils in Second Class took the English reading test only, while pupils in Sixth Class took the mathematics test only. This differed from NAMER 2009 and 2014, when pupils at both grade levels completed both assessments.

Education Policy Statement (2017–2026), and the Digital Strategy for Schools (to 2027) (Department of Education, 2022; Department of Education and Skills, 2011, 2017; Government of Ireland, 2024a).

1.3. Structure of this report

This report is divided into seven chapters. Chapter 1 provides an overview of PISA and discusses Ireland's participation and performance in large-scale assessments. Chapter 2 outlines the assessment frameworks, describes the sampling and administration procedures followed in PISA 2025, and provides notes on key statistical/technical terms and important caveats that should be considered when interpreting the results. Chapters 3, 4, 5, and 6 present Ireland's performance in the domains of science, reading, mathematics, and computational problem solving, respectively. Finally, a summary of key findings and conclusions is presented in Chapter 7.

Chapter 2: Methods

This chapter briefly outlines the assessment frameworks employed and the administration procedures followed in PISA 2025. It also describes the sampling procedures and the main characteristics of the schools and students in Ireland that participated in PISA. Finally, it provides notes on key statistical and technical terms and highlights important caveats that should be considered when interpreting the results.

2.1. Assessment frameworks

This section covers the frameworks in the PISA 2025 assessment. These frameworks provide the theoretical basis for the development of each domain, which, in turn, guides the development of the cognitive and non-cognitive materials used. The frameworks for the core domains of science, mathematics, reading, the innovative domain of learning in the digital world (computational problem solving), as well as the questionnaires, are all briefly described in this section. More information, including theoretical background information, domain organisation, and sample items, can be found in the detailed OECD frameworks (OECD, 2019a, 2023a, 2026a).

2.1.1. Science framework

Science was assessed as a major domain in PISA 2025, having previously been a major domain in 2015 and 2006. Since the first PISA cycle in 2000, the science framework has evolved substantially. Originally, PISA focused on assessing *scientific knowledge*, and this was amended to *scientific literacy* in 2006, and then to the outcomes of a *science education* in 2025 (see Box 2.1). This definition builds on and develops the PISA 2006 and PISA 2015 definitions, broadening the existing competencies, clarifying the ideas and knowledge required, and underscoring the growing emphasis on evaluating and using scientific information.

Box 2.1. PISA 2025 definition of the outcomes of science education

The competencies developed by scientific education are perceived to be a key educational outcome and are defined in terms of the ability to use scientific knowledge and information interactively, i.e., “the ability to engage with science-related issues, and with the ideas of science, as a reflective citizen”, and to use them for informed decision making.

Source: OECD (2026a)

As the major domain, science received more assessment time than the other domains. This allowed for a detailed examination of the competencies that are developed as part of a science education. Box 2.2 provides definitions of each competency. In the PISA 2025 science framework, two competencies from the 2015 framework (i.e., *Evaluate and design scientific enquiry* and *Interpret data and evidence scientifically*) were combined into a single competency, placing higher emphasis on evaluating designs. A third, new, competency was also introduced (i.e., *Research, evaluate and use scientific information for decision making and action).* This was designed to reflect the increasing emphasis on educating students about the vast availability of information claiming to be scientific on the internet. Assessment items focus on the application of science competencies across individual, local, national, and global contexts. Each competency is analysed and reported as a subscale in Chapter 3.

Three forms of knowledge are essential when demonstrating the use of all three competencies: content, procedural, and epistemic knowledge. Box 2.3 provides an overview of these types of knowledge. Despite adjustments to the assessment framework for the major domain, there remains substantial commonality in the content of the science frameworks; approximately one third of the test items used in the PISA 2025 science assessment are trend items (i.e., items used in previous PISA cycles). This supports valid comparisons with results from earlier cycles.

Box 2.2. PISA 2025 science competencies

1. Explain phenomena scientifically:

Recognise, construct, apply and evaluate explanations for a range of natural and technological phenomena.

2. Construct and evaluate designs for scientific enquiry and interpret scientific data and evidence critically:

Appraise and evaluate ways of investigating questions scientifically, and interpret and evaluate scientific data critically.

3. Research, evaluate and use scientific information for decision making and action:

Obtain scientific information on a specific global, local or personal science-related issue and evaluate its credibility, potential flaws and the implications for personal and communal decisions.

Source: OECD (2026a)

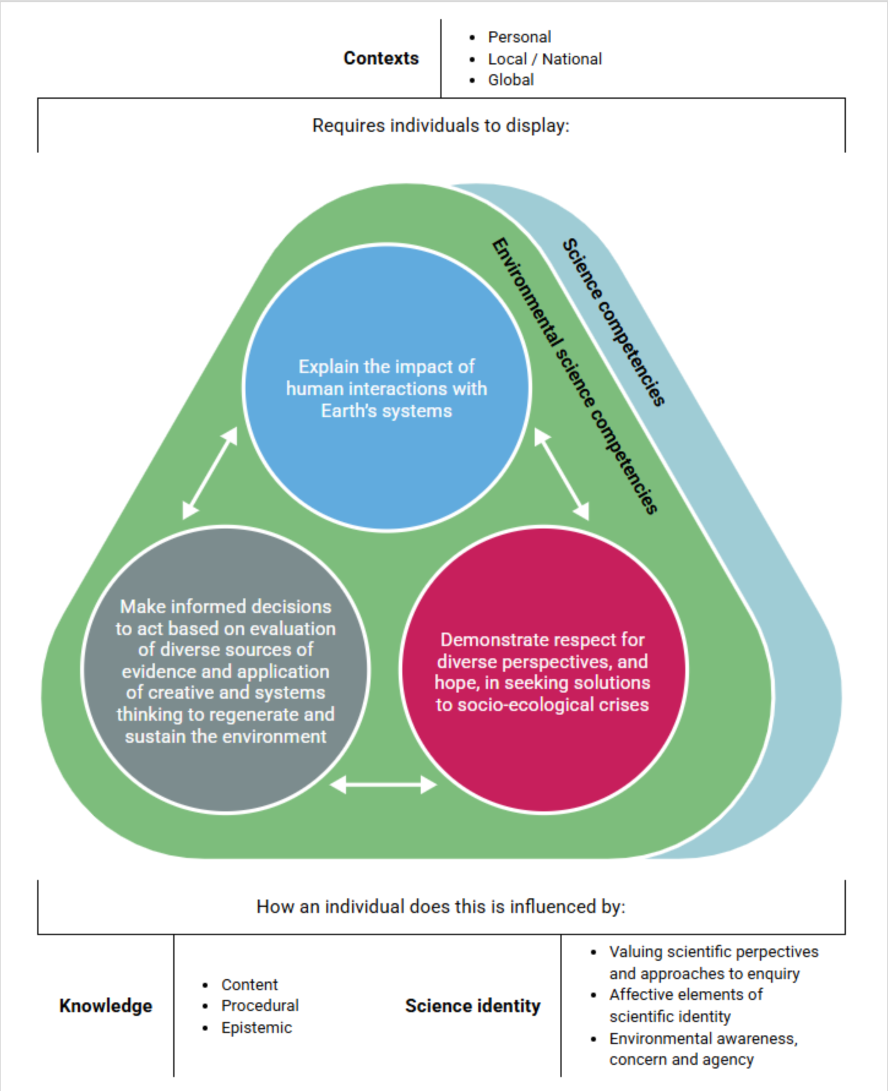
Box 2.3. Types of scientific knowledge

Content	This form of knowledge reflects information that is relevant to real-life situations, represents important scientific concepts and well-established theories, and is appropriate to the development level of 15-year-olds. Content knowledge is assessed across physical systems, living systems, and Earth and space systems.
Procedural	This is the knowledge of the concepts and procedures that are essential for scientific enquiry that underpin the collection, analysis and interpretation of scientific data.
Epistemic	This is the knowledge of the constructs and defining features essential to the process of knowledge construction in science and their role in justifying the knowledge produced by science. As such, epistemic knowledge provides a rationale for the procedures and practices in which scientists engage, a knowledge of the structures and defining features which guide scientific enquiry, and the foundation for the basis of belief in the claims that science makes about the natural world.

Source: OECD (2026a)

In PISA 2025, the degree to which 15-year-olds are knowledgeable of, concerned about, and able to act on environmental issues as a result of their science education (i.e., *environmental science*) was also assessed. The PISA science framework states that a young person growing up in a world where humankind is having a negative effect on the planet requires a range of competencies in order to address the issues of sustainability. The three essential competencies that underpin environmental science in PISA 2025, elements of which are measured in the science assessment, are presented in Figure 2.1. These competencies draw elements from the existing science framework competencies that can relate to environmental-specific competencies. Items from the science cognitive assessment which relate to the above competencies and have an environmental focus are used to construct a single environmental science scale.

Figure 2.1. Environmental science competencies



Source: OECD (2026c)

2.1.2. Mathematics framework

The definition of mathematical literacy has evolved from the first cycle when mathematics was the major domain in 2003, then reviewed again in 2012, and most recently in 2022 (Box 2.4). These revisions were made to reflect the changes in demands for mathematics literacy in education and society. These developments align with the shift away from focusing on basic calculations towards using mathematical knowledge and processes in real-world, contemporary contexts. As mathematics was a minor domain in PISA 2025, the 2022 framework was used, and the assessment was based on trend items (OECD, 2023a).

Box 2.4. Definition of mathematical literacy

Mathematical literacy is an individual's capacity to reason mathematically and to formulate, employ, and interpret mathematics to solve problems in a variety of real-world contexts. It includes concepts, procedures, facts, and tools to describe, explain and predict phenomena. It assists individuals to know the role that mathematics plays in the world and to make the well-founded judgements and decisions needed by constructive, engaged and reflective 21st Century citizens.

Source: OECD (2023a)

Mathematical literacy comprises two related aspects: mathematical reasoning and problem solving. Mathematical reasoning involves evaluating situations, selecting strategies, drawing logical conclusions, developing and describing solutions, and recognising how those solutions can be applied. Mathematical problem solving, on the other hand, involves formulating situations mathematically, employing mathematical concepts, facts, and procedures, and interpreting, applying, and evaluating mathematical outcomes.

2.1.3. Reading framework

The reading framework uses the term *reading literacy* rather than *reading* to convey that the assessment measures beyond basic decoding of words and reading aloud, and instead has a wider range of cognitive and linguistic competencies.

The definition of reading literacy was first developed for the first cycle in 2000, and has been reviewed and updated for both PISA 2009 and PISA 2018, when reading was the major domain (Box 2.5). The revisions were made to reflect the changes in demands for reading literacy in education and society. For example, in the most recent revision in the PISA 2018 cycle, digital texts were included in the framework to achieve an assessment that is more appropriate to the current use of texts around the world. In PISA 2025, reading was a minor domain, and therefore, the 2018 framework was used, and the assessment was based on trend items (OECD, 2019a).

Box 2.5. Definition of reading literacy

Reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society.

Source: OECD (2019a)

There are four dimensions of texts defined in the framework, which allows a broad coverage of the domain and represents both traditional and emerging reading practices: medium (print or electronic), environment (authored or message-based), text format (continuous, non-continuous, mixed, or multiple), and text type (description, narration, exposition, argumentation, instruction, or transaction). Similarly, the framework identifies further factors, such as scenarios, which can improve the coverage of the domain. Scenarios cover the different contexts where reading might occur, including personal, public, occupational, and educational contexts.

2.1.4. Learning in the digital world and computational problem solving

Learning in the digital world was the new innovative domain assessed in PISA 2025. Box 2.6 provides the definition for learning in the digital world.

Box 2.6. PISA 2025 definition of learning in the digital world

Learning in the digital world is defined as the capacity to engage in an iterative and self-regulated process of knowledge building and problem solving using computational tools and practices.

Source: Adapted from OECD (2026a)

This definition recognises learning in a digital world as a self-regulated process that requires learners to be active participants in their learning. In learning in the digital world, problem solving refers to the development of one's knowledge, via external resources, to reach a solution, rather than using existing knowledge to reach a particular goal. In this framework, information-search activities using computational tools (e.g., using internet search engines) are not included as these use skills beyond computational thinking (e.g., information-seeking and critical evaluation). The PISA 2025 assessment provides internationally comparable insights on how well students can engage in an autonomous learning process using computational tools to solve problems and build their knowledge and understanding.

The PISA 2025 learning in the digital world assessment features "…a cognitive test that measures the extent to which students can engage the cognitive, metacognitive and affective processes required for learning in the digital world" (OECD, 2023c, p. 10). The cognitive elements of this construct are assessed by an overall scale called *computational problem solving* (Box 2.7). Performance is also reported separately as a subscale for each type of computational tool used: modelling or programming.

Box 2.7. Definition of computational problem solving

Computational problem solving – The extent to which students can make progress towards their learning goals and build functional solutions using computational tools, such as modelling or programming tools, and using computational problem solving practices, such as conducting experiments, analysing data, and building and debugging computational artefacts.

Source: OECD (2026a)

2.1.5. Questionnaires

Table 2.1 provides an overview of the questionnaires administered in PISA 2025 in Ireland. All questionnaires were administered online, except the parent/guardian questionnaire, which was paper-based. More detailed information about the PISA questionnaires is available in the 2025 Assessment and Analytical framework (OECD, 2026a).

Table 2.1. Questionnaires administered in PISA 2025

Questionnaire type	Description
Student questionnaire	Information about students' background, their experiences at school, and their views and learning experience of science at school and at home
School questionnaire	Information about the school, such as its background, management, resources, and activities
ICT familiarity questionnaire (completed by the student)	Information about the availability and quality of digital devices and technology in and out of school, the use of ICT to support learning, and the familiarity, engagement, and proficiency of students with ICT
Parent/Guardian questionnaire	Information about students' background, their family, their learning and development outside of the school, and the learning-related attitudes, expectations, and practices of parents/guardians
Science co-ordinator questionnaire	Information about the teaching and learning of science across schools in Ireland

Note. An international science teacher questionnaire was available to all countries. Ireland chose to administer its own national questionnaire to the science co-ordinator (or principal/deputy principal) responsible for Junior Cycle science in each school.

2.2. Administration of PISA 2025

The administration of PISA 2025 involved several changes since the previous cycle, including the appointment of the Australian Council for Educational Research (ACER) as the international contractor, the introduction of a new assessment platform, and the participation of both new and returning countries/economies. Similar to previous cycles, participating countries/economies administered a field trial ahead of the main study to test the quality of assessment materials and procedures. In Ireland, the field trial took place in a convenience sample of 53 schools between March and April 2024. In each school, 50 15-year-old students were randomly selected to participate in the assessment. The PISA main study was administered in 172 schools between March and April 2025[4]. In each school, up to 46 15-year-olds were randomly selected to take part.

[4] In 2022, Ireland administered the PISA main study in autumn instead of the usual spring testing period for the first time in an effort to reduce the burden on schools (Donohue, Perkins, Walsh, et al., 2023). For the PISA 2025 testing window, the PISA Governing Board decided to shorten the data collection period to seven months, scheduling it from March to September to ensure a more timely

On the test date, two test administrators and one technical support person travelled to each school and administered the PISA assessment in two classrooms. Across the testing window, members of the Inspectorate of the Department of Education and Youth acted as lead test administrators who, along with support test administrators and technical support personnel, both hired by the ERC, went to schools across the country to administer the assessment.

To ensure internationally consistent administration, external quality monitors were contracted by the PISA consortium to monitor testing procedures in schools in all countries/economies, including Ireland, during the main study data collection. Two international quality monitors carried out monitoring in 10 schools in Ireland. A further seven schools were visited by ERC staff for national quality-monitoring purposes. All test administrators, technical support personnel, and quality monitors were trained by the ERC PISA national team ahead of testing and received support materials outlining the procedures for testing, the responsibilities of their role, and communication protocols.

In each of the participating schools, the principal nominated a staff member to act as the school contact for the duration of the study. The school contact liaised with an assigned PISA team member in the ERC and the lead test administrator to carry out key tasks for the planning, preparation, and execution of PISA testing in their school. The school contact was also available on the day of testing to complete some key documentation and to ensure that testing could proceed smoothly.

To ensure that Ireland met the technical standards for assessment and response rates, the ERC conducted 20 additional follow-up test sessions for schools where large numbers of students were absent on the initial test date. These sessions were administered by either a lead or support test administrator or an ERC staff member.

The 2025 cycle is the fourth PISA cycle in Ireland in which the assessment was computer-based, allowing, among other things, the use of more interactive and engaging items, an adaptive testing design, and the collection of process data. This cycle was the first in which PISA was offered online; no dedicated testing software was required, only an active internet connection and an up-to-date browser were

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release of the results. As a result, the assessment in Ireland was once again administered in the spring.

needed. The provision of all technical equipment (i.e., laptops and 5G routers) at test locations was undertaken by the ERC through the technical support personnel. In many instances, though, the school's devices and internet were used.

Given the challenges experienced with participation in the 2022 cycle, and to further raise awareness of the study, the ERC and the Inspectorate of the Department of Education and Youth developed a number of promotional videos in advance of the PISA 2025 main study. These were targeted at school principals, teachers, students, and parents, and were made available in both English and Irish. In addition, schools were provided with vouchers to give food and drinks to participating students on the assessment day. Schools could also claim one day's substitution pay in recognition of the work involved in carrying out the study. Each school and student were awarded participation certificates from the ERC.

2.3. Sample

The PISA sampling approach seeks to select a sufficiently large and representative sample of school-going 15-year-olds in all countries/economies to allow the results from the domain assessments and the contextual information collected to be generalised to the target population as a whole, and to enable valid comparisons between the participating countries/economies and with previous cycles. This is achieved through a two-stage stratified cluster sampling design.

2.3.1. Sampling procedures

In order to ensure full coverage of the target population, a list of all eligible post-primary educational institutions was identified, and any exclusions were documented. In the first design stage, these schools were grouped into different strata based on explicit stratification variables (school type/sector and school size) and implicit ones (school gender and school-level aggregation of socio-economic status of students [based on the Pobal HP Deprivation Index]). Selection of schools within each stratum was then undertaken based on probability proportional to size sampling, where size is estimated based on the number of eligible students within each school, and therefore, students have a similar probability of selection.

In the second design stage, following the selection of schools, a list of eligible students in selected schools was identified, and a random selection of these students was invited to participate in PISA. The number of students selected per school in Ireland, known as the *target cluster size*, was 46. In the event that a selected school had fewer than 46 eligible students in total, all eligible students were selected to participate.

Within each country, the sampling procedures have a number of criteria to be met (OECD, 2025), which are employed sequentially as follows:

1. A minimum of 150 schools from the total number of eligible schools is required (this number can be higher for countries with smaller schools).
2. A minimum proportion of 85% of the selected schools is required to participate.
3. A minimum of 6,300 assessed students is required.
4. A minimum proportion of 80% of all eligible students (i.e., response rate) is required to take part.

Ireland met all these quality criteria in PISA 2025.

2.3.2. Participation in PISA 2025

A total of 7,843 students from 172 schools were selected to participate in PISA 2025 in Ireland. Of these schools, all agreed to participate, achieving a school-level response rate of 100%. The school-level response rate is in line with previous cycles.

Student-level sample information for PISA 2025, along with comparative data for the more recent PISA cycles from 2015, when science was last assessed as the major domain, is shown in Table 2.2. The unweighted assessment rate (e.g., the proportion of those in the initial sample who participated) in PISA 2025 (81.0%) was substantially higher than the comparative rate in 2022 and slightly lower than in 2018 and 2015. For PISA 2025, the proportion of non-participation due to parental refusal (1.2%) has returned to a more typical level, following the large spike in these cases in 2022. The proportion of students who did not participate due to absence or other reasons declined in 2025 (13.5%) compared to 2022, but it was still higher than both 2015 and 2018. The proportion of ineligible students in the 2025 sample (1.0%) was similar to that of the 2018 sample, and lower than in 2022 and 2015. Overall, non-participation declined in 2025 compared to 2022, returning to levels similar to 2018 and 2015.

Table 2.2. Frequencies (unweighted) and percentages (unweighted) of total sample, participants, and non-participants, by reason of non-participation (2015–2025)

		2015		2018		2022		2025	
		n	%	*n*	%	*n*	%	*n*	%
Non-participations by category	Parental refusal	44	0.6	75	1.1	512	6.7	91	1.2
	Ineligible	117	1.7	59	0.9	111	1.5	79	1.0
	Special Educational Needs exclusion	197	2.9	257	3.8	266	3.5	259	3.3
	Absence / Other reason for non-participation	737	10.8	793	11.7	1,177	15.4	1,058	13.5
Total non-participants from initial selection		1,095	16.0	1,184	17.5	2,066	27.1	1,487	19.0
Participants		5,741	84.0	5,577	82.5	5,569	72.9	6,356	81.0
Total sample		6,836	100.0	6,761	100.0	7,635	100.0	7,843	100.0

Table 2.3 presents the distribution of students who were excluded from the study across four categories of special educational needs in 2025 and the three previous PISA cycles. It also reports the total within-school exclusion rates and the overall exclusion rates for each cycle. In all cases, the overall exclusion rates were below the 5.0% threshold set by the OECD. The overall weighted student response rate[5] in Ireland was 84.7%, exceeding the required minimum response rate of 80.0%. Ireland achieved response rates above the required standard in all PISA cycles, with the exception of 2022 (Figure 2.2).

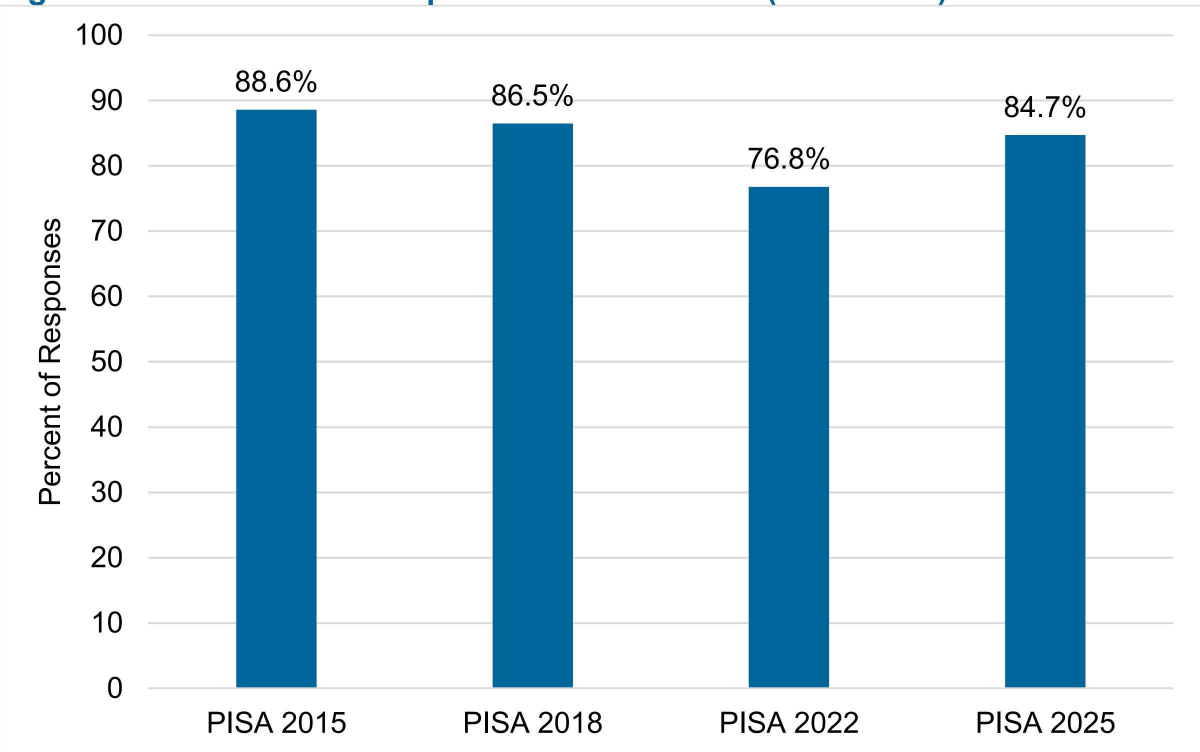
[5] The response rate shown here is the proportion of participants to the total selected sample less those who were either excluded or ineligible, weighted by student-level weighting.

Table 2.3. Percentage of students excluded from the assessment, by special educational needs category (2015–2025)

	2015 %	2018 %	2022 %	2025 %
Functional disability	0.3	0.6	0.3	0.3
General cognitive, behavioural, or emotional disability	0.9	1.3	2.0	1.4
Specific learning disability (e.g., severe dyslexic difficulties)	0.9	1.2	0.5	0.4
Limited language proficiency	0.8	0.7	0.7	1.3
Total within-school exclusion rate	3.0	3.8	3.5	3.3
Overall exclusion rate	3.1	3.9	3.6	3.4

Source: OECD (2016, 2019b, 2023b), Annex A.
Notes. According to school contacts' reports, in PISA 2025, 139 students had functional disabilities, 515 students had general cognitive, behavioural, or emotional disabilities, 482 students had specific learning disabilities, and 288 students had limited proficiency in the language of assessment. Most of the students with one or more special education needs were not excluded from the assessment.

Figure 2.2. Student-level response rates in Ireland (2015–2025)



2.3.3. Distribution of participants

Similar to previous cycles, in 2025 in Ireland, similar proportions of boys and girls took part in PISA. In the last cycle of PISA, the proportions of students with an immigrant background and of those who spoke a language other than English or Irish most of the time at home increased further (Table 2.4). In 2025, 49.2% of second-generation immigrants and 73.4% of first-generation immigrants reported speaking a language other than English or Irish at home most of the time, while very few non-immigrant students in Ireland (0.5%) reported speaking a language other than English or Irish at home.

Table 2.4. Percentage of participants, by gender, immigration status, and language spoken at home (2015–2025)

	2015 %	2018 %	2022 %	2025 %
Gender				
Boys	51.3	49.7	51.3	49.6
Girls	48.7	50.3	48.7	50.4
Immigration status				
Non-immigrant	85.6	82.1	82.6	76.9
Second-generation immigrants	3.4	8.0	9.4	12.8
First-generation immigrants	11.0	9.8	8.0	10.3
Language spoken at home				
Speaks English/Irish at home	92.8	90.9	88.9	85.5
Speaks another language at home	7.3	9.1	11.1	14.5

Notes. In 2025, students were offered the option to select a third gender category (Non-binary or other) in their questionnaire. Very few students selected this option (0.9%), and therefore, this group was excluded from all analyses done by gender.
Non-immigrant students are students who have at least one parent born in the country of assessment. Second-generation immigrants are students born in the country of assessment but whose parents were born outside the country of assessment. First-generation immigrants are students born outside the country of assessment and whose parents were also born outside the country of assessment.

For PISA 2025, the testing period returned to the traditional spring period that had been the case for each cycle up to 2018, following the move to autumn testing at the 2022 cycle. As PISA is an age-based programme with a target population of school-going 15-year-olds, transitions in testing periods have an effect on the school grade distribution of participants (see Table 2.5). In 2025, like in 2018 and 2015, most participants were in Third Year when taking the assessment. This contrasts with 2022, when most were in Transition Year.[6]

The percentage of students who attended DEIS schools in PISA 2025 (25.4%) was similar to, but slightly higher than, that in 2018 and 2015, reflecting the small increase in the number of DEIS schools and, consequently, students attending them (Table 2.5). In 2022, the percentage of participating students attending DEIS schools

[6] Denner (2023) examined whether there were differences in achievement performance based on spring and autumn testing for PISA 2018, and found no significant differences in overall average performance or distribution across proficiency levels on reading literacy, mathematics, and science domains.

was lower than in the examined cycles and their population-level estimates. DEIS schools were selected across all school types.

Table 2.5. Percentage of participants, by school type, grade, and DEIS status (2015–2025)

	2015 %	2018 %	2022 %	2025 %
School type				
Secondary boys	16.7	15.0	16.5	12.2
Secondary girls	21.1	21.2	17.8	16.9
Secondary mixed	18.6	17.4	19.1	22.7
Community/comprehensive	17.6	16.9	16.2	16.9
ETB	26.0	29.5	30.4	31.3
School grade				
First/Second Year	1.8	2.0	0.2	1.4
Third Year	60.6	61.6	26.1	65.1
Transition Year	26.5	27.9	57.0	27.9
Fifth/Sixth Year	11.1	8.5	16.7	5.7
DEIS status				
DEIS	23.5	24.1	21.0	25.4
Non-DEIS	76.5	75.9	79.0	74.6

Note. Schools in the process of transitioning to becoming mixed (formerly designated as single-sex), where administrative data indicated that all PISA-eligible students were of the same sex, were classified as single-sex schools. Very few non-secondary schools had a single-gender composition; due to the small number of students, this category was not analysed separately.

Students participating in PISA who attend Irish-medium schools or schools with an Irish stream were offered the option to undertake the assessment in Irish or English. For those who elected to take it in Irish, all assessment instruments and the student questionnaire were administered in Irish, with the exception of the reading assessment. Students could not change the language of assessment once they had started, and unlike previous cycles, could not select a different language for the questionnaire from that of the assessment. In PISA 2025, 1.9% took the assessment in Irish (Table 2.6).

Table 2.6. Percentage of participants completing the assessment and the questionnaire in Irish (2015–2025)

<table>
<tr><th></th><th>2015
%</th><th>2018
%</th><th>2022
%</th><th>2025
%</th></tr>
<tr><td>Assessment in Irish</td><td>1.8</td><td>1.4</td><td>1.7</td><td rowspan="2">1.9</td></tr>
<tr><td>Questionnaire in Irish</td><td>1.0</td><td>0.5</td><td>0.8</td></tr>
</table>

2.4. Statistical terms

The following statistical terms are used throughout the report. Explanations are provided to assist readers in interpreting these terms and the analysis results presented in the report.

Mean scores and percentages: Mean scores (e.g., average science performance) and percentages (e.g., the proportions of low/top performers in reading) are presented and discussed throughout this report. These estimates are reported for the overall sample and for subgroups within Ireland, as well as for the OECD and the EU, on average. Sampling weights and plausible values were used to provide accurate performance-related estimates.

Mean differences reported in the text are calculated using the original (unrounded) values and may therefore differ slightly from values calculated directly from the figures/tables due to rounding. Similarly, percentages reported in the text may differ slightly from the sums of percentages shown in the figures/tables because the displayed values are rounded.

OECD average: All references to OECD estimates in this report refer to the OECD average. The OECD average for a given cycle refers to the average across OECD countries for the indicator in question (e.g., science achievement), with all countries contributing equally. For PISA 2025, all 38 OECD members participated in PISA, and their estimates are taken into account in the OECD average (unless otherwise specified). In the first cycle in which a domain had major status (2000 for reading, 2003 for mathematics, and 2006 for science), PISA test scores were scaled to an OECD average of 500 and a standard deviation of 100.

EU average: All references to EU estimates in this report refer to the EU average. Similar to the OECD average, the EU average for a given cycle refers to the average across EU countries for the indicator in question, with all countries contributing equally. For PISA 2025, all of the current 27 EU member states participated, and their estimates are taken into account in the EU average.

OECD and EU average in trend analysis: Countries that were OECD or EU members in 2025 are treated as members in all previous cycles for the purpose of calculating the OECD and EU averages. When OECD or EU average estimates are compared across PISA cycles, they are based on the same group of OECD/EU countries that had valid data in all examined cycles. For trend analysis between 2015 and 2025, valid data in all four cycles (2015, 2018, 2022, and 2025) were available for 36 OECD countries and 25 EU countries (after excluding Luxembourg, which did not participate in PISA 2022, and Spain, for which the comparability of PISA 2018 data with those from earlier cycles cannot be fully ensured). For comparisons between 2022 and 2025, valid data were available for 37 OECD countries and 26 EU countries (Luxembourg excluded). Costa Rica did not collect data on students' immigration status and is therefore excluded from the OECD average for analyses involving this variable. Where an OECD or EU member country is excluded from the calculation because of non-participation or data quality issues in one or more cycles, this is noted beneath the relevant table or figure.

Standard deviation (SD): The standard deviation is a measure of the spread of scores for a particular group. The smaller the standard deviation, the less dispersed the scores are. The standard deviation provides a useful way of interpreting the difference in mean scores between groups, since it corresponds to percentages of a normally distributed population (i.e., approximately 68% of students in a population have an achievement score that is within one standard deviation of the mean and approximately 95% have a score that is within two standard deviations of the mean).

Standard error (SE): The standard error is an indication of the level of uncertainty around an estimate. Estimates for group-level characteristics are provided in this report, accompanied by a standard error. The smaller the standard error, the more confidence there is that the observed value reflects the population. Replicate weights and plausible values were used in the analysis to provide accurate estimates of the statistics and their standard errors. All standard errors in this report 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 was zero, but that it was smaller than 0.05 or 0.005, respectively.

Statistical significance of the difference between estimates: Statistical significance indicates that a difference between estimates (e.g., the difference in mean science performance between two groups) is unlikely to have occurred by chance and would likely occur again if the assessment was repeated. For comparisons of performance between PISA 2025 and previous cycles, link errors were taken into account. The criterion, or alpha level (α), of .05 was used to determine if the probability of each statistic being observed by chance is less than 5%. It should be noted that *significant* in the statistical sense does not necessarily imply the degree of meaningfulness in the everyday sense, but rather that an event most likely did not occur by chance. Statistically significant differences can sometimes be very small in practical terms, and informed judgment should therefore be used in interpreting the results of the statistical tests presented here.

Unless otherwise specified, all performance differences and changes discussed in this report refer to statistically significant differences/changes.

Effect size of the difference between score estimates: In PISA, the results are scaled to fit approximately normal distributions with means around 500 points and standard deviations around 100 points. Therefore, differences in score estimates can be relatively easily translated into effect sizes. For example, a 5-point difference on the PISA scale corresponds to an effect size (Cohen's *d*) of about 0.05 and a 20-point difference to an effect size of 0.20. The effect sizes of differences between mean scores have the following guidelines for interpretation (Cohen, 1988). These benchmarks should not always be interpreted rigidly, because even small effect sizes can have large consequences in some educational contexts.

Small effect size: $d = 0.20$
Medium effect size: $d = 0.50$
Large effect size: $d \geq 0.80$

Correlation: A correlation coefficient (Pearson's *r*) describes the strength of a relationship between two continuous variables (e.g., the relationship between science achievement and socio-economic status). The value of a correlation can range from -1 to +1. A positive correlation indicates that, as one variable increases, the other does too, while a negative correlation indicates that, as one variable increases, the other decreases. A correlation coefficient close to 0 indicates little or no relationship, while the closer the value is to ±1, the stronger the relationship. The strength of correlation coefficients has the following guidelines for interpretation (Cohen, 1988). These benchmarks should not always be interpreted rigidly, because even coefficients of small effect size can have large consequences in some education contexts.

Small correlation: $r = 0.10$
Medium correlation: $r = 0.30$
Large correlation: $r \geq 0.50$

2.5. Analysis

The OECD's international report (Volume I) used version 2.1 of the PISA 2025 international database (IDB) (OECD, 2026b). This national report used a more recent version of the 2025 data, and therefore, small discrepancies may occur between estimates reported in the two publications, particularly for analyses involving gender, as a small number of corrections were incorporated into the version of the database used for this report. Since the release of IDB 2.1, further corrections have been made to the database by ACER to address identified issues. To avoid risks to publication timelines, neither the OECD's Volume I nor this national report used the most up-to-date version of the IDB (2.4). These further corrections may affect some estimates presented in Volume I and this national report, but they do not affect the findings. All subsequent publications will be based on IDB 2.4. The data analysis for this report was conducted using Stata 19 (StataCorp, 2025), IBM SPSS Statistics 32 (IBM Corp, 2026), and the IEA's IDB Analyzer 5 (IEA, 2025).

2.6. Caveats in interpreting the results

In PISA 2022, due to the burdens introduced by the COVID-19 pandemic disruptions, an increased number of countries, including Ireland, did not meet the response-rate standards. These countries were requested to submit a non-response bias analysis (NRBA) report to determine if the below-threshold response rate led to systematic differences between the characteristics in the weighted sample and population of eligible students, which might in turn lead to the introduction of biased results. In Ireland, this analysis provided evidence of a small upward bias indicating that the PISA 2022 scores were higher by approximately 8 or 9 points compared to a scenario where all selected students had participated (i.e., 100% student-level response rate) (Donohue, Perkins, Millar, et al., 2023; OECD, 2024). It should be noted, though, that Ireland has never achieved a response rate above 88.6% (achieved in 2015), and therefore, some level of upward bias is likely to be in all other cycles. Therefore, when comparing PISA 2022 scores to earlier cycles, it should be considered that around 4 (as opposed to 8 or 9) points of the difference may be due to bias rather than real performance changes (Donohue, Perkins, Millar, et al., 2023; Donohue, Perkins, Walsh, et al., 2023). In 2025, Ireland has met all OECD sampling requirements, implying that the sample of participants more closely resembles the population of all eligible students compared to the sample from the previous cycle. As a result, it is likely that the estimated achievement results in 2025 have less upward bias compared to those in 2022.

Additional caution is required when comparing results of some subgroups between this cycle and 2022. Donohue, Perkins, Millar, et al. (2023) found that the non-response bias was not consistent across subgroups, and the upward bias was larger for certain groups (e.g., male students and students in DEIS schools). As a result of these findings, variation in achievement estimates for 2022 among these groups may be greater than the overall upward bias.

These, along with differences in some sample characteristics described above (e.g., fewer students from DEIS schools were selected and participated in PISA 2022 compared to other cycles, deviating from the population figures), should be taken into account when comparing the current results with those from 2022.

Chapter 3: Performance in science

This chapter focuses on student performance in science, which was assessed as the major domain in PISA 2025. It examines how students in Ireland and in other participating countries/economies performed in PISA 2025, draws comparisons with previous cycles, and provides reference estimates for comparison countries, as well as for the OECD and the EU. Overall science performance and performance across science subscales are presented. Student performance is also described in terms of proficiency levels. Finally, the chapter examines the relationship between science performance and key student- and school-level factors.

Unless otherwise specified, all performance differences and changes discussed in this chapter refer to statistically significant differences/changes.

3.1. Overall science performance

3.1.1. Science performance in PISA 2025

Table 3.1 presents the overall mean science performance for all countries/economies participating in PISA 2025, as well as the corresponding averages across OECD and EU countries. Ireland achieved a mean score of 500 points on the overall science scale, which was higher than both the OECD (482 points) and EU (476 points) averages. The highest-performing country/economy in science was B-S-J-Z (China)[7], which scored higher than all other participants. Japan had the highest mean performance among OECD countries, while Estonia was the top performer in the EU.

[7] B-S-J-Z (China) refers to the four PISA-participating provinces/municipalities of Beijing, Shanghai, Jiangsu, and Zhejiang.

Table 3.1. Mean science performance for all countries/economies, the OECD, and the EU (2025)

Country	Mean	SE	SD	IRL	Country	Mean	SE	SD	IRL
B-S-J-Z (China)	597	(2.2)	88	↑	Uzbekistan	438	(2.7)	70	↓
Singapore	560	(1.7)	105	↑	Montenegro	435	(1.3)	88	↓
Macao (China)	541	(1.1)	88	↑	Albania*	435	(2.7)	79	↓
Chinese Taipei	540	(3.0)	107	↑	Qatar	434	(1.3)	100	↓
Japan	538	(3.8)	100	↑	Greece	434	(2.9)	92	↓
Estonia	527	(2.3)	88	↑	Thailand	432	(3.2)	81	↓
Korea	526	(3.4)	104	↑	Serbia	429	(2.9)	91	↓
United Kingdom	511	(2.1)	104	↑	Romania	425	(4.2)	101	↓
Canada*	510	(1.8)	99	↑	Mongolia	424	(2.1)	81	↓
New Zealand*	509	(2.3)	108	↑	Costa Rica	424	(2.6)	78	↓
Australia	509	(1.9)	105	↑	Georgia	422	(2.7)	85	↓
Finland	504	(2.3)	105	↔	Moldova	422	(2.8)	87	↓
United States*	502	(5.8)	114	↔	Bulgaria	421	(4.1)	106	↓
Switzerland	501	(2.6)	103	↔	Kazakhstan	420	(1.6)	78	↓
Ireland	500	(2.2)	93		Malaysia	419	(2.2)	80	↓
Austria	497	(2.7)	101	↔	Colombia	414	(3.3)	90	↓
Hong Kong (China)	496	(3.0)	103	↔	Mexico	414	(2.0)	75	↓
Poland	495	(2.7)	97	↔	Saudi Arabia	413	(2.6)	81	↓
Türkiye	494	(2.3)	94	↔	Cyprus	411	(1.5)	109	↓
Czechia	490	(2.6)	97	↓	Azerbaijan	409	(3.2)	91	↓
Belgium	490	(2.9)	102	↓	Brazil	409	(1.9)	94	↓
Lithuania	488	(1.8)	89	↓	Jordan	407	(2.5)	79	↓
Germany	486	(3.5)	109	↓	Peru	406	(2.5)	80	↓
Netherlands*	485	(2.8)	109	↓	Ecuador	393	(2.2)	76	↓
Sweden	485	(3.0)	108	↓	Argentina	393	(3.0)	92	↓
Slovenia	484	(1.3)	100	↓	Indonesia	389	(2.3)	67	↓
France	483	(3.2)	104	↓	El Salvador	385	(2.2)	77	↓
Italy	483	(2.5)	92	↓	Cambodia	382	(1.7)	63	↓
Portugal	482	(3.5)	97	↓	North Macedonia	378	(1.0)	89	↓
Hungary	480	(2.4)	95	↓	Philippines	373	(2.3)	86	↓
Denmark	478	(2.4)	96	↓	Lebanon	372	(3.5)	99	↓
Spain	477	(1.9)	93	↓	Armenia	369	(1.8)	75	↓
Croatia	476	(1.8)	95	↓	Kyrgyzstan	363	(2.2)	68	↓
Slovak Republic	475	(2.5)	101	↓	Dominican Republic	361	(2.3)	76	↓
Luxembourg	474	(1.1)	113	↓	Palestinian Authority	359	(1.9)	71	↓
Norway*	470	(2.0)	102	↓	Morocco	358	(3.3)	75	↓
Latvia	468	(2.1)	95	↓	Kosovo	357	(1.3)	69	↓
United Arab Emirates	458	(2.0)	110	↓	Paraguay	355	(2.0)	80	↓
Viet Nam	457	(3.9)	80	↓	Kurdistan Region (Iraq)	352	(1.8)	65	↓
Malta	453	(1.5)	108	↓	Guatemala	351	(2.5)	73	↓
Ukraine	448	(2.5)	91	↓	Zambia	337	(11.0)	107	↓
Uruguay	445	(1.8)	88	↓	Kenya	335	(2.9)	77	↓
Chile	442	(2.5)	88	↓	Dushanbe (Tajikistan)	334	(1.4)	64	↓
Israel	442	(3.4)	111	↓	Rwanda	317	(3.5)	77	↓
Iceland	441	(1.6)	98	↓					
Brunei Darussalam	439	(0.8)	93	↓	OECD average	482	(0.4)	99	↓
Mauritius	438	(4.2)	102	↓	EU average	476	(0.5)	100	↓

	Statistically significantly above OECD average	↑	Statistically significantly above Ireland
	At OECD average	↔	Not different from Ireland
	Statistically significantly below OECD average	↓	Statistically significantly below Ireland

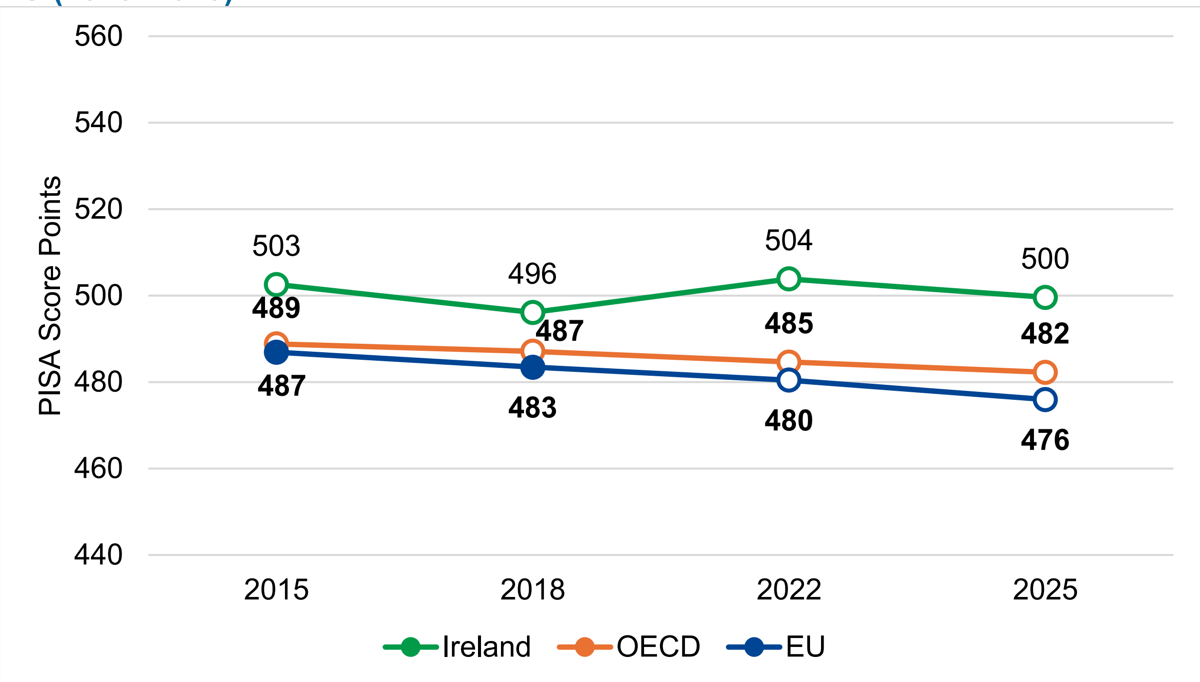
Notes. The OECD average is the mean across all 38 OECD countries. The EU average is the mean across all 27 EU countries.
*Caution is required when interpreting estimates for this country/economy because one or more PISA sampling standards were not met.

Of the 91 participating countries/economies in PISA 2025, 11 had mean science scores higher than Ireland, a further seven countries/economies had mean scores that did not differ statistically significantly from that of Ireland, while the remaining 72 countries/economies had lower mean science scores. At the OECD level, seven countries (Japan, Estonia, Korea, the United Kingdom, Canada, New Zealand, and Australia) had mean science scores that were higher than that of Ireland, while in the EU, only one country (Estonia) outperformed Ireland.[8] [9]

3.1.2. Trends in science performance

Figure 3.1 presents trends in science performance for Ireland as well as for the OECD and EU averages, focusing on the more recent PISA cycles from 2015, when science was last assessed as the major domain.

Figure 3.1. Trends in mean science performance in Ireland, the OECD, and the EU (2015–2025)



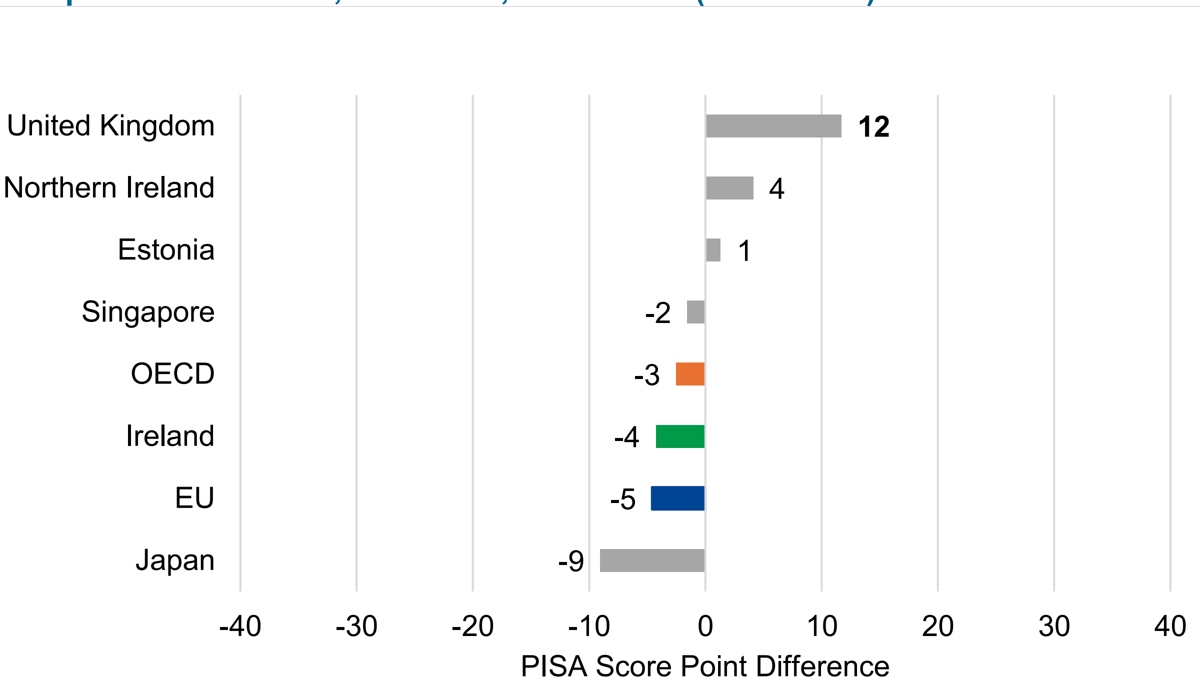
Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded). The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland in that cycle.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

[8] The mean science score for Northern Ireland was 492, which is statistically significantly lower than Ireland's mean score.
[9] Ireland's rank in science is estimated to range from 11th to 21st among all participating countries/economies and from 8th to 16th among OECD countries (OECD, 2026b, Table 1.2.o3).

In Ireland and on average across OECD countries, science performance in 2025 did not differ statistically significantly from that in any of the recent PISA cycles. In contrast, the EU shows a declining pattern over time, with its average in PISA 2025 being lower than the corresponding averages in 2015 and 2018; all other changes across cycles for OECD and EU averages were not statistically significant. Across all examined cycles, Ireland achieved a mean science score that was higher than both the OECD and EU averages. Trend performance estimates from PISA 2006, the first cycle in which science was assessed as a major domain, are presented in Figure A.1 (Appendix A).

Figure 3.2 presents the changes in mean science scores between PISA 2022 and 2025 for Ireland, selected comparison countries, and the OECD and EU averages. Comparison countries participated in both cycles and were selected for either their performance in PISA 2025 (the highest-performing country globally [Singapore], within the OECD [Japan], and within the EU [Estonia]) or as neighbouring education systems for contextual comparison (the United Kingdom and Northern Ireland).

Figure 3.2. Change in mean science performance in Ireland, selected comparison countries, the OECD, and the EU (2022–2025)



Notes. The OECD average is the mean across 37 OECD countries (Luxembourg excluded).
The EU average is the mean across 26 EU countries (Luxembourg excluded).
Changes that are statistically significant are indicated in bold.

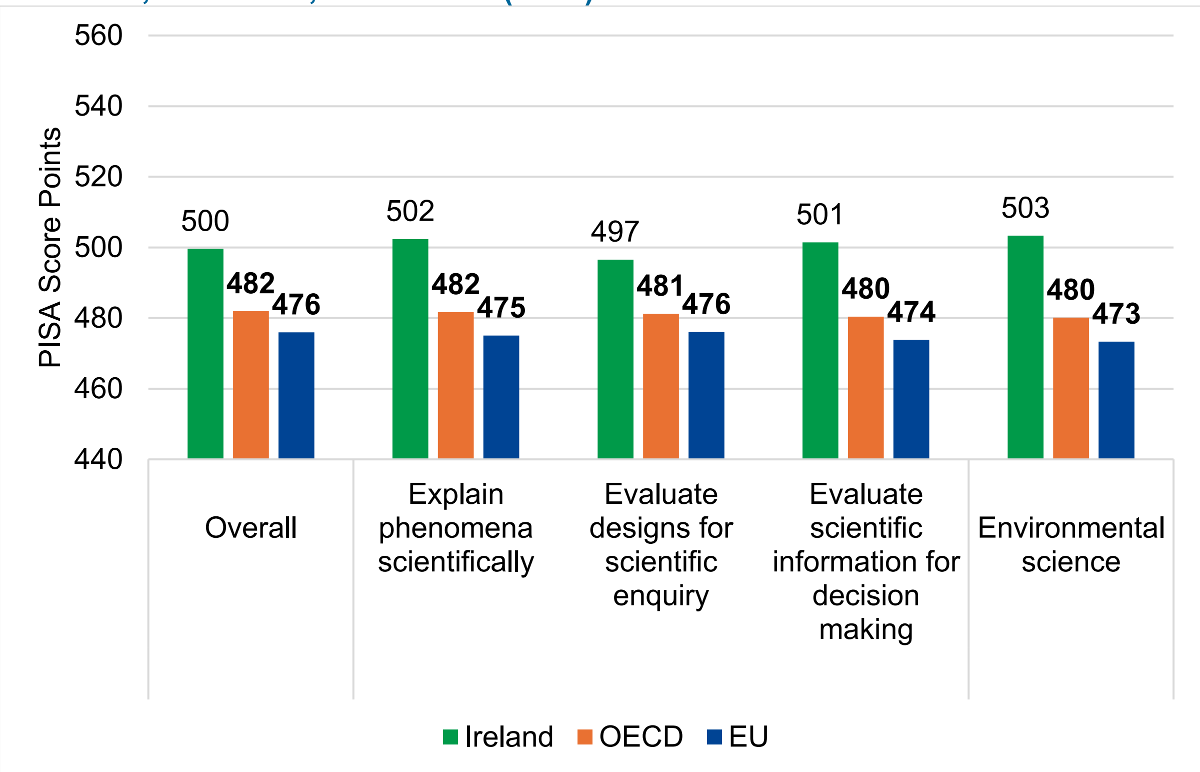
On average across OECD and EU countries, science performance declined between 2022 and 2025, although the changes were not statistically significant. The United

Kingdom was the only comparison country in which mean science performance increased between 2022 and 2025. Changes in Ireland and across the other comparison countries were not statistically significant.

3.2. Performance on science subscales

Apart from the overall scale, performance in science was also measured across three scientific competency subscales: (i) explaining phenomena scientifically, (ii) evaluating designs for scientific enquiry, and (iii) evaluating scientific information for decision making. Additionally, student performance on a separate set of competencies in environmental science was also assessed and measured via a distinct environmental science subscale. Figure 3.3 presents overall science performance, as well as performance across the three scientific competency subscales and the environmental science subscale, for Ireland and the OECD and EU averages.

Figure 3.3. Mean performance on the overall science scale and the subscales in Ireland, the OECD, and the EU (2025)



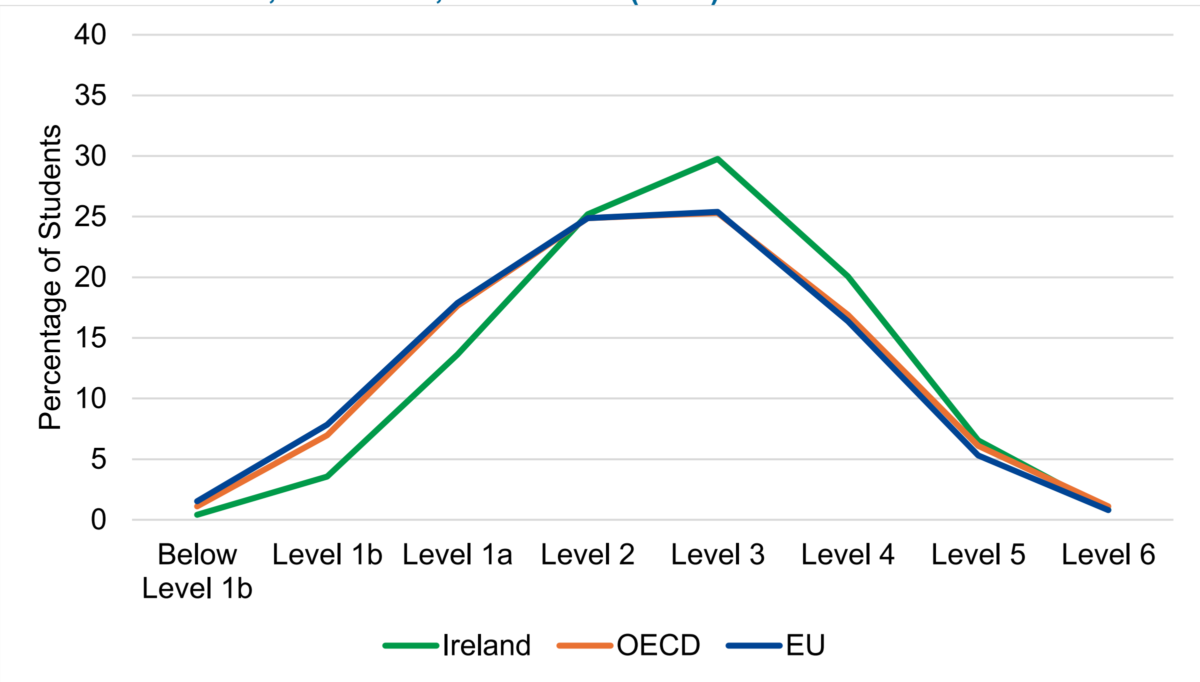
Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

Students in Ireland performed at similar levels across the three scientific competencies and outperformed their counterparts across the OECD and the EU, on average, on all three subscales. In Ireland, performance in environmental science was similar to performance in science overall and across other competencies. Students in Ireland also scored above the OECD and EU averages in environmental science.

3.3. Performance on science proficiency levels

PISA scores can be mapped to proficiency levels, allowing for a more descriptive interpretation of students' knowledge and skills. Figure 3.4 presents the proportion of students performing at each level in PISA 2025 for Ireland, as well as for the OECD and EU, on average; Table B.1 (Appendix B) outlines the types of tasks students can perform at each of the proficiency levels in science.

Figure 3.4. Percentages of students performing at each proficiency level in science in Ireland, the OECD, and the EU (2025)



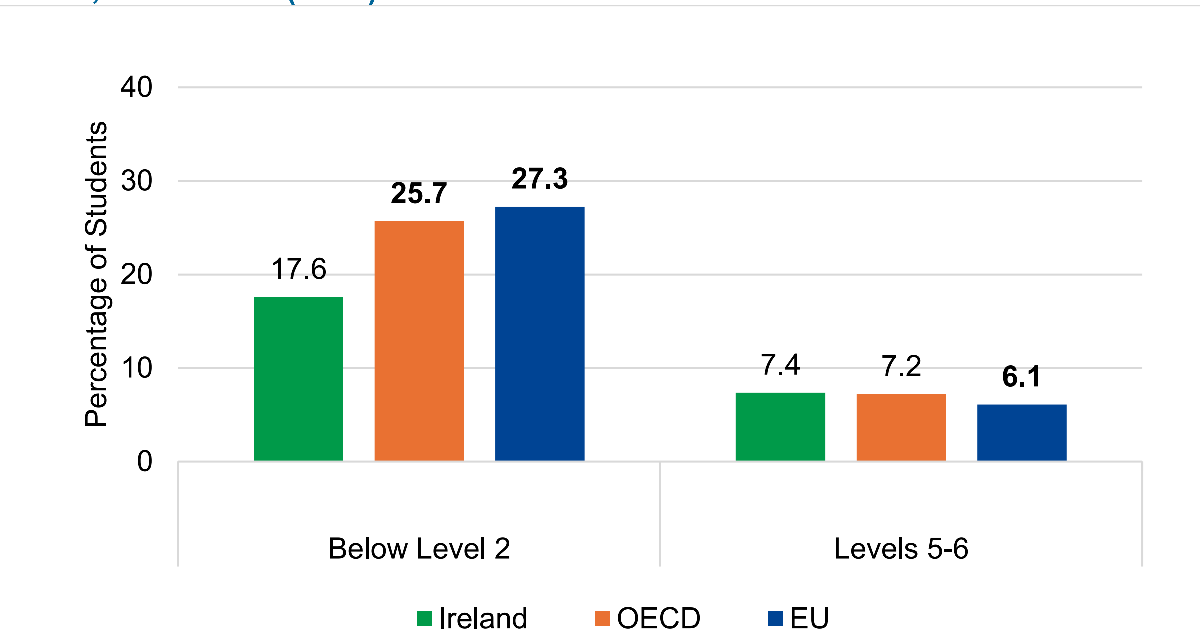
		Below Level 1b	Level 1b	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6
Ireland	%	0.4	3.6	13.6	25.2	29.8	20.1	6.5	0.8
OECD	%	**1.1**	**7.0**	**17.6**	24.9	**25.3**	**16.9**	6.1	**1.1**
EU	%	**1.5**	**7.8**	**17.9**	24.9	**25.4**	**16.4**	**5.3**	0.8

Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

Ireland shows a narrower distribution of student performance with higher proportions of students performing at the middle levels, and fewer at the lower proficiency levels than across the OECD and the EU, on average.

In PISA, Level 2 is considered the baseline level of proficiency students need to participate meaningfully in society. Therefore, students performing below Level 2 are classified as “low performers”, while those performing at Levels 5 and 6 are considered “top performers”. Figure 3.5 presents the percentages of low- and top-performing students in science in PISA 2025 for Ireland and on average across OECD and EU countries. Ireland had a lower share of low performers, compared to both the OECD and EU, on average. Ireland also had a higher proportion of top performers compared to the EU average, but not the OECD average.

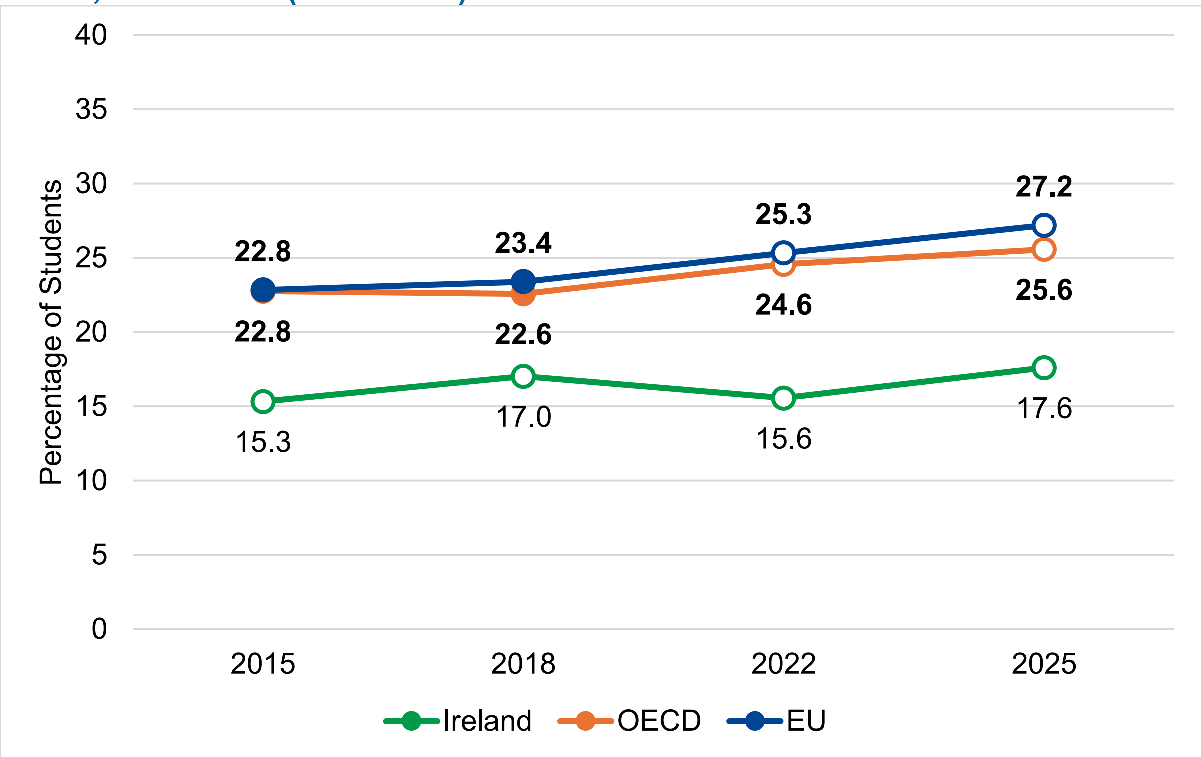
Figure 3.5. Percentages of low and top performers in science in Ireland, the OECD, and the EU (2025)



Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

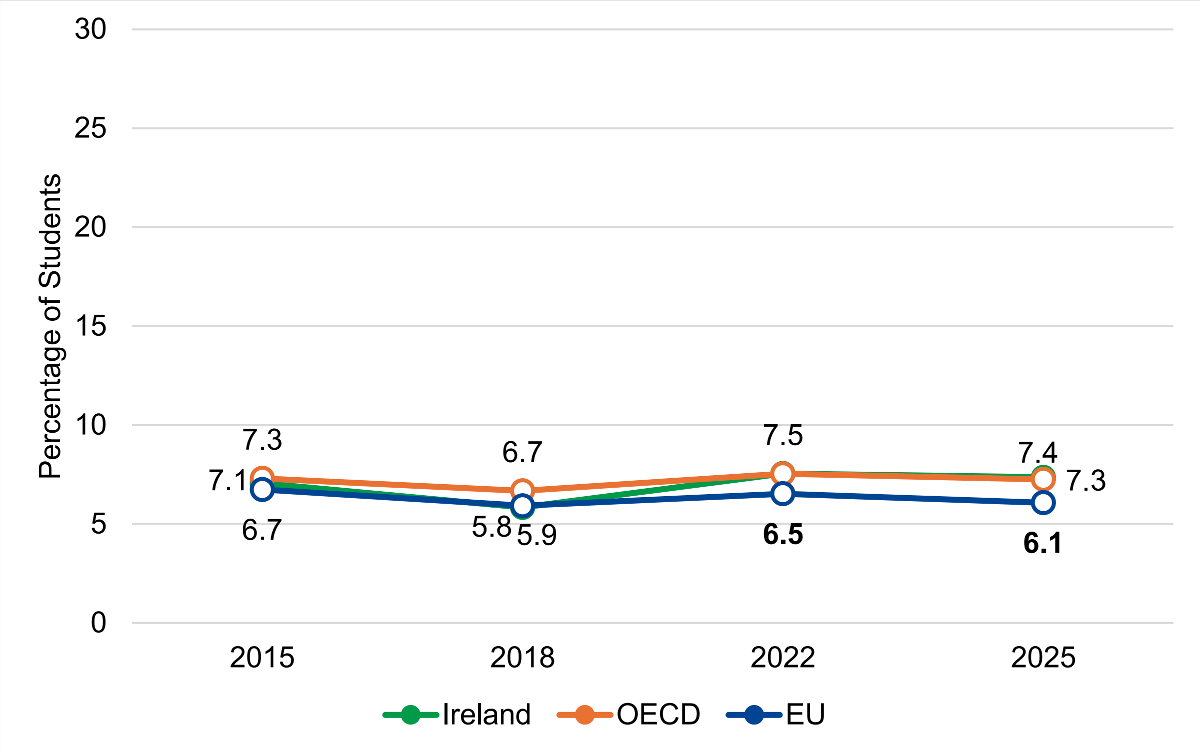
Trends in low and top performance since 2015, when science was last assessed as the major domain, are presented in Figure 3.6 and Figure 3.7. Across the examined cycles, Ireland has consistently had lower proportions of low-performing students than both the OECD and EU averages. However, in all cases, the proportions of low-performing students in science increased in 2025 compared to previous cycles; these increases were not statistically significant between cycles in Ireland, whereas statistically significant increases were observed for both the OECD and the EU in PISA 2025 compared to corresponding scores in 2018 and 2015 (Figure 3.6). The proportion of students performing at the higher proficiency levels in 2025 in Ireland, and on average across OECD and EU countries, did not differ statistically significantly from the corresponding proportions observed in previous cycles examined in this report (Figure 3.7).

Figure 3.6. Trends in percentages of low performers in science in Ireland, the OECD, and the EU (2015–2025)



Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).
The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Figure 3.7. Trends in percentages of top performers in science in Ireland, the OECD, and the EU (2015–2025)



Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).
The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

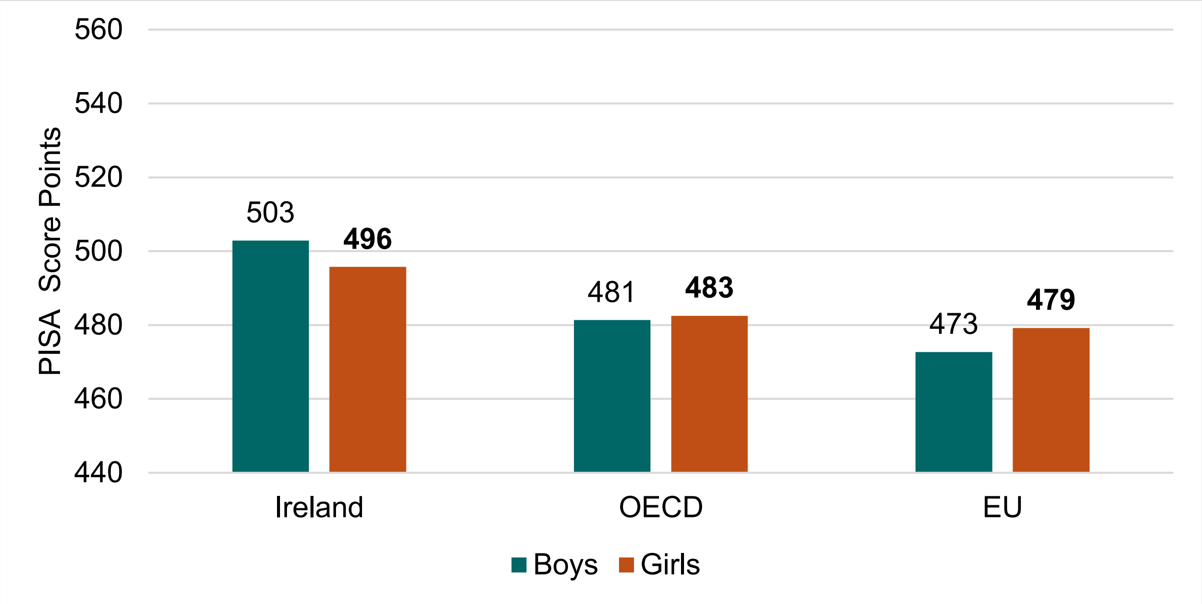
3.4. Performance by selected background and contextual variables

3.4.1. Science performance by gender

Figure 3.8 presents students' overall science performance by gender in Ireland, as well as on average across OECD and EU countries. In Ireland, boys outperformed girls by 7 points on average. In contrast, girls achieved higher mean science scores than boys across the OECD (difference of 1 point) and the EU (difference of 6 points), on average.

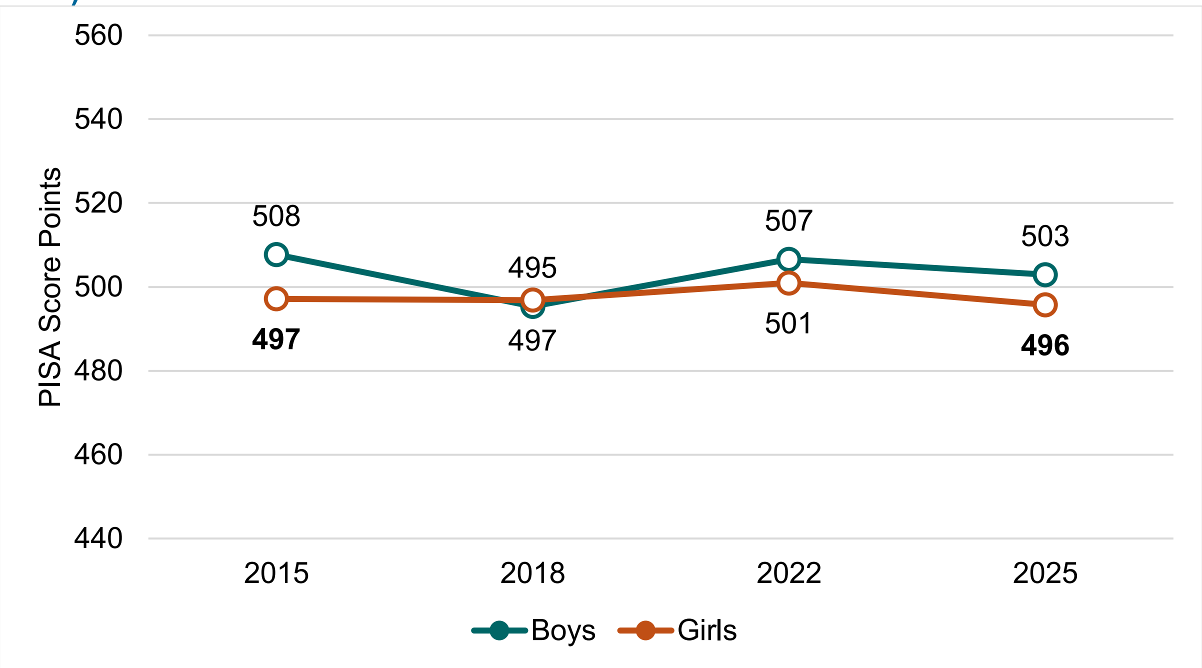
Figure 3.9 presents trends in science performance for boys and girls in Ireland since 2015. Neither gender group saw statistically significant changes in their performance compared to previous cycles. Similar to PISA 2025, the gender gap in favour of boys was statistically significant in 2015; the performance differences in science between boys and girls were not statistically significant in 2018 and 2022.

Figure 3.8. Mean science performance in Ireland, the OECD, and the EU, by gender (2025)



Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

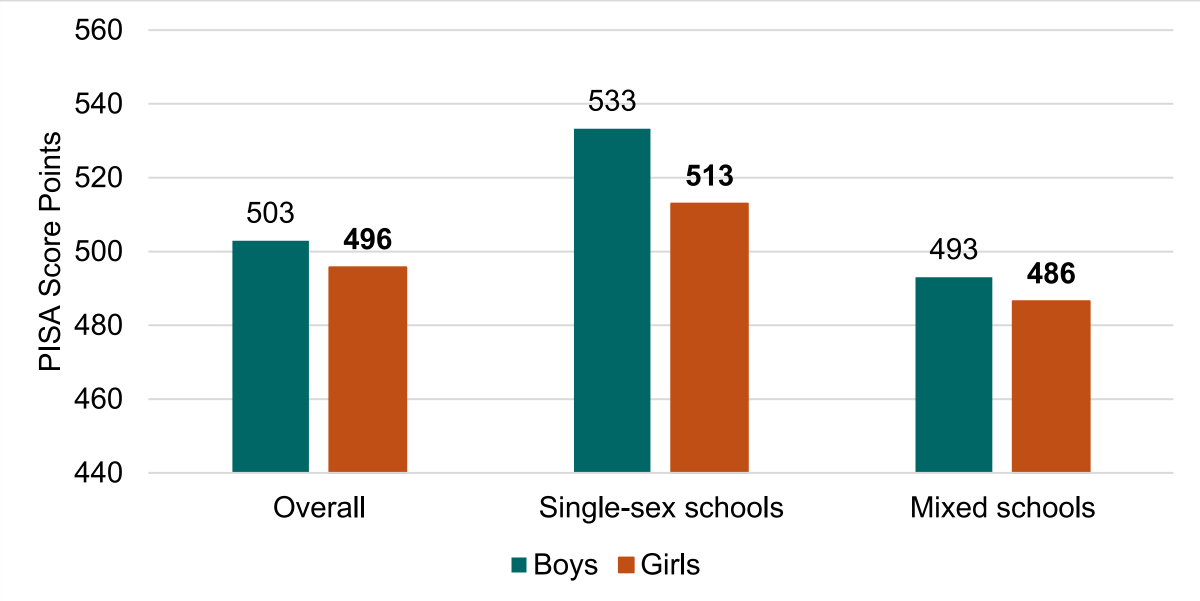
Figure 3.9. Trends in mean science performance in Ireland, by gender (2015–2025)



Notes. Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Given that approximately one third of students participating in PISA 2025 in Ireland attended single-sex schools, gender differences in performance were examined between boys and girls in mixed schools and between students attending single-sex schools. As shown in Figure 3.10, the performance gap in favour of boys was substantially larger among students attending single-sex schools (difference of 20 points), compared to those in mixed schools (difference of 7 points). Both boys and girls in single-sex schools outperformed their peers in mixed schools.[10]

Figure 3.10. Mean science performance for boys and girls in Ireland, by school gender (2025)



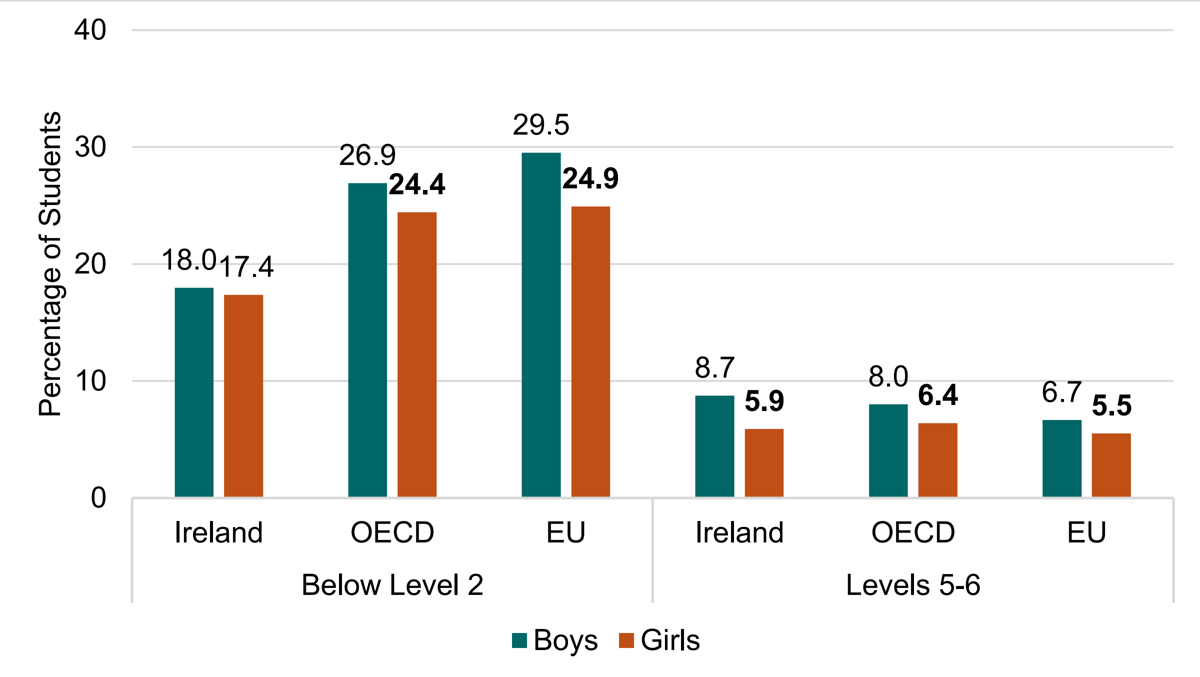
Note. Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

Gender differences in performance were also examined with reference to proficiency levels (Figure 3.11). On average across both OECD and EU countries, boys were more likely than girls to be low performers in science in PISA 2025; this gender difference was not statistically significant in Ireland. In Ireland, where boys performed, on average, better than girls, a larger proportion of boys also performed at the highest levels. On average across the OECD and the EU countries, although girls outperformed boys overall, slightly lower proportions of girls performed at the highest levels; these differences were small but statistically significant.

[10] Additional analysis indicated that the higher mean performance of students attending single-sex schools compared with those attending mixed schools was not fully explained by students' economic, social, and cultural status (ESCS) (Figure C.1, Appendix C). Furthermore, among students attending single-sex schools, the larger gap between boys' and girls' performance (relative to the gender gap in mixed schools) was not explained by differences in ESCS (Figure C.2, Appendix C).

As shown previously (Figure 3.5), when comparing proficiency levels between Ireland and both the OECD and EU averages, a lower proportion of students in Ireland performed below Level 2. Figure 3.11 shows that this pattern applies to both boys and girls. With regard to students performing at Levels 5 and 6, Ireland had a similar proportion of top-performing girls to the OECD and EU averages. The proportion of top-performing boys in Ireland was higher than the EU average, but not statistically significantly different to the OECD average.

Figure 3.11. Percentage of low and top performers in science in Ireland, the OECD, and the EU, by gender composition (2025)

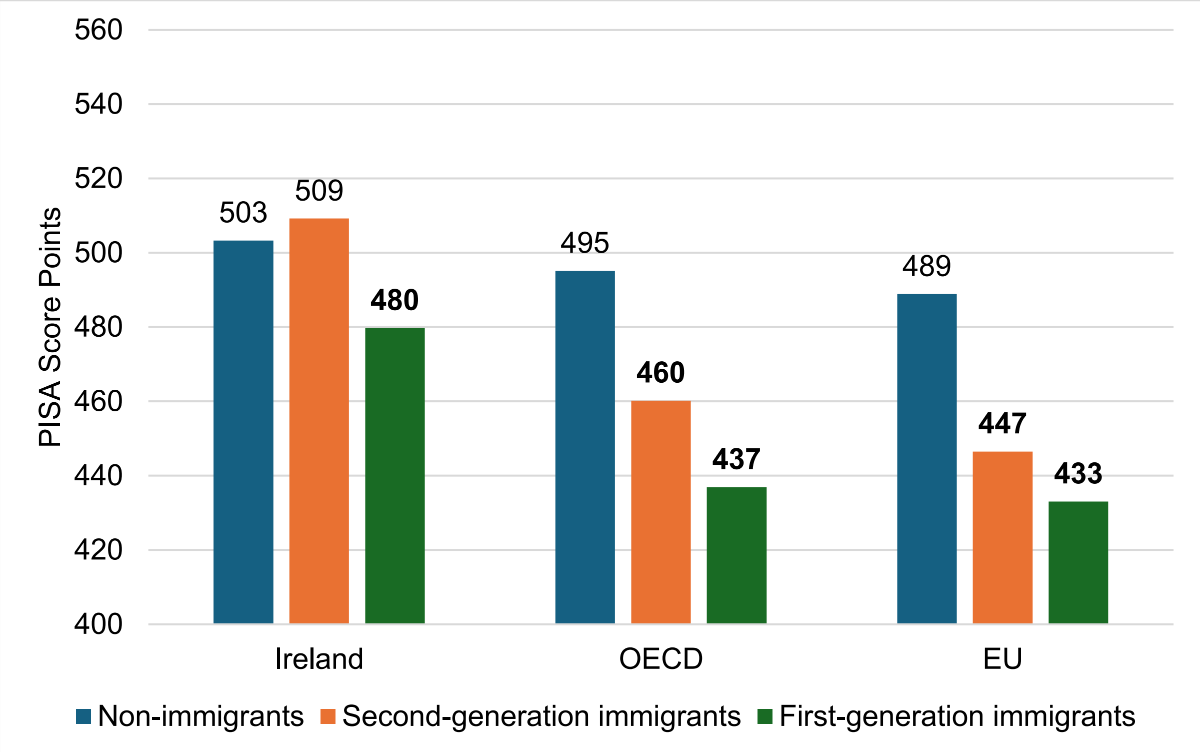


Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

3.4.2. Science performance by immigration status, socio-economic status, and language spoken at home

Overall, in Ireland, non-immigrant and immigrant student groups performed broadly similarly; the performance gap of 7 points in favour of non-immigrant students was not statistically significant (OECD, 2026b). However, a more nuanced pattern emerged when immigrant students were examined by generation status (Figure 3.12). While the mean performance of non-immigrant students in Ireland did not differ statistically significantly from that of second-generation immigrants, non-immigrant students outperformed first-generation immigrant students by 24 points on average. First-generation immigrant students in Ireland were also outperformed by their second-generation immigrant peers by 29 points on average. At the OECD and EU level, non-immigrant students outperformed both second- and first-generation immigrant students in science, with the performance gaps being substantially larger than the gaps observed in Ireland. All three groups in Ireland outperformed their counterparts on average across OECD and EU countries.

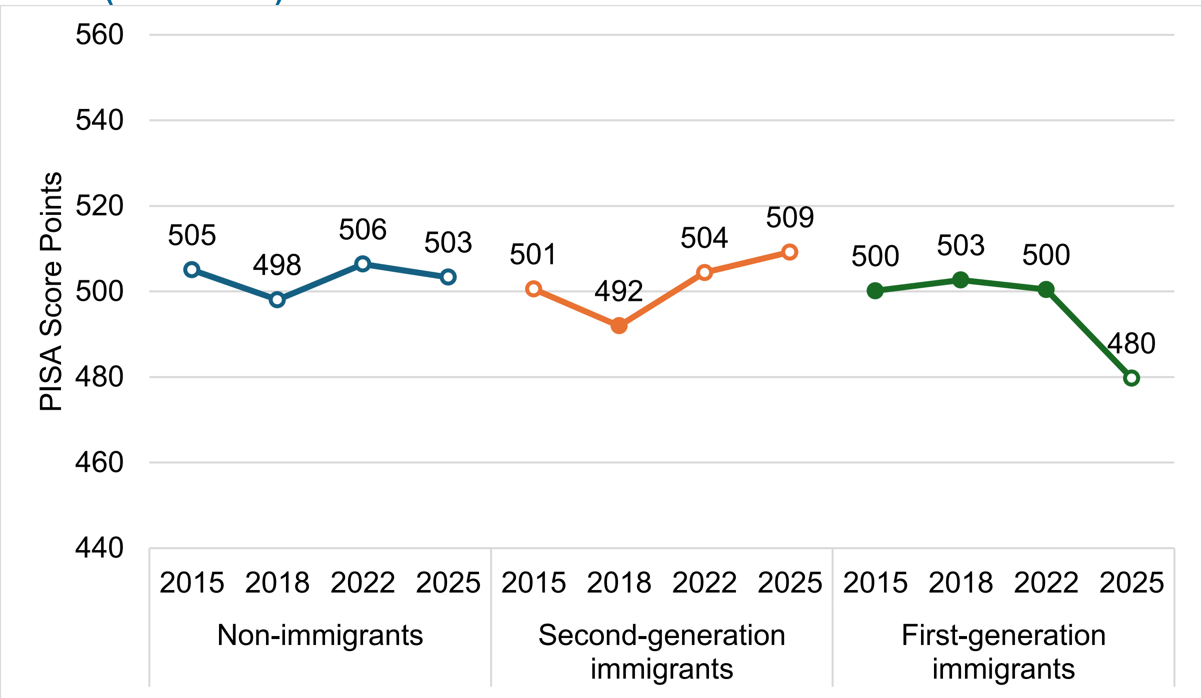
Figure 3.12. Mean science performance in Ireland, the OECD, and the EU, by immigration status (2025)



Notes. The OECD average is the mean across all 37 OECD countries (Costa Rica excluded).
The EU average is the mean across all 27 EU countries.
Estimates for immigrant student groups in bold are statistically significantly different from the corresponding estimates for non-immigrant students.

Figure 3.13 presents trends in science performance for non-immigrant students and for the two groups of immigrant students, each of whose representation in the sample increased in 2025. The science performance of non-immigrant students in Ireland did not change statistically significantly in PISA 2025, compared to previous cycles since 2015. The performance of second-generation immigrant students increased in 2025 compared to 2018, while the performance of first-generation immigrant students declined in 2025 compared to all previous cycles since 2015.

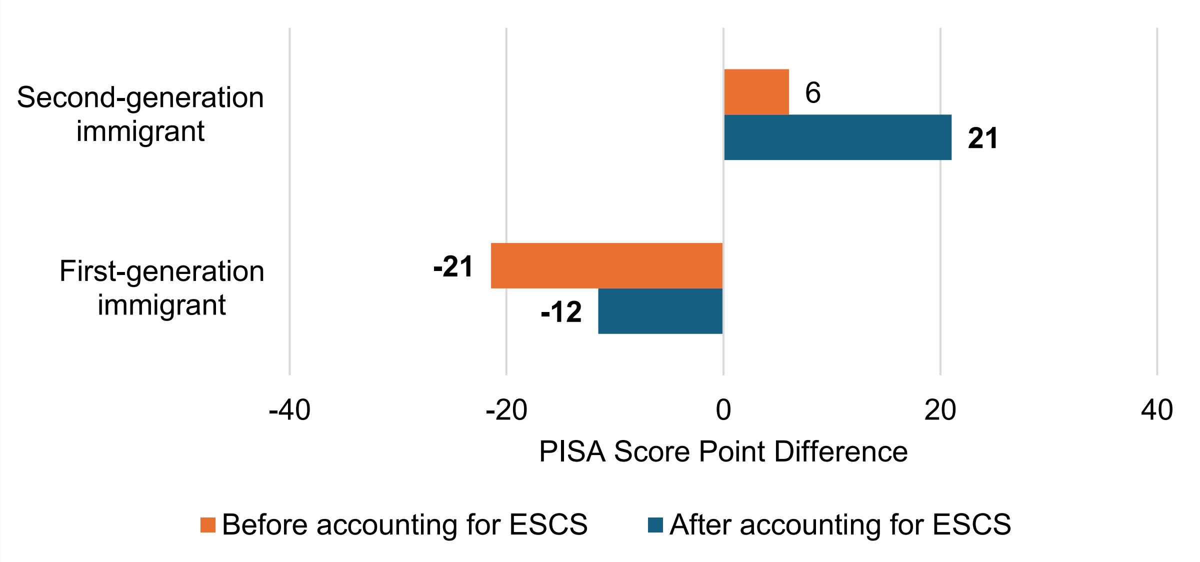
Figure 3.13. Trends in mean science performance in Ireland, by immigration status (2015–2025)



Note. Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Given that students with an immigrant background tend to come from more disadvantaged socio-economic backgrounds (OECD, 2026b), differences in science performance by immigration status were also examined after accounting for socio-economic status, as measured by PISA's index of economic, social, and cultural status (ESCS). Figure 3.14 presents differences in science performance between non-immigrant students and each of the immigrant student groups before and after accounting for ESCS. Second-generation immigrant students, whose mean science performance did not differ statistically significantly from that of non-immigrant students, outperformed their non-immigrant peers after ESCS was taken into account. Additionally, the performance gap between non-immigrant and first-generation immigrant students was reduced after controlling for ESCS, but it remained statistically significant.

Figure 3.14. Differences in mean science performance between non-immigrants and the two immigrant groups in Ireland, before and after accounting for ESCS (2025)

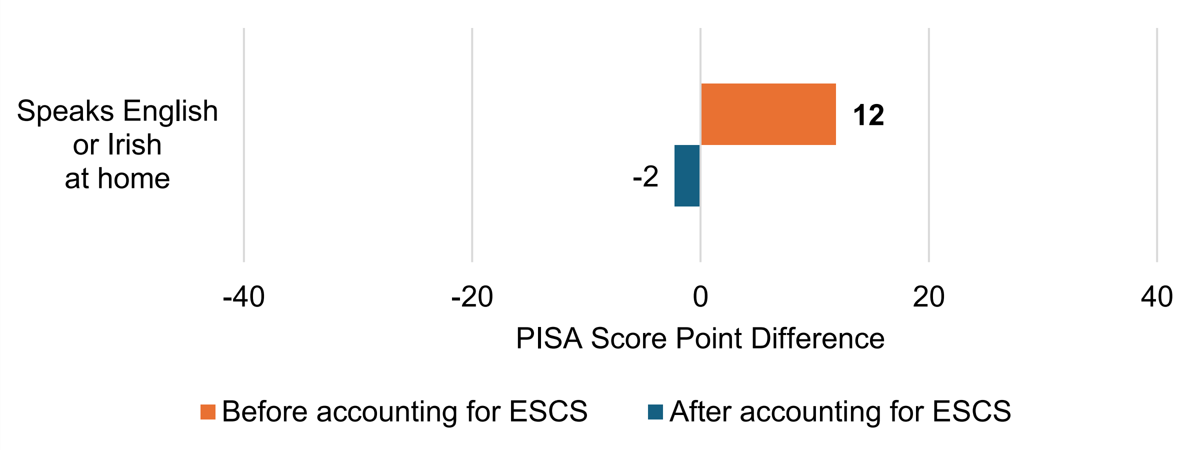


Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Non-immigrant students were used as the reference category.
Differences that are statistically significant are indicated in bold.

Similar to previous cycles, students' ESCS was positively correlated with their performance on the PISA 2025 science assessment in Ireland (r = 0.31, SE = 0.01), as well as across the OECD (r = 0.34, SE = 0.00) and the EU (r = 0.35, SE = 0.00), on average; the correlations were statistically significant and moderate in strength.

Figure 3.15 presents mean science performance gaps in PISA 2025 between students who reported speaking English or Irish most of the time at home and those who reported speaking another language, before and after accounting for ESCS. Students who reported speaking English or Irish at home performed on average better in science than their peers who reported speaking another language. However, after accounting for ESCS, the difference between the two groups was not statistically significant.

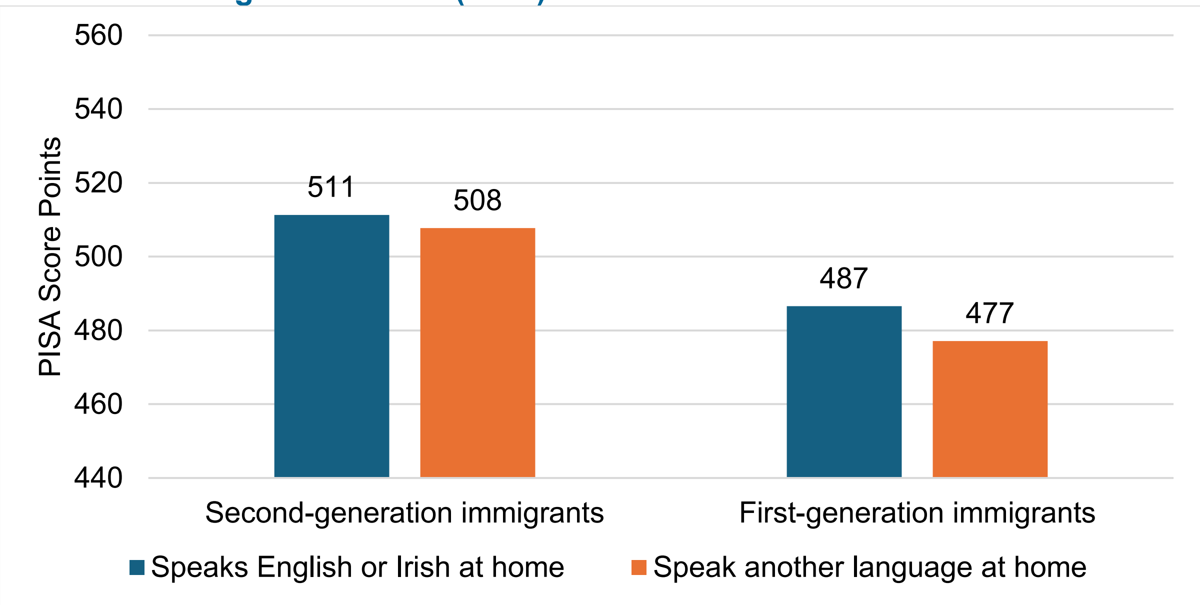
Figure 3.15. Differences in science performance by language spoken at home in Ireland, before and after accounting for ESCS (2025)



Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Students who reported speaking a language other than English or Irish at home were used as the reference category.
Differences that are statistically significant are indicated in bold.

Given that very few non-immigrant students in Ireland reported speaking a language other than English or Irish at home (0.5%), differences in science performance by language spoken at home were examined separately for the two immigrant groups. In both groups, students who reported speaking mostly English or Irish at home performed better, but the differences were not statistically significant (Figure 3.16).

Figure 3.16. Mean science performance in Ireland, by language spoken at home and immigration status (2025)

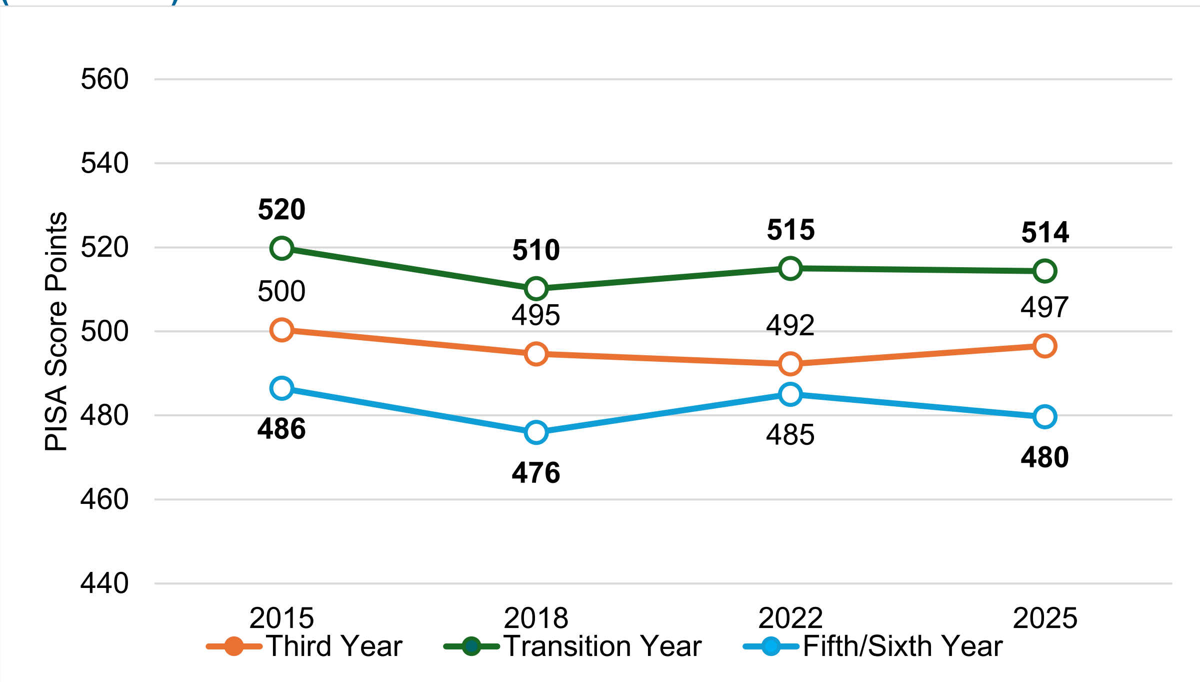


Note. Estimates for students speaking another language in bold are statistically significantly different from the corresponding estimates for students speaking English or Irish at home.

3.4.3. Science performance by grade level

Student science performance in Ireland across the PISA cycles since 2015 was analysed by grade level. Across all examined cycles, Transition Year students performed better, on average, than all other groups, followed by students in Third Year (Figure 3.17). Although some fluctuations in performance were observed across grade groups over time, no statistically significant changes were found in 2025 compared to previous cycles.

Figure 3.17. Trends in mean science performance in Ireland, by grade level (2015–2025)



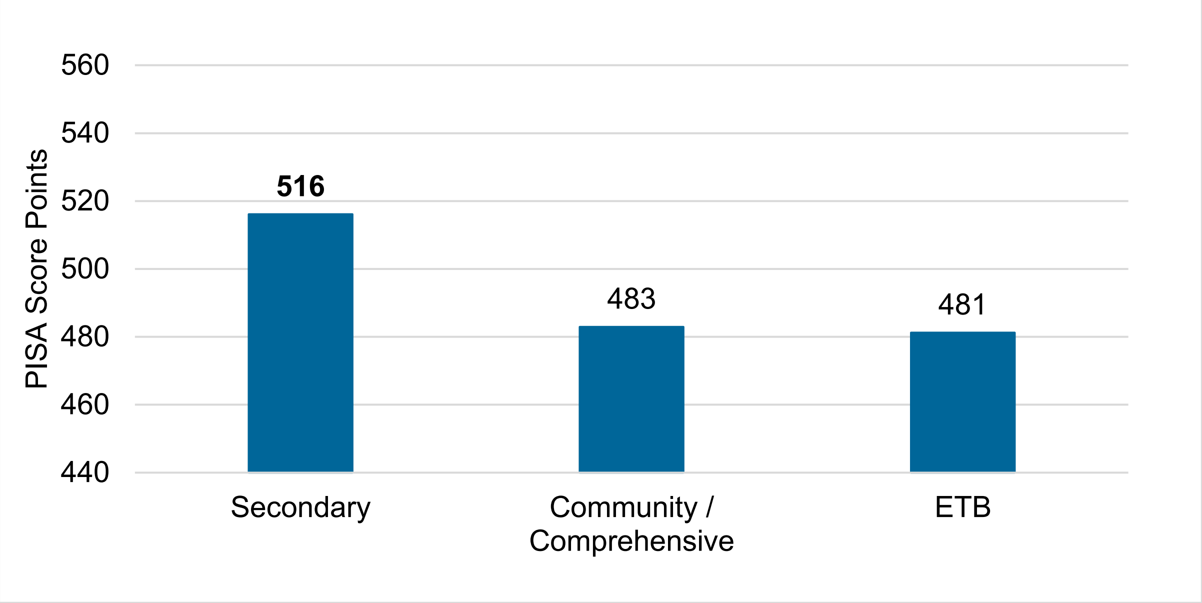
Notes. A very small number of 15-year-old students participating in PISA attended First- and Second-Year classes. Results for these groups are not reported due to the very small number of cases.
Estimates in bold are statistically significantly different from the corresponding estimates for Third-year students.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

3.4.4. Science performance by school type and DEIS status

Student science performance was also examined by school type and DEIS status. Students in secondary schools outperformed their peers in community/comprehensive (by 33 points) and Education and Training Board (ETB) schools (by 35 points) on average, while there was no statistically significant difference in performance between students attending ETB schools and those attending community/comprehensive schools (Figure 3.18). Students attending non-

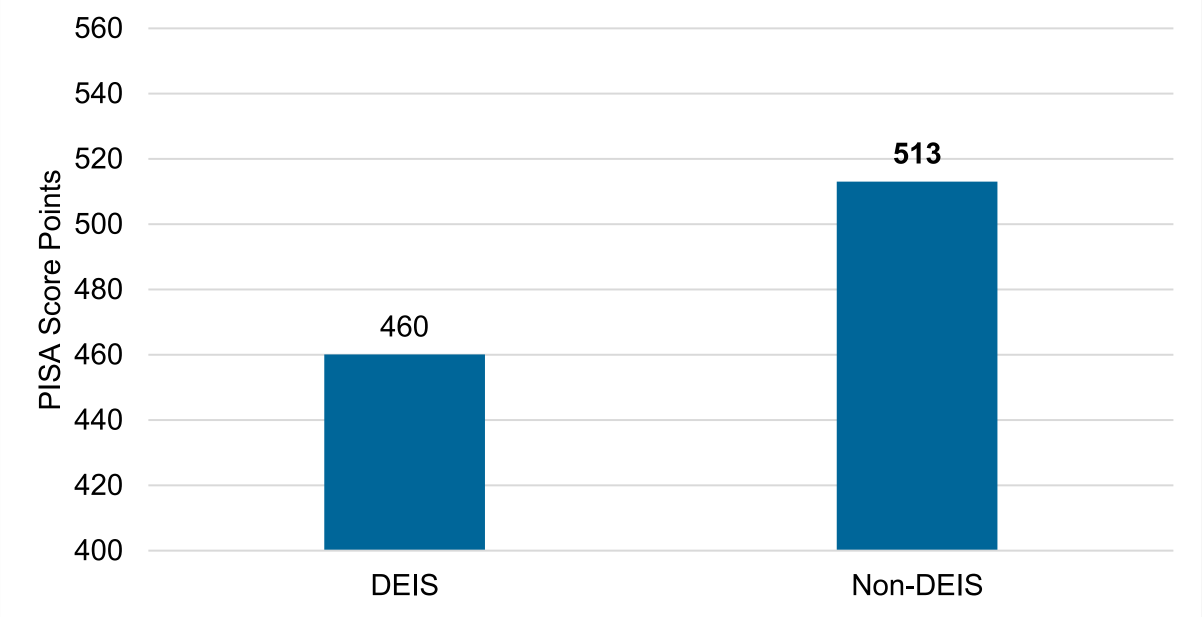
DEIS schools outperformed their peers in DEIS schools in science by 53 points on average (Figure 3.19).

Figure 3.18. Mean science performance in Ireland, by school type (2025)



Note. Estimates for students in secondary and community/comprehensive schools in bold are statistically significantly different from the corresponding estimates for students in ETB schools.

Figure 3.19. Mean science performance in Ireland, by school DEIS status (2025)



Note. Estimates for students in non-DEIS schools in bold are statistically significantly different from the corresponding estimates for students in DEIS schools.

Chapter 4: Performance in reading

This chapter looks at student performance in reading. It examines how students in Ireland and in other participating countries/economies performed in PISA 2025, draws comparisons with previous cycles, and provides reference estimates for comparison countries, as well as for the OECD and the EU. Student performance is also described in terms of proficiency levels. Finally, the chapter examines the relationship between reading performance and key student- and school-level factors.

Unless otherwise specified, all performance differences and changes discussed in this chapter refer to statistically significant differences/changes.

4.1. Overall reading performance

4.1.1. Reading performance in PISA 2025

Table 4.1 presents overall reading performance for all countries/economies participating in PISA 2025 with reported reading scores, as well as the corresponding averages across OECD and EU countries.[11] Ireland achieved a mean score of 500 points in reading, which was higher than both the OECD (461 points) and EU (451 points) averages. The highest-performing country was Singapore, which scored higher than all other participants. Japan had the highest mean score among OECD countries (although this score was not statistically significantly different to the mean scores achieved by Korea, Ireland, Estonia, New Zealand, nor the United States). Ireland had the highest mean score in the EU, outperforming all other EU countries, with the exception of Estonia, where the difference was not statistically significant.

[11] The OECD decided not to report results on reading and mathematics performance for Uzbekistan due to a number of inconsistencies identified in the response data for these two domains. The response data for the domains of science and learning in the digital world did not show the same issues and were used in reporting (OECD, 2026b).

Table 4.1. Mean reading performance for all countries/economies, the OECD, and the EU (2025)

Country	Mean	SE	SD	IRL
Singapore	535	(1.9)	114	↑
B-S-J-Z (China)	527	(2.0)	80	↑
Chinese Taipei	508	(2.9)	109	↑
Japan	503	(3.8)	105	↔
Macao (China)	501	(1.2)	89	↔
Korea	501	(3.4)	104	↔
Ireland	500	(2.0)	94	
Estonia	499	(2.5)	95	↔
New Zealand*	497	(2.4)	114	↔
United Kingdom	494	(2.0)	99	↓
Australia	491	(1.9)	111	↓
Canada*	490	(1.8)	105	↓
United States*	490	(5.8)	121	↔
Poland	482	(2.8)	102	↓
Hong Kong (China)	480	(3.2)	96	↓
Finland	474	(2.1)	102	↓
Italy	474	(2.6)	95	↓
Türkiye	472	(2.3)	91	↓
Switzerland	470	(2.9)	106	↓
Czechia	468	(2.7)	98	↓
Austria	467	(2.6)	100	↓
Sweden	466	(3.1)	115	↓
Belgium	466	(3.0)	106	↓
Germany	465	(3.6)	110	↓
Lithuania	464	(1.9)	95	↓
Portugal	462	(3.2)	95	↓
Denmark	460	(2.4)	96	↓
France	456	(3.2)	105	↓
Croatia	453	(1.8)	96	↓
Norway*	453	(2.1)	108	↓
Hungary	452	(2.3)	96	↓
Spain	451	(1.9)	94	↓
Slovak Republic	448	(2.6)	100	↓
Slovenia	445	(1.3)	104	↓
Luxembourg	443	(1.1)	108	↓
Netherlands*	441	(2.9)	112	↓
Israel	436	(3.5)	116	↓
Chile	436	(2.8)	94	↓
United Arab Emirates	433	(1.6)	114	↓
Latvia	430	(2.0)	100	↓
Brunei Darussalam	426	(0.9)	95	↓
Uruguay	423	(2.0)	97	↓
Greece	423	(3.2)	95	↓
Iceland	422	(1.6)	103	↓
Ukraine	418	(2.5)	89	↓
Montenegro	418	(1.2)	87	↓
Qatar	418	(1.4)	105	↓
Costa Rica	416	(2.8)	85	↓
Malta	415	(1.6)	109	↓
Serbia	415	(3.4)	97	↓
Romania	413	(4.0)	99	↓
Brazil	408	(2.0)	97	↓
Mexico	408	(2.2)	79	↓
Albania*	408	(2.6)	74	↓
Mauritius	405	(3.5)	87	↓
Moldova	404	(2.9)	85	↓
Colombia	399	(3.3)	91	↓
Malaysia	393	(2.2)	81	↓
Thailand	392	(3.0)	74	↓
Viet Nam	392	(3.7)	76	↓
Peru	390	(2.9)	87	↓
Argentina	389	(2.7)	91	↓
Saudi Arabia	387	(2.4)	77	↓
Bulgaria	387	(3.9)	104	↓
Ecuador	385	(2.3)	81	↓
Kazakhstan	385	(1.5)	77	↓
Georgia	384	(2.5)	84	↓
Cyprus	379	(1.3)	106	↓
Mongolia	374	(1.7)	71	↓
Azerbaijan	374	(2.8)	84	↓
Dushanbe (Tajikistan)	368	(1.2)	49	↓
Philippines	367	(2.4)	83	↓
El Salvador	366	(2.3)	80	↓
Indonesia	365	(2.5)	69	↓
Jordan	363	(2.1)	69	↓
North Macedonia	357	(1.0)	78	↓
Paraguay	352	(2.0)	78	↓
Palestinian Authority	350	(1.9)	75	↓
Armenia	348	(1.5)	68	↓
Cambodia	347	(1.5)	57	↓
Dominican Republic	346	(2.5)	82	↓
Kyrgyzstan	344	(2.4)	74	↓
Kosovo	340	(1.3)	66	↓
Guatemala	337	(2.5)	72	↓
Lebanon	331	(3.3)	97	↓
Zambia	325	(8.2)	85	↓
Morocco	321	(3.5)	74	↓
Kenya	320	(2.7)	69	↓
Kurdistan Region (Iraq)	312	(2.0)	66	↓
Rwanda	301	(2.0)	48	↓
OECD average	461	(0.4)	101	↓
EU average	451	(0.5)	101	↓

(green)	Statistically significantly above OECD average	↑	Statistically significantly above Ireland
(white)	At OECD average	↔	Not different from Ireland
(blue)	Statistically significantly below OECD average	↓	Statistically significantly below Ireland

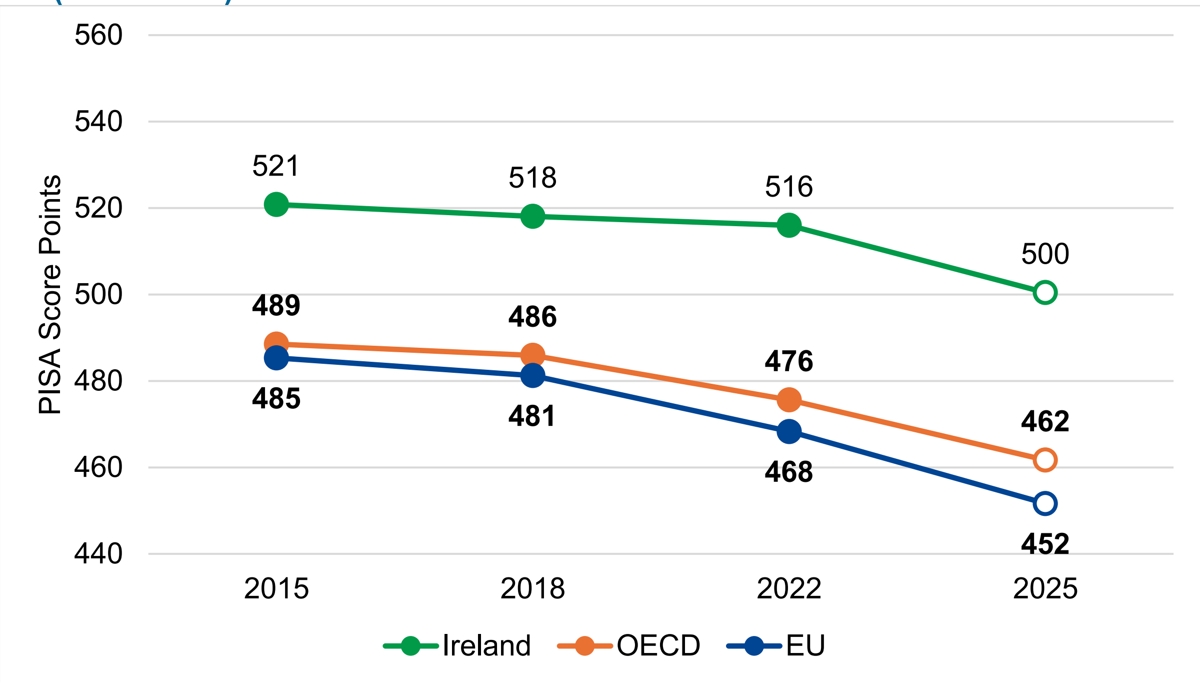
Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
*Caution is required when interpreting estimates for this country/economy because one or more PISA sampling standards were not met.

Of all countries/economies that participated in PISA 2025, only three had mean reading scores that were higher than that of Ireland, a further six countries/economies had mean reading scores that did not differ statistically significantly from that of Ireland, with the remaining 80 countries/economies having lower mean reading scores. No country in the OECD or the EU had a mean reading score that was higher than that of Ireland.[12] [13]

Trends in reading performance

Figure 4.1 presents trends in reading performance for Ireland, as well as for the OECD and EU averages, focusing on PISA cycles since 2015. Across all examined cycles, Ireland has performed above the OECD and EU averages.

Figure 4.1. Trends in mean reading performance in Ireland, the OECD, and the EU (2015–2025)



Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).
The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

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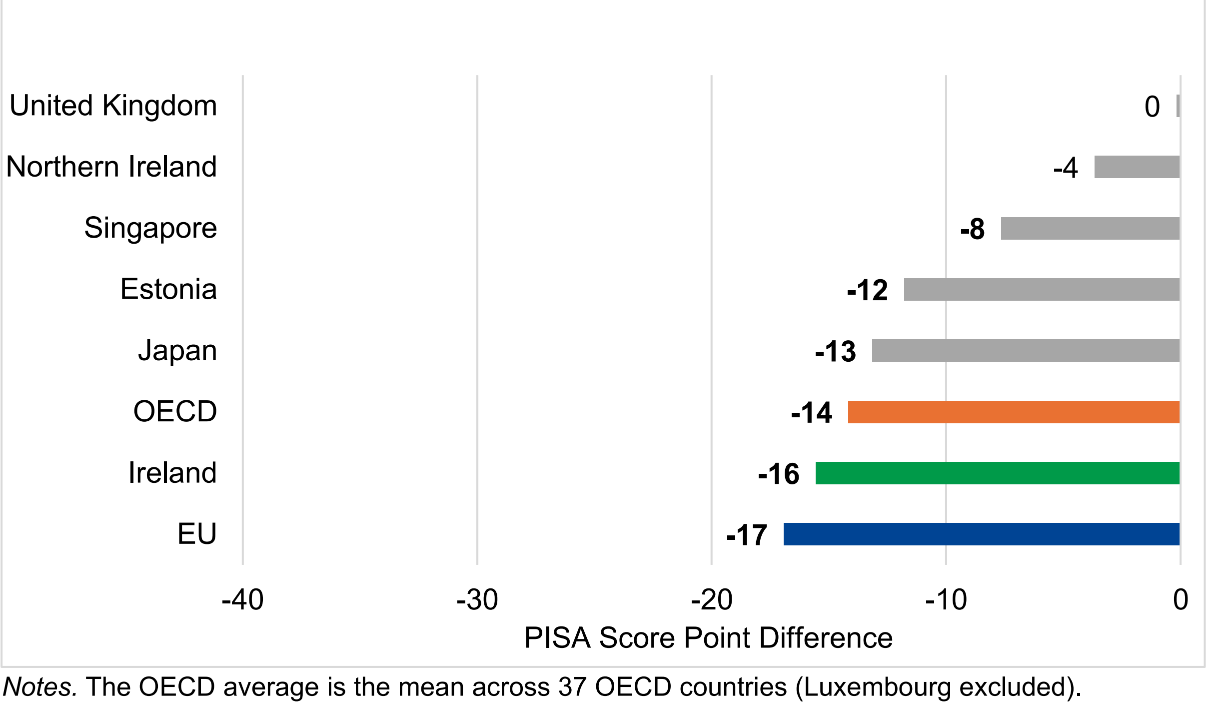
[12] The mean reading score for Northern Ireland was 482, which is statistically significantly lower than Ireland's mean score.
[13] Ireland's rank in reading is estimated to range from 3rd to 11th among all participating countries/economies and from 1st to 7th among OECD countries (OECD, 2026b, Table 1.2.o4).

For Ireland and across OECD and EU countries, on average, performance in reading has declined in PISA 2025, compared to 2015, 2018, and 2022. These declines were more pronounced at the EU level, where the differences in performance between 2025 and both 2015 and 2018 were larger than those observed in Ireland. Trend performance estimates from PISA 2000, the first cycle in which reading was assessed as a major domain, are presented in Figure A.2 (Appendix A).

Figure 4.2 presents the changes in mean reading scores between PISA 2022 and 2025 for Ireland, selected comparison countries, and the OECD and EU averages. Comparison countries participated in both cycles and were selected based on their performance in PISA 2025 (the highest-performing country globally [Singapore], within the OECD [Japan], and similar performance in the EU [Estonia]), or as neighbouring education systems for contextual comparison (the United Kingdom and Northern Ireland). On average across OECD and EU countries, reading performance declined between 2022 and 2025. This was true for all comparison countries, with the exception of Northern Ireland, where the decline was not statistically significant, and the United Kingdom, where no change was observed.

Figure 4.2. Change in mean reading performance in Ireland, selected comparison countries, the OECD, and the EU (2022–2025)

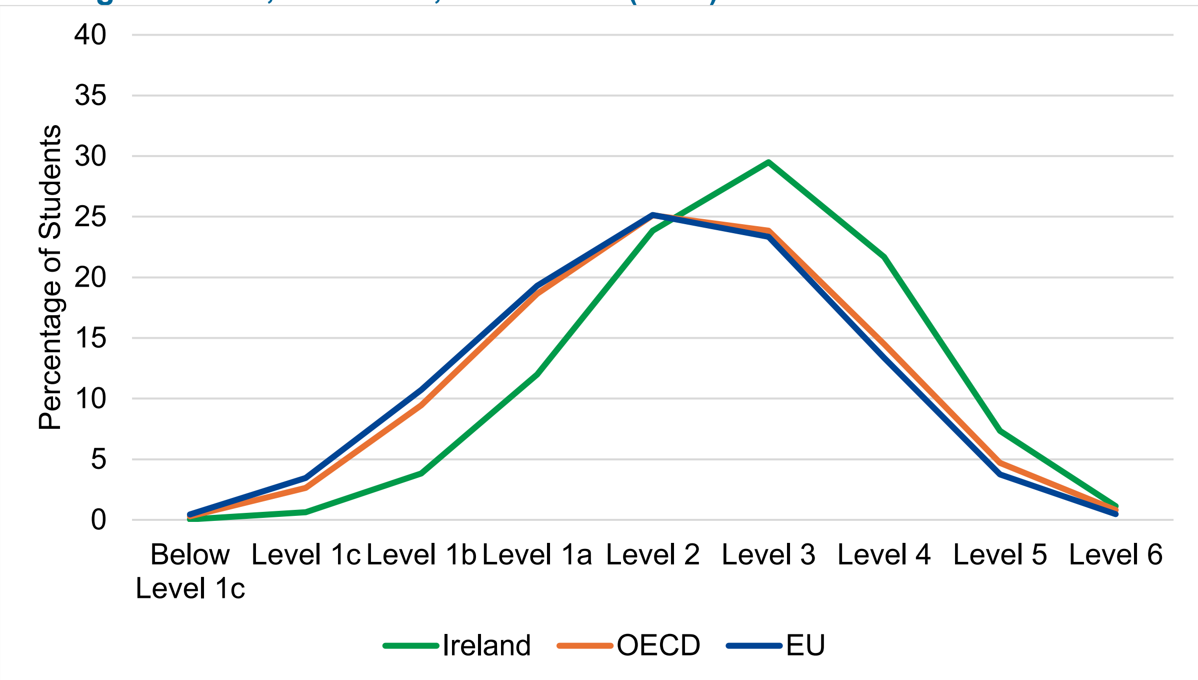


Notes. The OECD average is the mean across 37 OECD countries (Luxembourg excluded).
The EU average is the mean across 26 EU countries (Luxembourg excluded).
Changes that are statistically significant are indicated in bold.

4.2. Performance on reading proficiency levels

PISA scores can be mapped to proficiency levels, allowing for a more descriptive interpretation of students' knowledge and skills. Figure 4.3 presents the proportion of students performing at each level in PISA 2025 for Ireland, as well as for the OECD and the EU; Table B.2 (Appendix B) outlines the types of tasks students can perform at each of the proficiency levels in reading. In Ireland, the distribution of students across proficiency levels was both less dispersed and more skewed towards higher proficiency levels compared to the distribution of performance across the OECD and the EU, with higher proportions of students performing at the middle and higher levels.

Figure 4.3. Percentages of students performing at each proficiency level in reading in Ireland, the OECD, and the EU (2025)

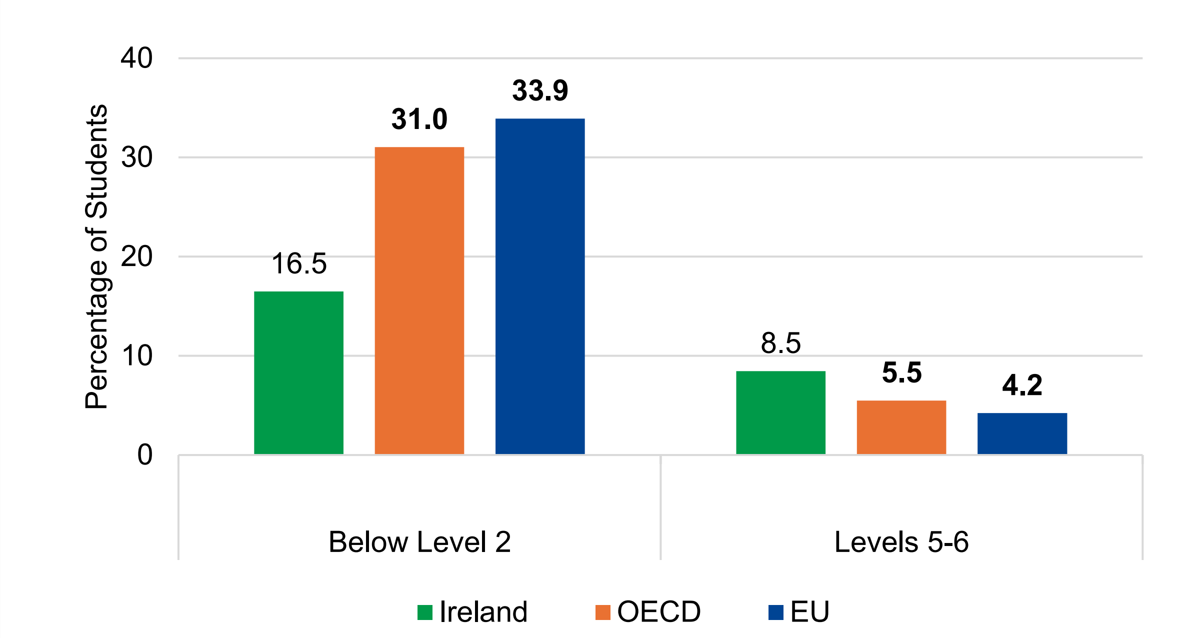


		Below Level 1c	Level 1c	Level 1b	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6
Ireland	%	0.0	0.6	3.8	12.0	23.8	29.5	21.7	7.3	1.1
OECD	%	**0.3**	**2.6**	**9.5**	**18.6**	25.1	**23.8**	**14.5**	**4.7**	0.8
EU	%	**0.4**	**3.5**	**10.7**	**19.3**	25.1	**23.3**	**13.4**	**3.7**	**0.5**

Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

In PISA, Level 2 is considered the baseline level of proficiency students need to participate meaningfully in society. Therefore, students performing below Level 2 are classified as "low performers", while those performing at Levels 5 and 6 are classified as “top performers”. Figure 4.4 presents the percentages of low- and top-performing students in reading in PISA 2025 for Ireland, the OECD and the EU. Ireland had a lower proportion of low performers and a higher proportion of top performers compared to both the OECD and EU averages.

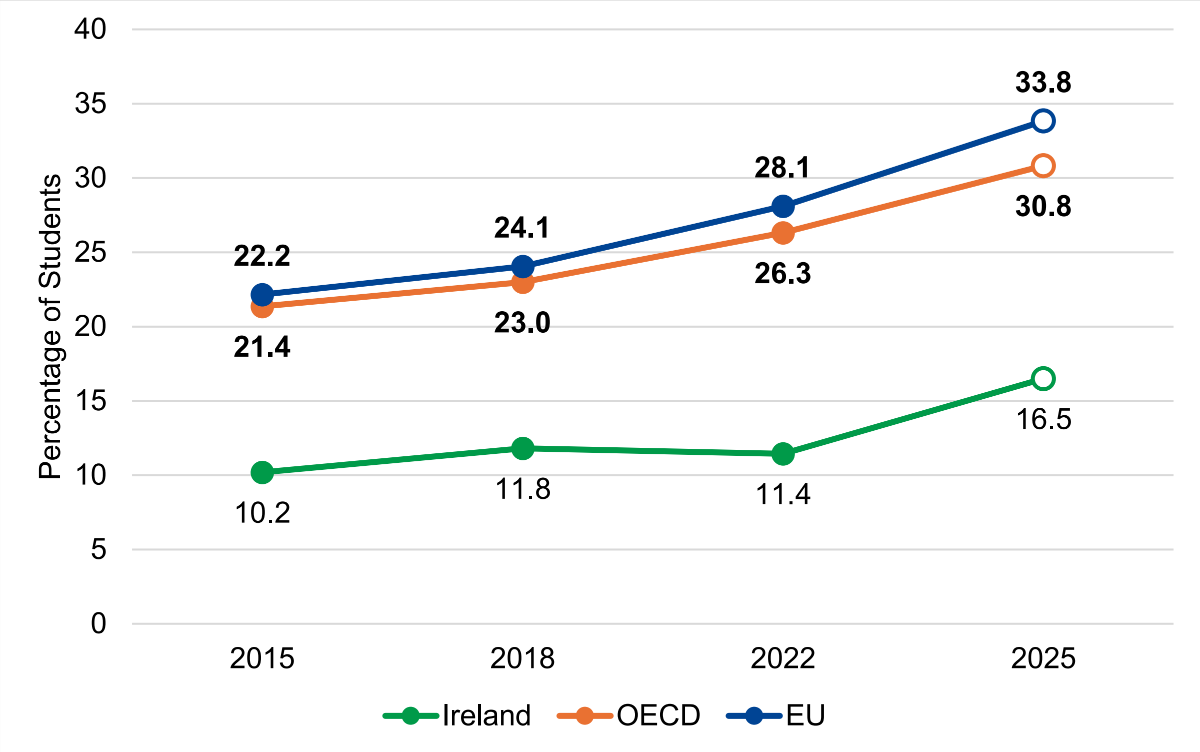
Figure 4.4. Percentages of low and top performers in reading in Ireland, the OECD, and the EU (2025)



Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

Trends in low and top performance in reading since 2015 are presented in Figure 4.5 and Figure 4.6. Across the examined cycles, Ireland has consistently had lower proportions of low-performing students and higher proportions of top-performing students than both the OECD and EU averages. However, for PISA 2025, in all cases, the proportions of students performing at Levels 5 and 6 in reading have declined from previous cycles, while the proportions of students performing below Level 2 have increased; these changes were statistically significant in Ireland and on average across the OECD and the EU.

Figure 4.5. Trends in percentages of low performers in reading in Ireland, the OECD, and the EU (2015–2025)



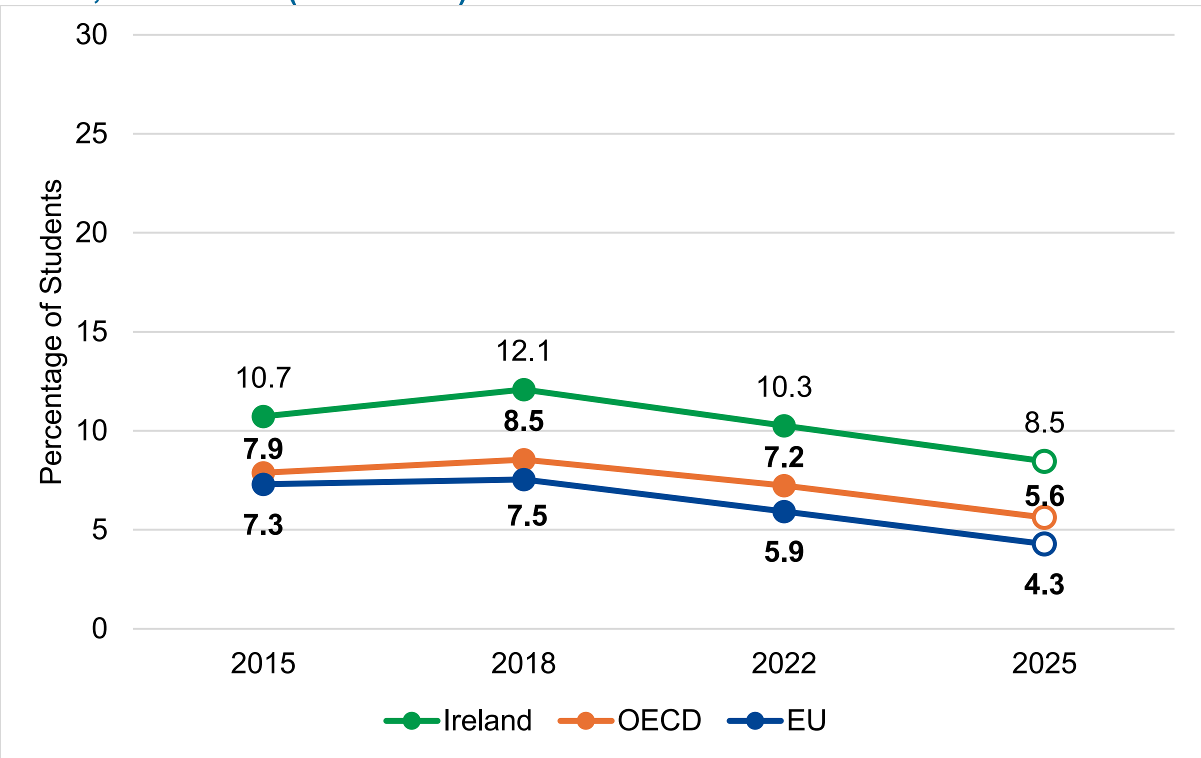
Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).

The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).

OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Figure 4.6. Trends in percentages of top performers in reading in Ireland, the OECD, and the EU (2015–2025)



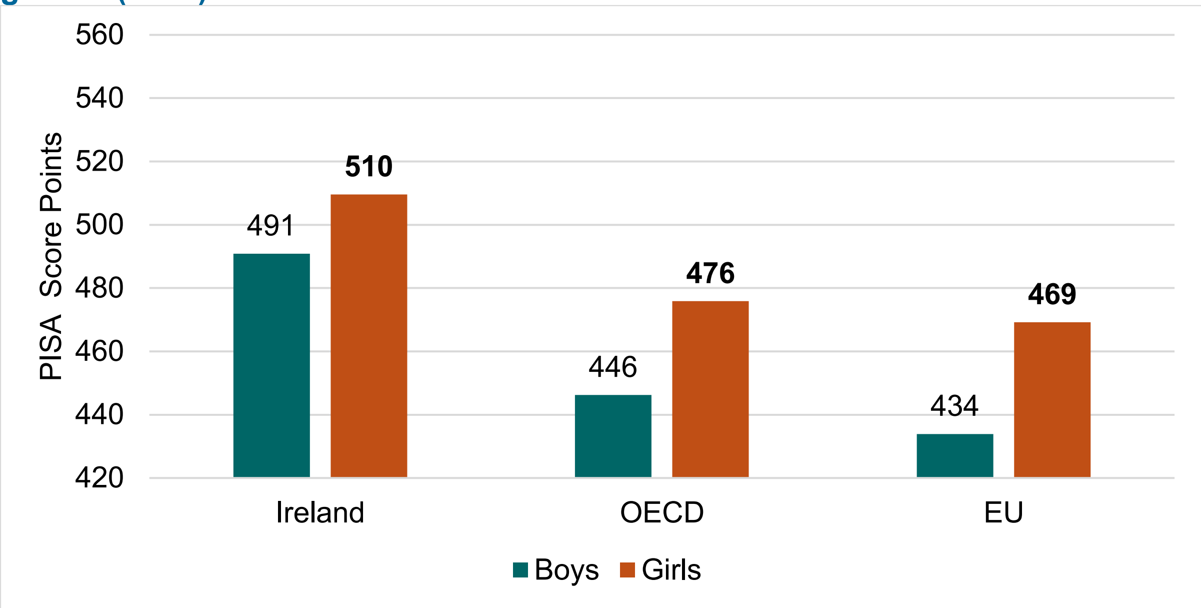
Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).
The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

4.3. Performance by selected background and contextual variables

4.3.1. Reading performance by gender

Figure 4.7 presents students' overall reading performance by gender in Ireland, as well as on average across OECD and EU countries. In Ireland, girls outperformed boys by 19 points on average. Similarly, girls achieved higher mean scores than boys across the OECD (difference of 30 points) and the EU (difference of 35 points). The gender gap in reading performance was smaller in Ireland compared to OECD and EU averages.

Figure 4.7. Mean reading performance in Ireland, the OECD, and the EU, by gender (2025)



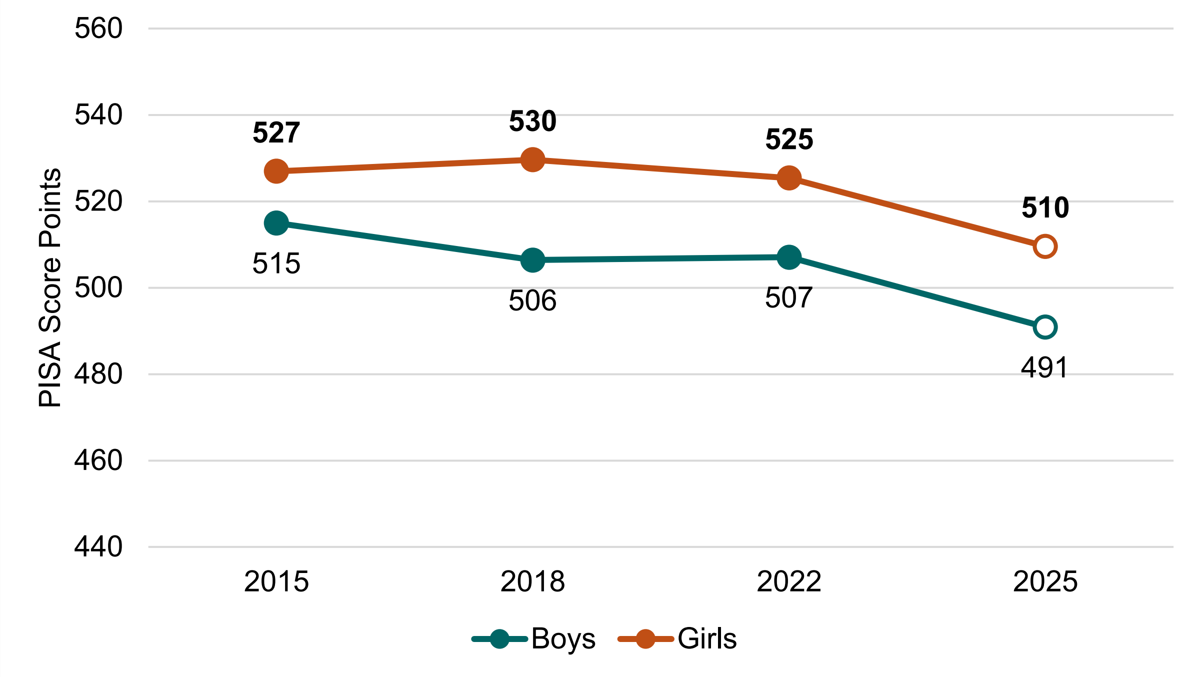
Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

Figure 4.8 presents trends in reading performance for boys and girls in Ireland since 2015. The results show a pattern of declining performance in reading for both gender groups, with 2025 scores being lower than each of the previous cycles for both boys and girls. Girls performed better, on average, than boys in all examined cycles, and the performance gap remained stable in 2025 compared to previous cycles.

Given that approximately one third of students participating in PISA 2025 in Ireland attended single-sex schools, gender differences in performance were examined between boys and girls in mixed schools and between students attending single-sex schools. As shown in Figure 4.9, the gender performance gap was smaller and statistically non-significant among students attending single-sex schools (difference of 5 points), while it was larger and statistically significant between boys and girls in mixed schools (difference of 20 points). Both boys and girls in single-sex schools outperformed their peers in mixed schools.[14]

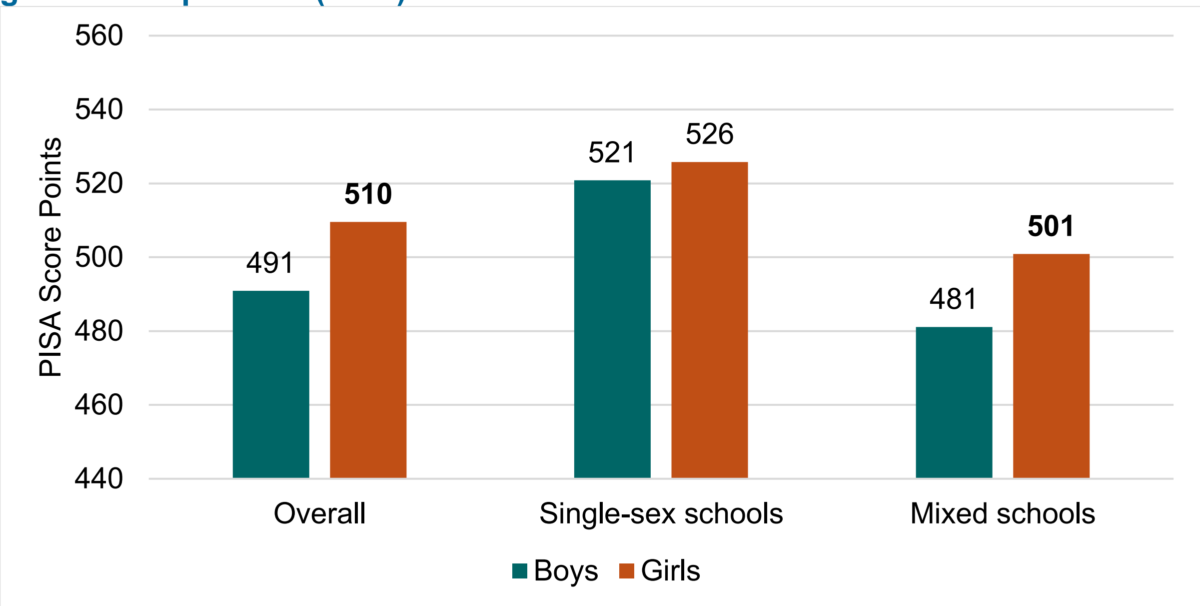
[14] Additional analysis indicated that the higher mean performance of students attending single-sex schools compared with those attending mixed schools was not fully explained by students' ESCS (Figure C.1, Appendix C). Furthermore, among students attending single-sex schools, the smaller gap between boys' and girls' performance (relative to the gender gap in mixed schools) was not explained by differences in ESCS (Figure C.2, Appendix C).

Figure 4.8. Trends in mean reading performance in Ireland, by gender (2025)



Notes. Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

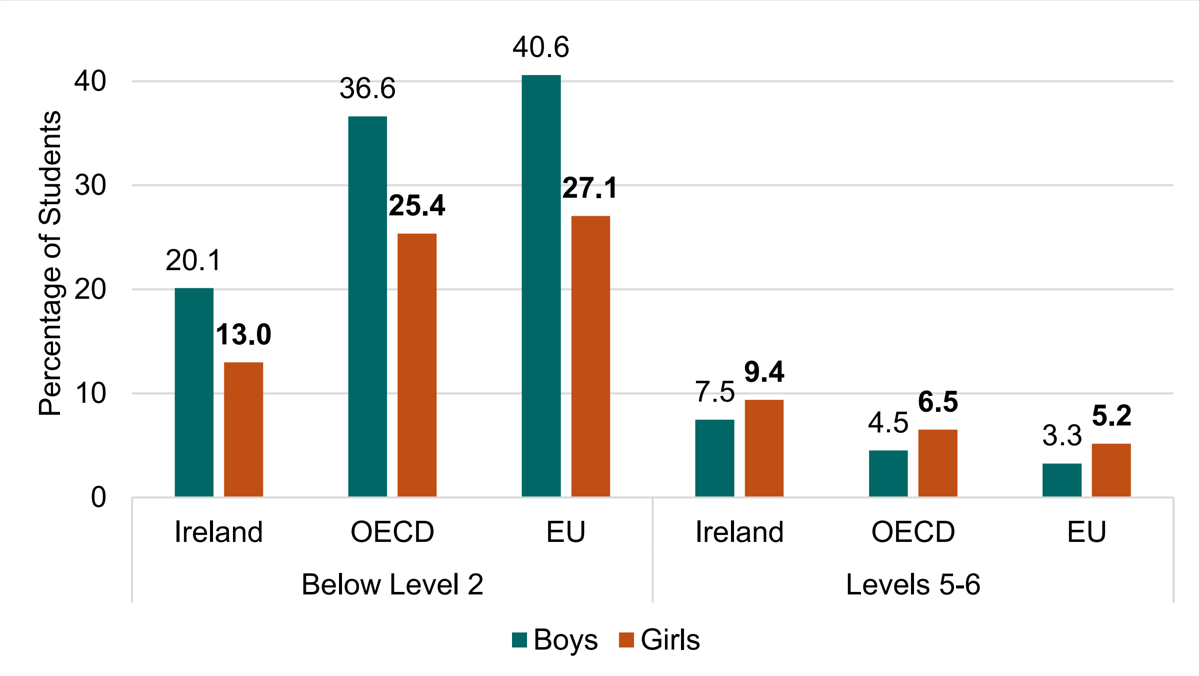
Figure 4.9. Mean reading performance for boys and girls in Ireland, by school gender composition (2025)



Note. Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

Gender differences in performance were also examined across proficiency levels (Figure 4.10). In Ireland, and across both OECD and EU countries on average, boys were more likely than girls to be low performers in reading, while they were also less likely than girls to be top performers. As shown previously (Figure 4.4), when comparing proficiency levels between Ireland and both the OECD and EU averages, a lower proportion of students in Ireland performed below Level 2 and a higher proportion performed at Levels 5 and 6. Figure 4.10 shows that this pattern applies to both boys and girls.

Figure 4.10. Percentage of low and top performers in reading in Ireland, the OECD, and the EU, by gender (2025)

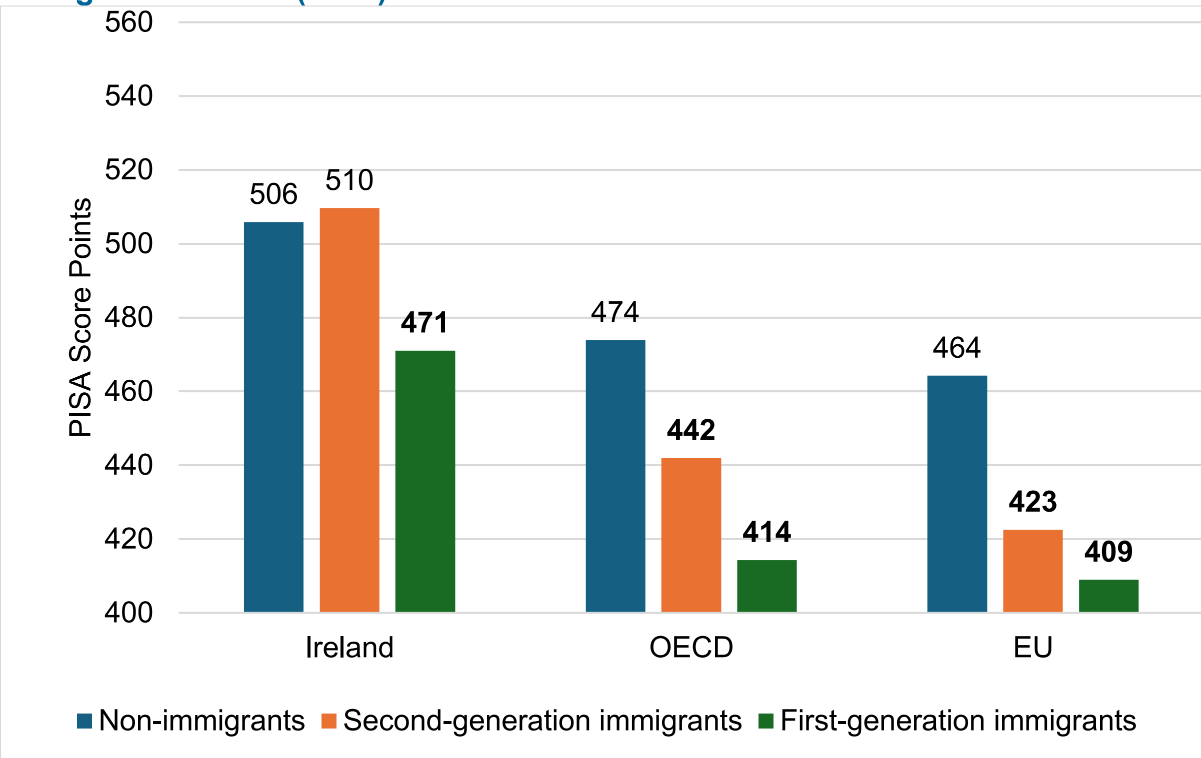


Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

4.3.2. Reading performance by immigration status, socio-economic status, and language spoken at home

Overall, in Ireland, non-immigrant students outperformed immigrant students by 13 points on average (OECD, 2026b). A more nuanced pattern emerged when immigrant students were examined by generation status (Figure 4.11). There was no statistically significant difference in mean reading performance between non-immigrant and second-generation immigrant students. However, non-immigrants outperformed first-generation immigrants by 35 points on average. First-generation immigrant students in Ireland were also outperformed by their second-generation immigrant peers by 39 points on average. Across the OECD and the EU, non-immigrant students outperformed both second- and first-generation immigrant students in reading, with the performance gaps being substantially larger than the gaps observed in Ireland. All three groups in Ireland outperformed their peers on average across OECD and EU countries.

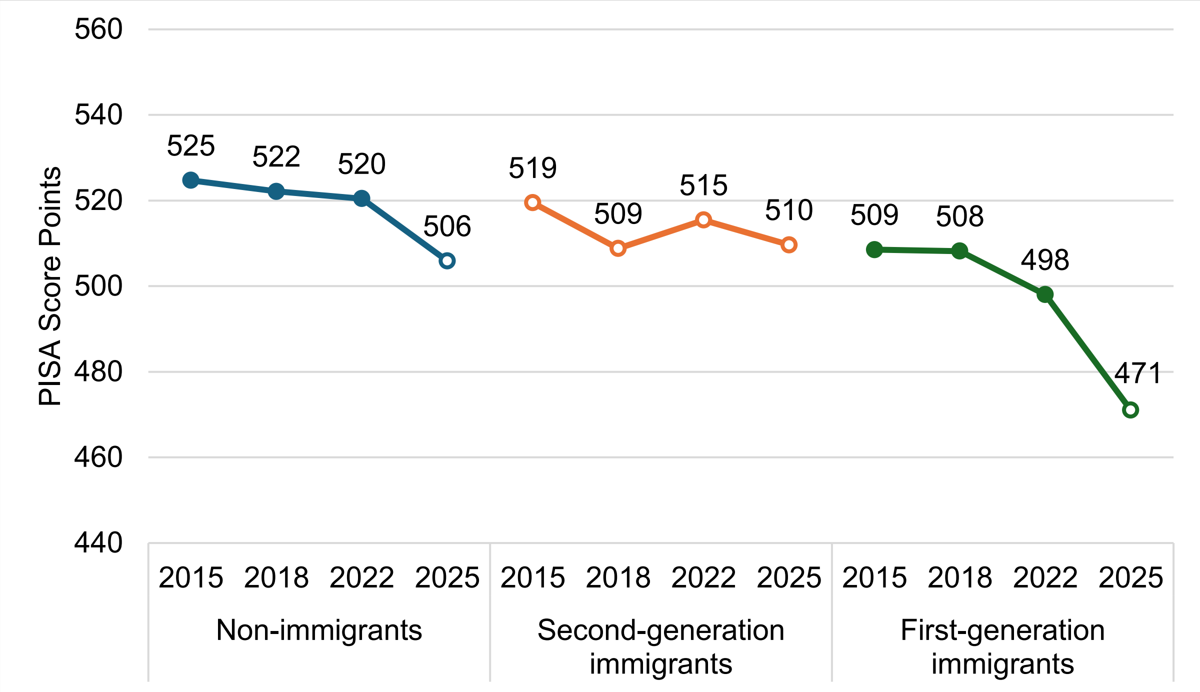
Figure 4.11. Mean reading performance in Ireland, the OECD, and the EU, by immigration status (2025)



Notes. The OECD average is the mean across all 37 OECD countries (Costa Rica excluded).
The EU average is the mean across all 27 EU countries.
Estimates for immigrant student groups in bold are statistically significantly different from the corresponding estimates for non-immigrant students.

Figure 4.12 presents trends in reading performance for non-immigrant students and for the two groups of immigrant students, each of whose representation in the sample increased in 2025. The reading performance of second-generation immigrants did not change statistically significantly in PISA 2025, compared to previous cycles. Mean reading performance for both non-immigrants and first-generation immigrants declined in PISA 2025 compared to all previous cycles since 2015.

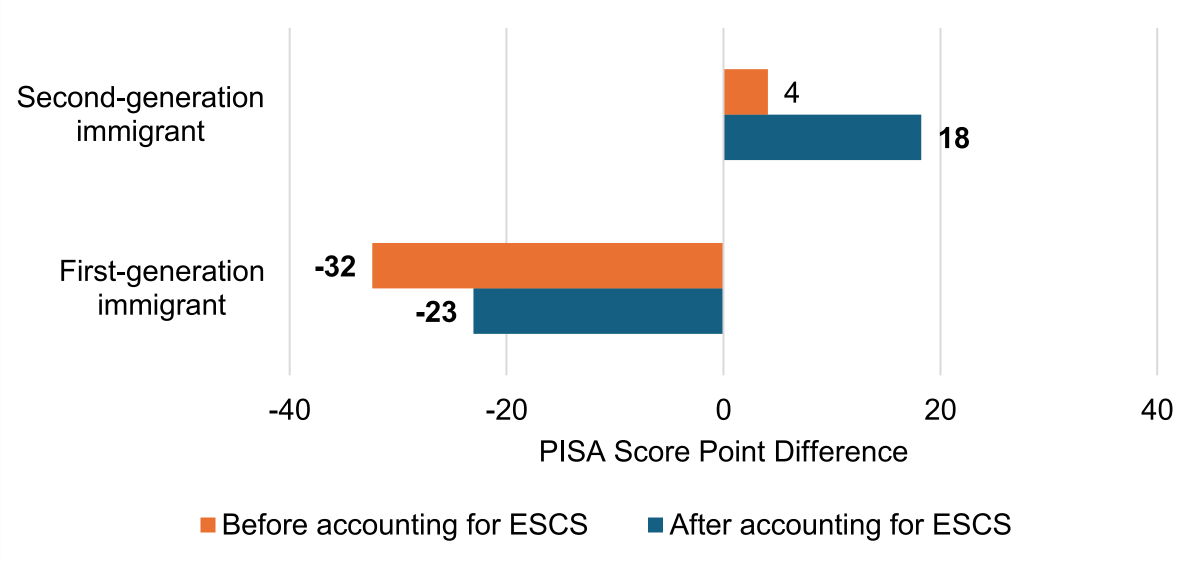
Figure 4.12. Trends in mean reading performance in Ireland, by immigration status (2015–2025)



Note. Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Given that students with an immigrant background tend to come from more disadvantaged socio-economic backgrounds (OECD, 2026b), differences in reading performance by immigration status were also examined after accounting for students' ESCS. Figure 4.13 presents differences in reading performance between non-immigrant students and each of the immigrant student groups before and after accounting for ESCS. Second-generation immigrant students, whose reading performance did not differ statistically significantly from that of non-immigrant students, outperformed their non-immigrant peers after ESCS was taken into account. Additionally, the performance gap between non-immigrant and first-generation immigrant students was reduced after controlling for ESCS, but it remained statistically significant.

Figure 4.13. Differences in mean reading performance between non-immigrants and the two immigrant groups in Ireland, before and after accounting for ESCS (2025)

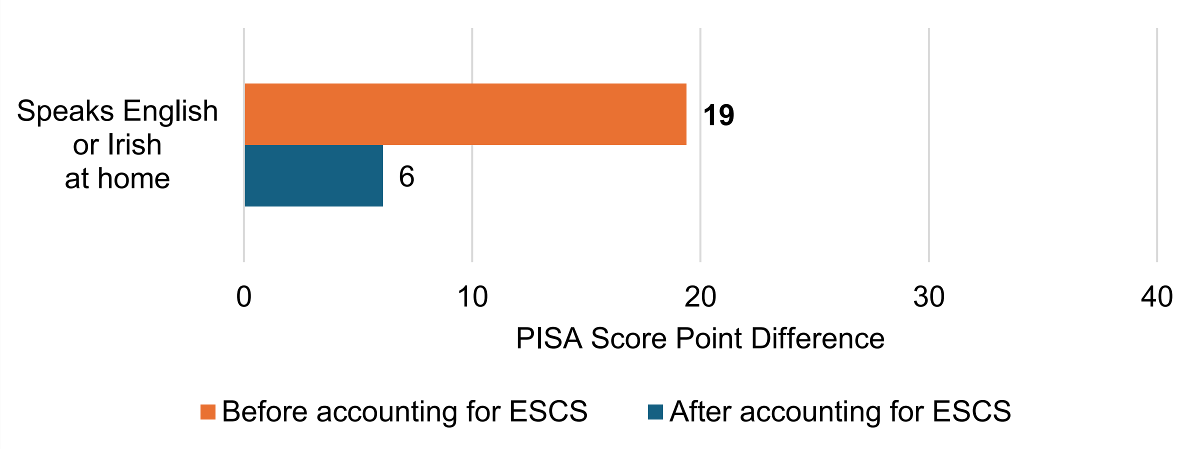


Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Non-immigrant students were used as the reference category.
Differences that are statistically significant are indicated in bold.

Similar to previous cycles, students' ESCS was positively correlated with their performance on the PISA 2025 reading assessment in Ireland (r = 0.30, SE = 0.01), as well as the OECD (r = 0.30, SE =0.00) and the EU (r = 0.31, SE = 0.00) on average; the correlations were statistically significant and moderate in strength.

Figure 4.14 presents mean reading performance gaps in PISA 2025 between students who reported speaking English or Irish most of the time at home and those who reported speaking another language, before and after accounting for ESCS. Students who reported speaking either English or Irish at home performed, on average, better in reading than their peers who reported speaking another language. However, after accounting for ESCS, the difference between the two groups was not statistically significant.

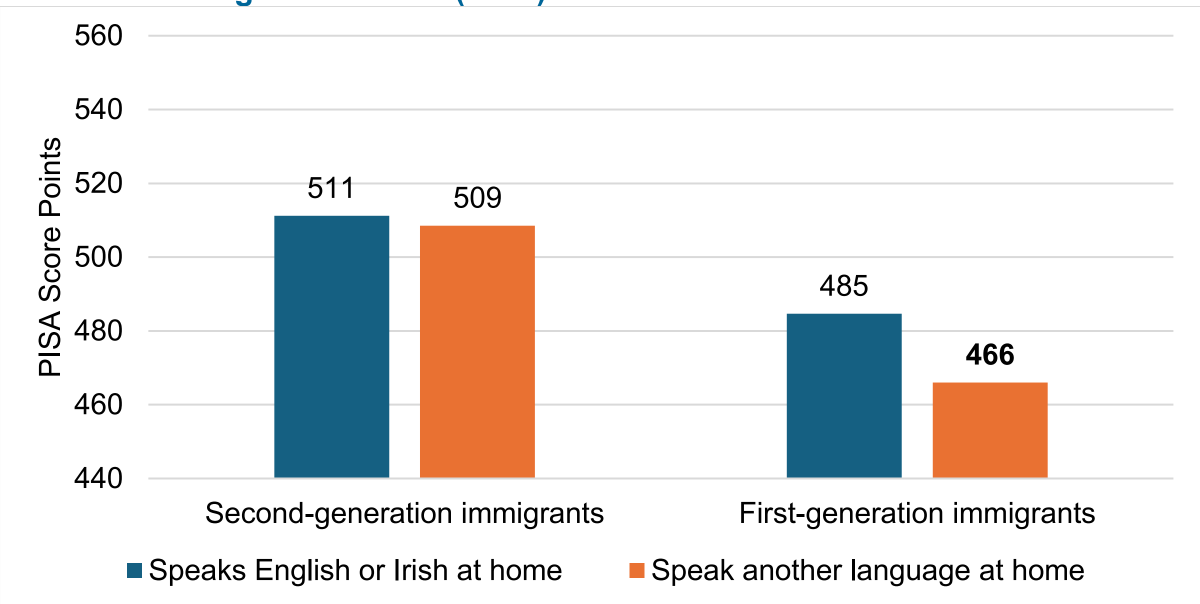
Figure 4.14. Differences in reading performance by language spoken at home in Ireland, before and after accounting for ESCS (2025)



Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Students who reported speaking a language other than English or Irish at home were used as the reference category.
Differences that are statistically significant are indicated in bold.

Given that very few non-immigrant students in Ireland reported speaking a language other than English or Irish at home (0.5%), differences in reading performance by language spoken at home were examined separately for the first- and second-generation immigrant students (Figure 4.15).

Figure 4.15. Mean reading performance in Ireland, by language spoken at home and immigration status (2025)



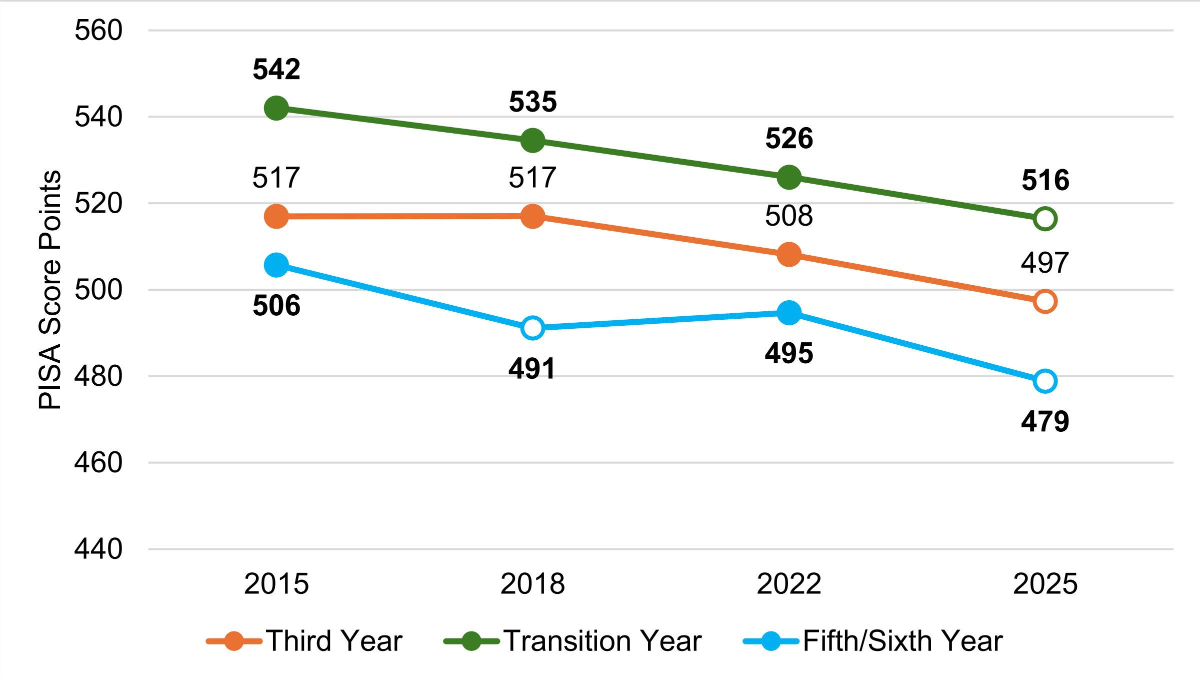
Note. Estimates for students speaking another language in bold are statistically significantly different from the corresponding estimates for students speaking English or Irish at home.

There was no statistically significant difference in reading performance between second-generation immigrant students who spoke English or Irish at home and those who spoke another language, however, amongst first-generation immigrant students, those who spoke English or Irish at home outperformed those who spoke another language by 19 points.

4.3.3. Reading performance by grade level

Student reading performance in Ireland across the PISA cycles since 2015 was analysed by grade level. Across all examined cycles, students in Transition Year performed, on average, better than all other year groups, followed by students in Third Year (Figure 4.16). For all grade levels, reading performance in PISA 2025 was lower than in all other examined cycles, with the exception of Fifth/Sixth Year students, whose performance in 2018 did not differ statistically significantly from that of the corresponding group in 2025.

Figure 4.16. Trends in mean reading performance in Ireland, by grade level (2015–2025)

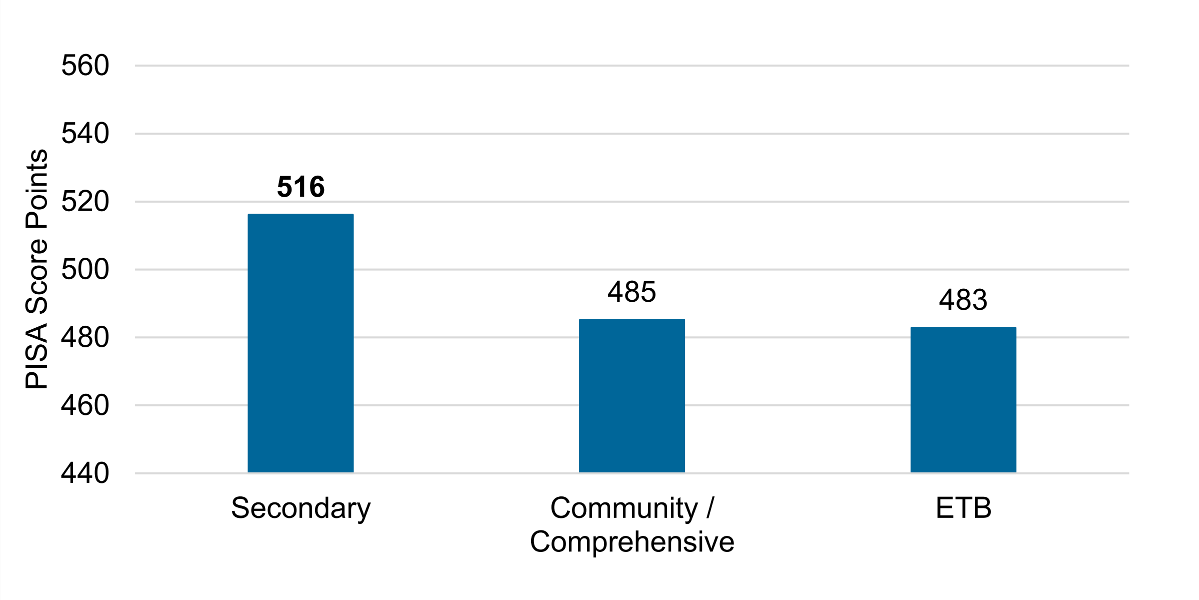


Notes. A very small number of 15-year-old students participating in PISA attended First- and Second-Year classes. Results for these groups are not reported due to the very small number of cases. Estimates in bold are statistically significantly different from the corresponding estimates for Third-year students.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

4.3.4. Reading performance by school type and DEIS status

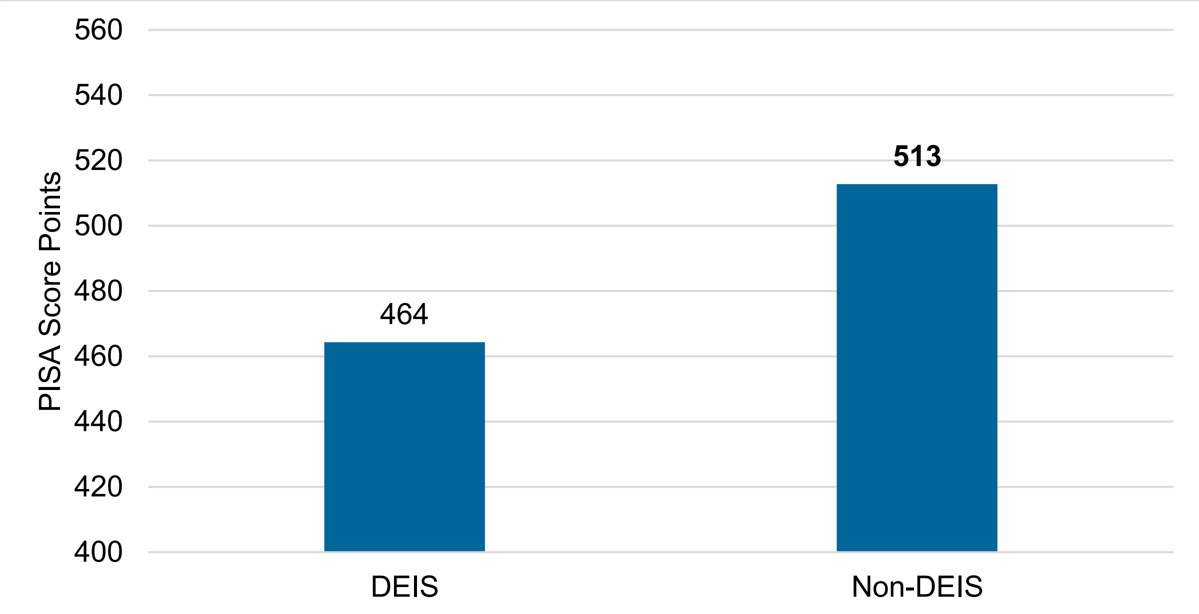
Student reading performance was also examined by school type and DEIS status. Students in secondary schools outperformed their peers in community/comprehensive (by 31 points) and ETB schools (by 33 points) on average, while there was no statistically significant difference in performance between students attending ETB schools and those attending community/comprehensive schools (Figure 4.17). Students attending non-DEIS schools outperformed their peers in DEIS schools in reading by 48 points on average (Figure 4.18).

Figure 4.17. Mean reading performance in Ireland, by school type (2025)



Note. Estimates for students in secondary and community/comprehensive schools in bold are statistically significantly different from the corresponding estimates for students in ETB schools.

Figure 4.18. Mean reading performance in Ireland, by school DEIS status (2025)



Note. Estimates for students in non-DEIS schools in bold are statistically significantly different from the corresponding estimates for students in DEIS schools.

Chapter 5: Performance in mathematics

This chapter looks at student performance in mathematics. It examines how students in Ireland and in other participating countries/economies performed in PISA 2025, draws comparisons with previous cycles, and provides reference estimates for comparison countries, as well as for the OECD and the EU. Student performance is also described in terms of proficiency levels. Finally, the chapter examines the relationship between mathematics performance and key student- and school-level factors.

Unless otherwise specified, all performance differences and changes discussed in this chapter refer to statistically significant differences/changes.

5.1. Overall mathematics performance

5.1.1. Mathematics performance in PISA 2025

Table 5.1 presents the overall mathematics performance for all countries/economies participating in PISA 2025 with reported mathematics scores, as well as the corresponding averages across OECD and EU countries.[15] Ireland achieved a mean score of 480 points in mathematics, which was higher than both the OECD (463 points) and EU (460 points) averages. The highest-performing country/economy in mathematics was B-S-J-Z (China)[16], which scored higher than all other participants. Japan had the highest mean performance among OECD countries (although this score was not statistically significantly different to the mean score achieved by Korea), while Estonia was the top performer in the EU.

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[15] The OECD decided not to report results on reading and mathematics performance for Uzbekistan due to a number of inconsistencies identified in the response data for these two domains. The response data for the domains of science and learning in the digital world did not show the same issues and were used in reporting (OECD, 2026b).

[16] B-S-J-Z (China) refers to the four PISA-participating provinces/municipalities of Beijing, Shanghai, Jiangsu, and Zhejiang.

Table 5.1. Mean mathematics performance for all countries/economies, the OECD, and the EU (2025)

Country	Mean	SE	SD	IRL	Country	Mean	SE	SD	IRL
B-S-J-Z (China)	612	(2.5)	101	↑	Azerbaijan	422	(4.0)	104	↓
Singapore	563	(1.6)	109	↑	Romania	419	(4.5)	105	↓
Macao (China)	549	(1.1)	97	↑	Mongolia	419	(2.3)	83	↓
Chinese Taipei	546	(3.1)	113	↑	Serbia	417	(3.0)	92	↓
Japan	525	(4.2)	104	↑	Georgia	416	(2.9)	90	↓
Korea	522	(4.0)	112	↑	Qatar	416	(1.3)	96	↓
Hong Kong (China)	522	(2.9)	103	↑	Kazakhstan	414	(1.7)	78	↓
Estonia	508	(2.3)	89	↑	Cyprus	412	(1.4)	101	↓
Switzerland	499	(2.6)	101	↑	Montenegro	411	(1.1)	81	↓
United Kingdom	488	(2.2)	102	↑	Moldova	410	(2.6)	82	↓
Canada*	485	(1.9)	99	↑	Mauritius	407	(3.7)	84	↓
Poland	484	(2.8)	95	↔	Thailand	407	(2.9)	76	↓
Netherlands*	483	(2.9)	106	↔	Bulgaria	405	(4.0)	101	↓
Ireland	480	(1.8)	84		Uruguay	405	(1.9)	85	↓
Belgium	480	(2.8)	98	↔	Chile	403	(2.2)	77	↓
New Zealand*	480	(2.2)	102	↔	Malaysia	397	(2.2)	74	↓
Australia	478	(1.9)	99	↔	Saudi Arabia	390	(2.4)	71	↓
Austria	477	(2.6)	93	↔	Mexico	388	(1.9)	68	↓
Czechia	477	(2.6)	98	↔	Jordan	388	(2.2)	67	↓
Denmark	471	(2.1)	86	↓	Costa Rica	387	(2.3)	69	↓
Lithuania	470	(1.9)	88	↓	Peru	382	(2.4)	78	↓
Slovak Republic	469	(2.4)	104	↓	Dushanbe (Tajikistan)	382	(1.0)	55	↓
Finland	469	(2.2)	93	↓	Colombia	381	(2.8)	75	↓
Italy	468	(2.8)	93	↓	North Macedonia	380	(1.0)	89	↓
Sweden	464	(2.5)	98	↓	Lebanon	377	(3.0)	87	↓
Germany	464	(3.0)	98	↓	Brazil	377	(1.7)	81	↓
United States*	463	(5.4)	101	↓	Armenia	376	(2.0)	85	↓
Türkiye	462	(2.4)	97	↓	Philippines	371	(1.7)	62	↓
Latvia	460	(1.7)	87	↓	Argentina	367	(2.7)	80	↓
Portugal	460	(3.5)	93	↓	Cambodia	366	(1.7)	59	↓
Slovenia	460	(1.2)	93	↓	Ecuador	366	(1.7)	65	↓
Hungary	459	(2.5)	91	↓	Indonesia	364	(2.1)	59	↓
Luxembourg	458	(0.9)	98	↓	Kyrgyzstan	364	(2.0)	65	↓
France	458	(3.0)	93	↓	Morocco	355	(3.0)	66	↓
Spain	457	(1.7)	87	↓	Palestinian Authority	354	(1.8)	67	↓
Croatia	455	(1.8)	92	↓	Kosovo	350	(1.3)	67	↓
United Arab Emirates	453	(2.2)	102	↓	El Salvador	346	(1.8)	62	↓
Norway*	452	(2.0)	96	↓	Dominican Republic	339	(1.7)	58	↓
Iceland	450	(1.5)	90	↓	Kurdistan Region (Iraq)	339	(1.8)	56	↓
Viet Nam	443	(4.2)	87	↓	Guatemala	334	(1.9)	58	↓
Malta	439	(1.8)	103	↓	Paraguay	334	(1.6)	64	↓
Brunei Darussalam	435	(0.9)	84	↓	Kenya	326	(2.7)	69	↓
Israel	433	(3.1)	103	↓	Zambia	314	(9.3)	90	↓
Albania*	433	(2.9)	80	↓	Rwanda	312	(3.0)	67	↓
Ukraine	431	(2.6)	89	↓	OECD average	463	(0.4)	93	↓
Greece	424	(2.9)	88	↓	EU average	460	(0.5)	95	↓

	Statistically significantly above OECD average	↑	Statistically significantly above Ireland
	At OECD average	↔	Not different from Ireland
	Statistically significantly below OECD average	↓	Statistically significantly below Ireland

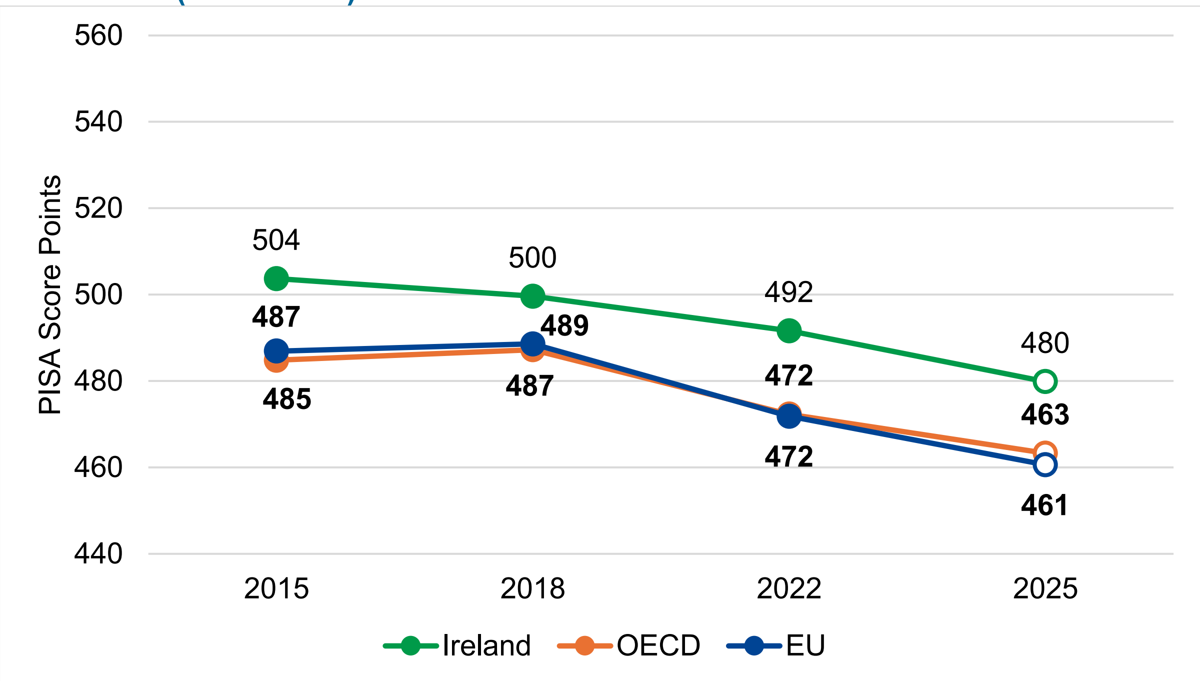
Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
*Caution is required when interpreting estimates for this country/economy because one or more PISA sampling standards were not met.

Of all countries/economies that participated in PISA 2025, 11 had mean mathematics scores higher than Ireland, a further seven had mean scores that did not differ statistically significantly from that of Ireland, while the remaining 71 countries/economies had lower mean mathematics scores. At the OECD level, six countries (Japan, Korea, Estonia, Switzerland, the United Kingdom, and Canada) had mean mathematics scores that were higher than that of Ireland. In the EU, only one country (Estonia) outperformed Ireland.[17] [18]

5.1.2. Trends in mathematics performance

Figure 5.1 presents trends in mathematics performance for Ireland, as well as for the OECD and EU averages, focusing on PISA cycles since 2015.

Figure 5.1. Trends in mean mathematics performance in Ireland, the OECD, and the EU (2015–2025)



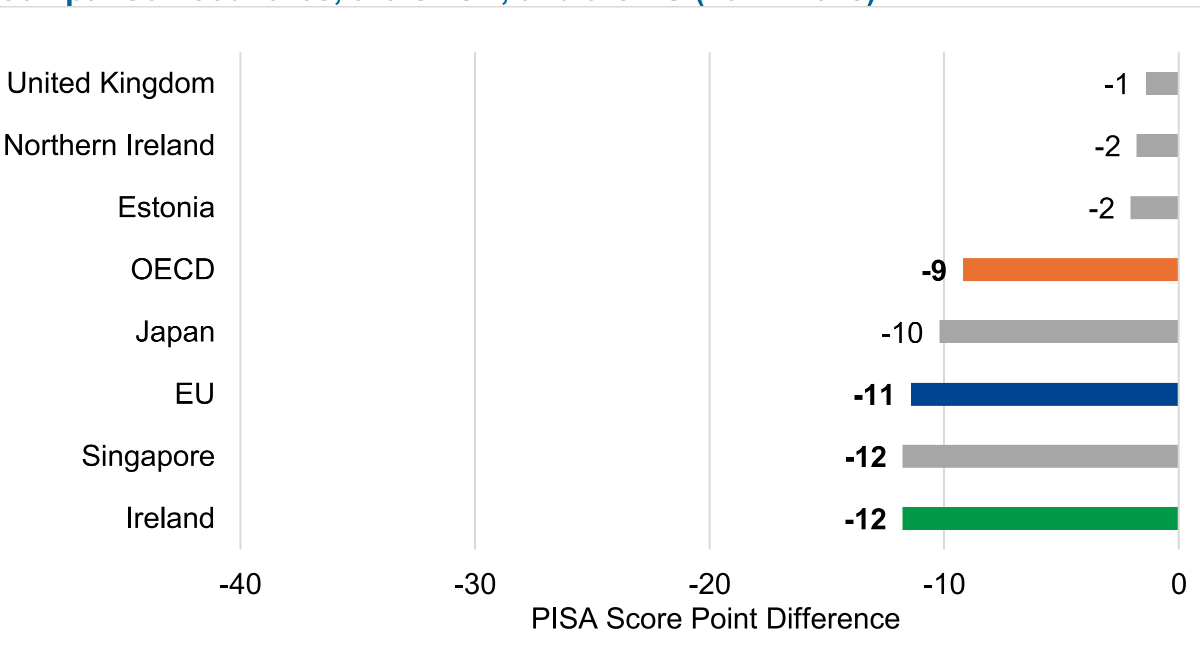
Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).
The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

[17] The mean mathematics score for Northern Ireland was 473, which is statistically significantly lower than Ireland's mean score.
[18] Ireland's rank in mathematics is estimated to range from 10th to 20th among all participating countries/economies and from 5th to 15th among OECD countries (OECD, 2026b, Table 1.2.o5).

In all examined cycles, Ireland has performed above the OECD and EU averages. However, in Ireland and across the OECD and the EU on average, there has been a decline in performance in mathematics over time, with scores in all cases lower in PISA 2025 than corresponding scores in all other examined cycles. Trend performance estimates from PISA 2003, the first cycle in which mathematics was assessed as a major domain, are presented in Figure A.3 (Appendix A).

Figure 5.2 presents the changes in mean mathematics scores between PISA 2022 and PISA 2025 for Ireland, selected comparison countries, and the OECD and EU averages. Comparison countries participated in both cycles and were selected based on their performance in PISA 2025 (the highest-performing country globally [Singapore], within the OECD [Japan], and within the EU [Estonia]), or as neighbouring education systems for contextual comparison (the United Kingdom and Northern Ireland). In all instances, there was a decline in mean mathematics scores in PISA 2025. Ireland's change in performance was similar to changes observed across countries in the OECD and the EU on average, where declines were observed. Singapore also experienced a decline between the two cycles, while declines observed in Estonia, the United Kingdom, Northern Ireland, and Japan were not statistically significant.

Figure 5.2. Change in mathematics performance in Ireland, selected comparison countries, the OECD, and the EU (2022–2025)



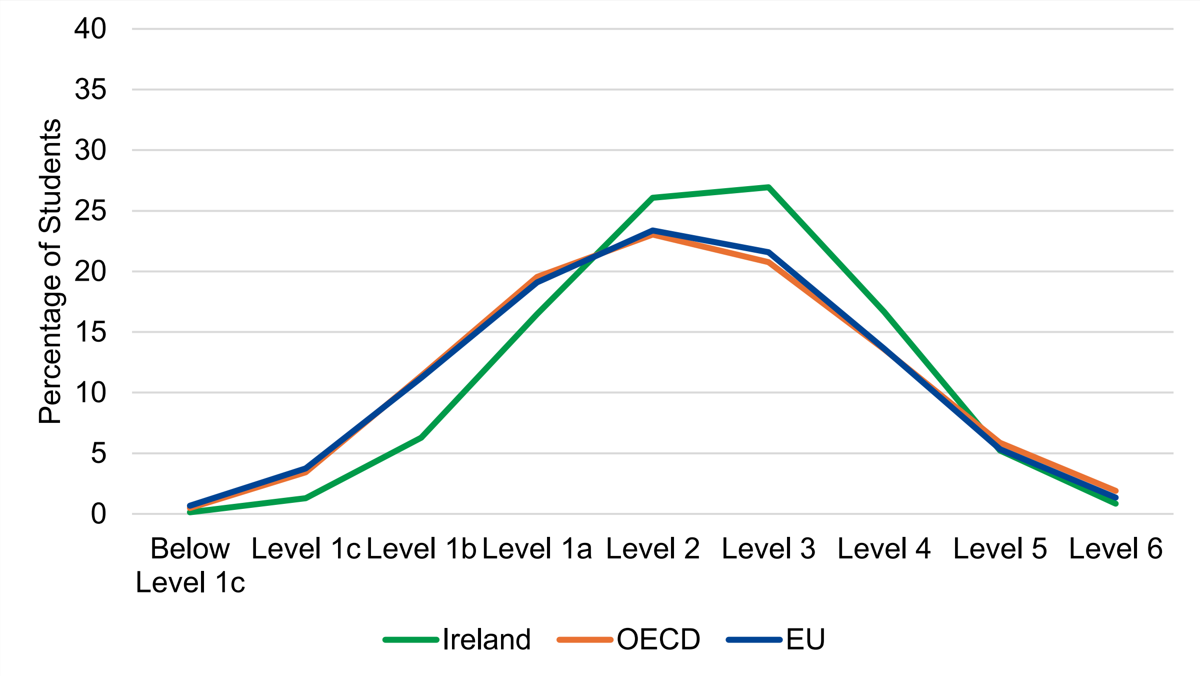
Notes. The OECD average is the mean across 37 OECD countries (Luxembourg excluded).
The EU average is the mean across 26 EU countries (Luxembourg excluded).
Changes that are statistically significant are indicated in bold.

5.2. Performance on mathematics proficiency levels

PISA scores can be mapped to proficiency levels, allowing for a more descriptive interpretation of students' knowledge and skills. Figure 5.3 presents the proportion of students performing at each level in PISA 2025 for Ireland, as well as for the OECD and the EU; Table B.3 (Appendix B) outlines the types of tasks students can perform at each of the proficiency levels in mathematics.

Ireland shows a narrower distribution of student performance than both the OECD and the EU, with higher proportions of students performing at the middle levels of proficiency compared to the OECD and EU averages. Differences in proportions of students performing at each level in Ireland, compared to the OECD and the EU, were statistically significant at every level, except Level 5.

Figure 5.3. Percentages of students performing at each proficiency level in mathematics in Ireland, the OECD, and the EU (2025)

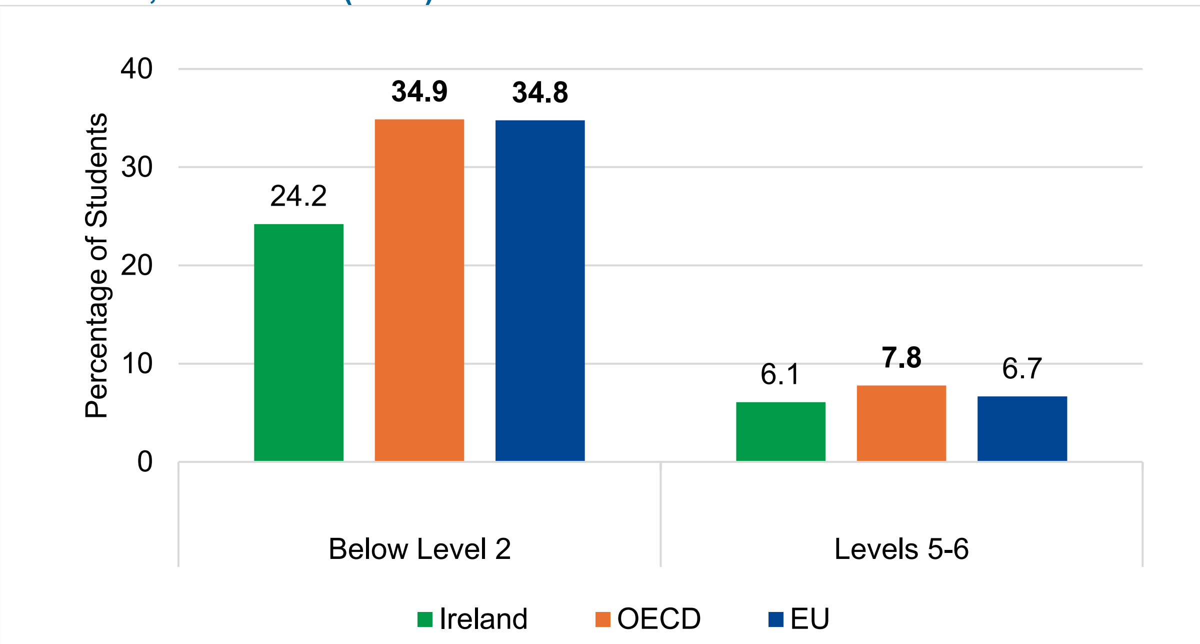


		Below Level 1c	Level 1c	Level 1b	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6
Ireland	%	0.1	1.3	6.3	16.5	26.1	26.9	16.7	5.2	0.9
OECD	%	**0.5**	**3.4**	**11.4**	**19.5**	**23.0**	**20.8**	**13.6**	5.9	**1.9**
EU	%	**0.7**	**3.8**	**11.2**	**19.1**	**23.4**	**21.6**	**13.6**	5.3	**1.3**

Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

In PISA, Level 2 is considered the baseline level of proficiency students need to participate meaningfully in society. Therefore, students performing below Level 2 are classified as “low performers”, while those performing at Levels 5 and 6 are classified as “top performers”. Figure 5.4 presents the percentages of low- and top-performing students in mathematics in PISA 2025 for Ireland, the OECD, and the EU. Ireland had a lower proportion of low performers compared to both the OECD and EU averages. However, Ireland also had lower proportions of top performers compared to the OECD and EU averages, although the difference compared to the EU was not statistically significant.

Figure 5.4. Percentages of low and top performers in mathematics in Ireland, the OECD, and the EU (2025)

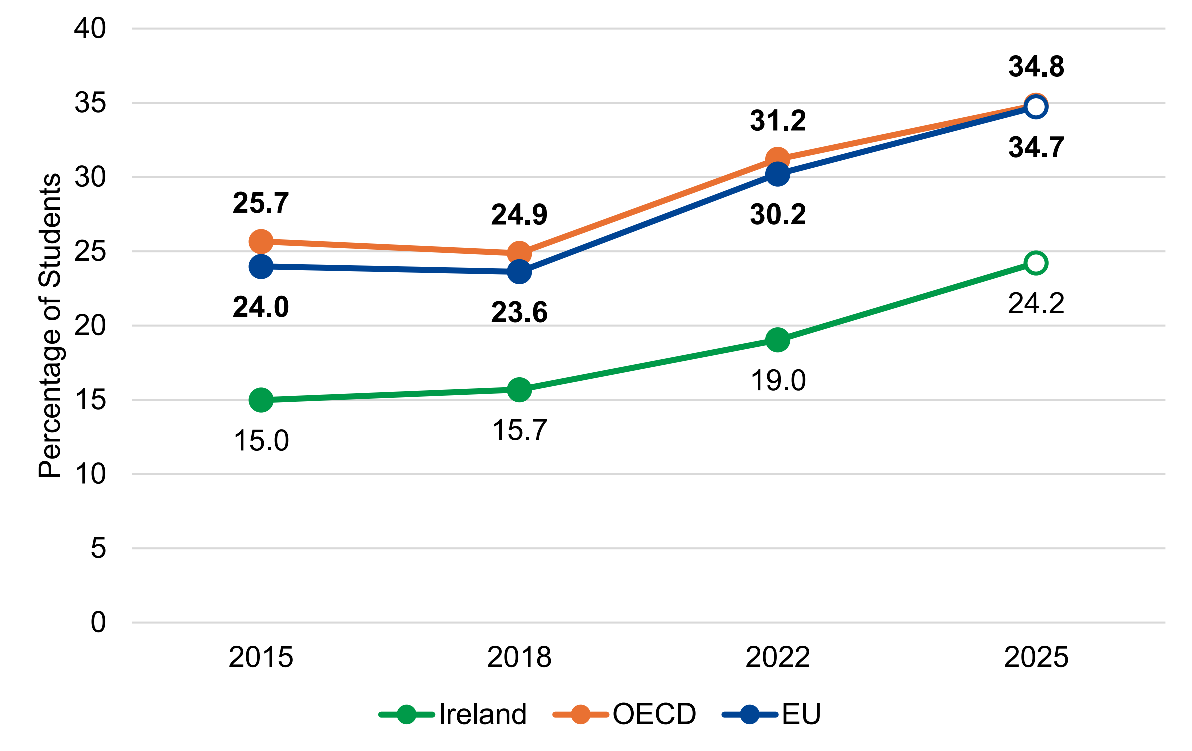


Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

Trends in low and top performance in mathematics since 2015 are presented in Figure 5.5 and Figure 5.6. Across the examined cycles, Ireland has consistently had lower proportions of low-performing students than the OECD and EU averages. However, in all cases, the proportions of students performing below Level 2 in mathematics increased in 2025 compared to previous cycles. Ireland has tended to have lower proportions of top performers in mathematics than the average across OECD and EU countries, however, in some cases the differences are not statistically significant. In PISA 2025, in Ireland, and on average across the OECD and the EU, there has been a decline in the proportions of students performing at Levels 5 and 6;

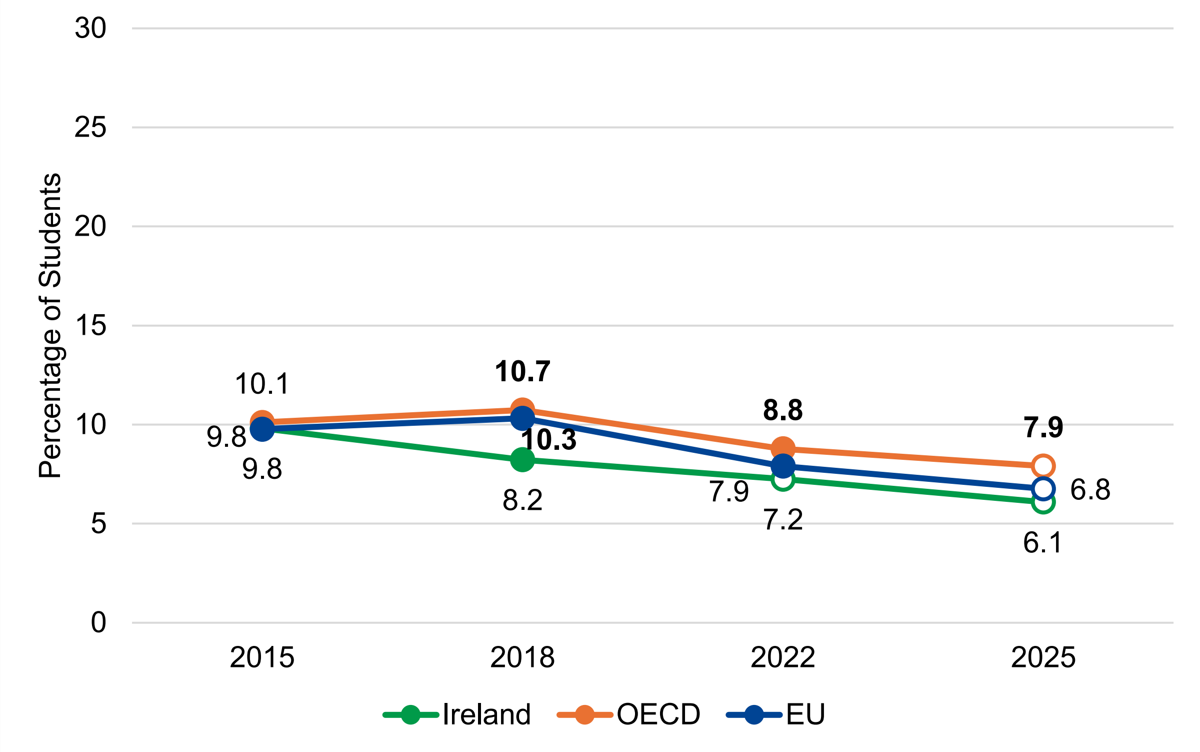
these changes were statistically significant compared to PISA 2015 and 2018 for Ireland and compared to all previous cycles examined in this report for both the OECD and the EU.

Figure 5.5. Trends in percentages of low performers in mathematics in Ireland, the OECD, and the EU (2015–2025)



Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).
The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Figure 5.6. Trends in percentages of top performers in mathematics in Ireland, OECD, and the EU (2015–2025)



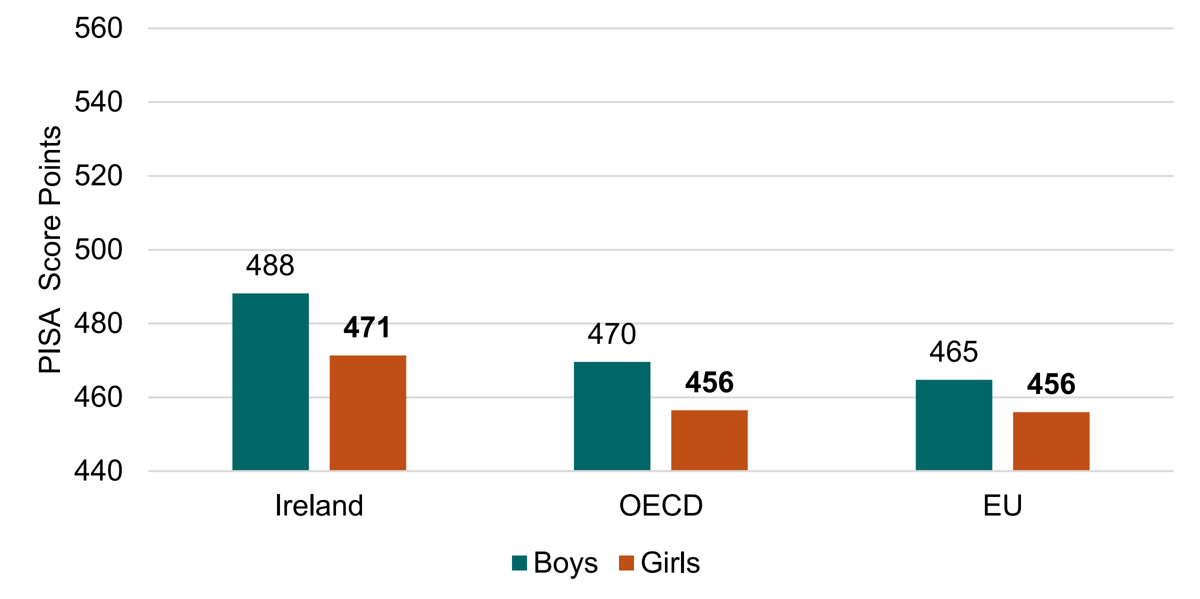
Notes. The OECD average is the mean across 36 OECD countries (Luxembourg and Spain excluded).
The EU average is the mean across 25 EU countries (Luxembourg and Spain excluded).
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

5.3. Performance by selected background and contextual variables

5.3.1. Mathematics performance by gender

Figure 5.7 presents students' overall mathematics performance by gender in Ireland, as well as on average across OECD and EU countries. In Ireland, boys outperformed girls by 17 points on average. Similarly, boys achieved higher mean scores than girls across the OECD (difference of 13 points) and the EU (difference of 9 points). The gender gap in mathematics performance was larger in Ireland compared to the EU average, but not statistically significantly different to the OECD average.

Figure 5.7. Mean mathematics performance in Ireland, the OECD, and the EU, by gender (2025)



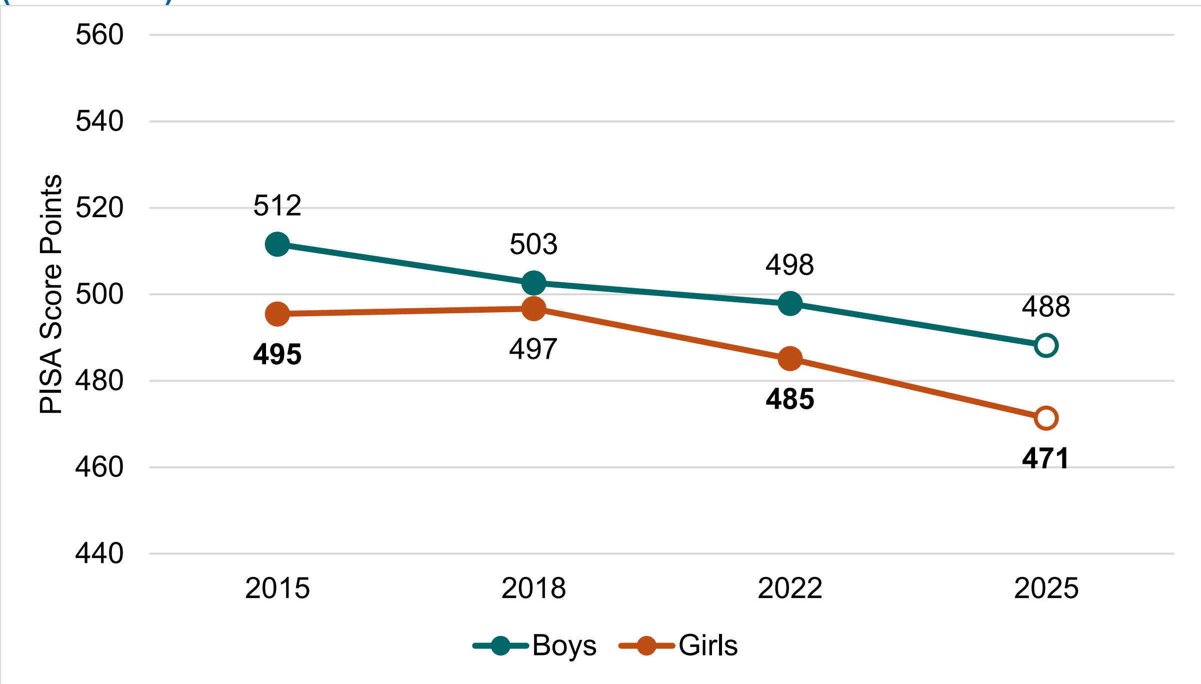
Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

Figure 5.8 presents trends in mathematics performance for boys and girls in Ireland since 2015. The results show a pattern of declining performance in mathematics for both gender groups, with 2025 scores being lower than each of the previous cycles for both boys and girls. Boys performed better than girls in all examined cycles, except in 2018 when the difference was not statistically significant. The gender gap remained stable in 2025 compared to 2015 and 2022, but increased compared to 2018.

Given that approximately one third of students participating in PISA 2025 in Ireland attended single-sex schools, gender differences in performance were examined between boys and girls in mixed schools and between students attending single-sex schools. As shown in Figure 5.9, the gender performance gap, in favour of boys, was substantially larger among students attending single-sex schools (difference of 27 points), compared to those attending mixed schools (difference of 17 points). Both boys and girls in single-sex schools outperformed their peers in mixed schools.[19]

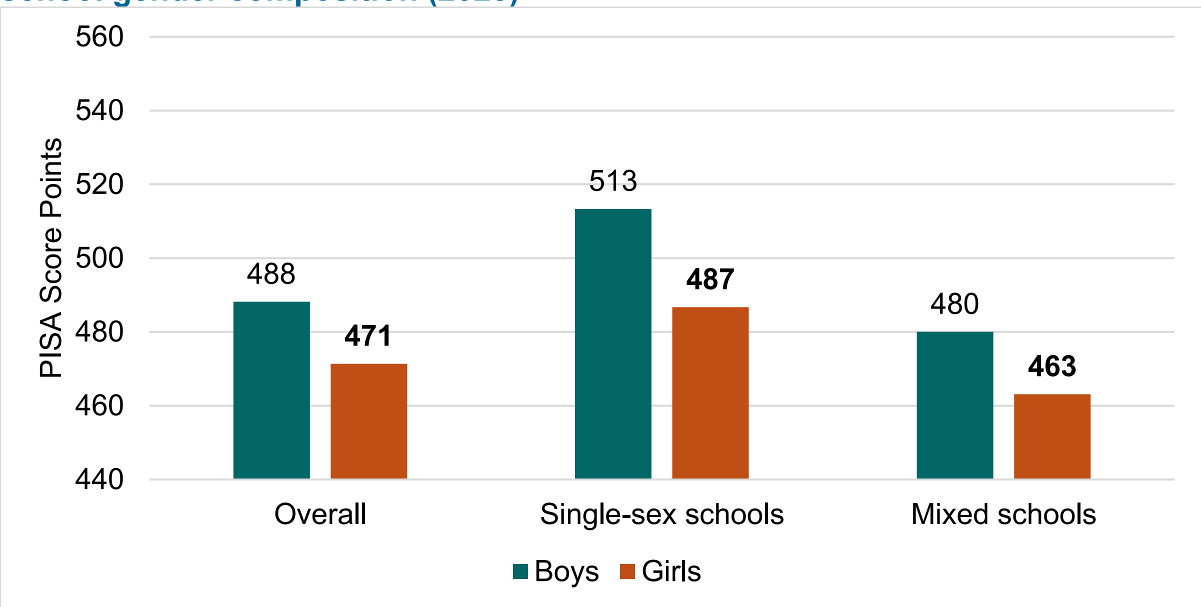
[19] Additional analysis indicated that the higher mean performance of students attending single-sex schools compared with those attending mixed schools was not fully explained by students' ESCS (Figure C.1, Appendix C). Furthermore, among students attending single-sex schools, the larger gap between boys' and girls' performance (relative to the gender gap in mixed schools) was not explained by differences in ESCS (Figure C.2, Appendix C).

Figure 5.8. Trends in mean mathematics performance in Ireland, by gender (2015-2025)



Notes. Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Figure 5.9. Mean mathematics performance for boys and girls in Ireland, by school gender composition (2025)

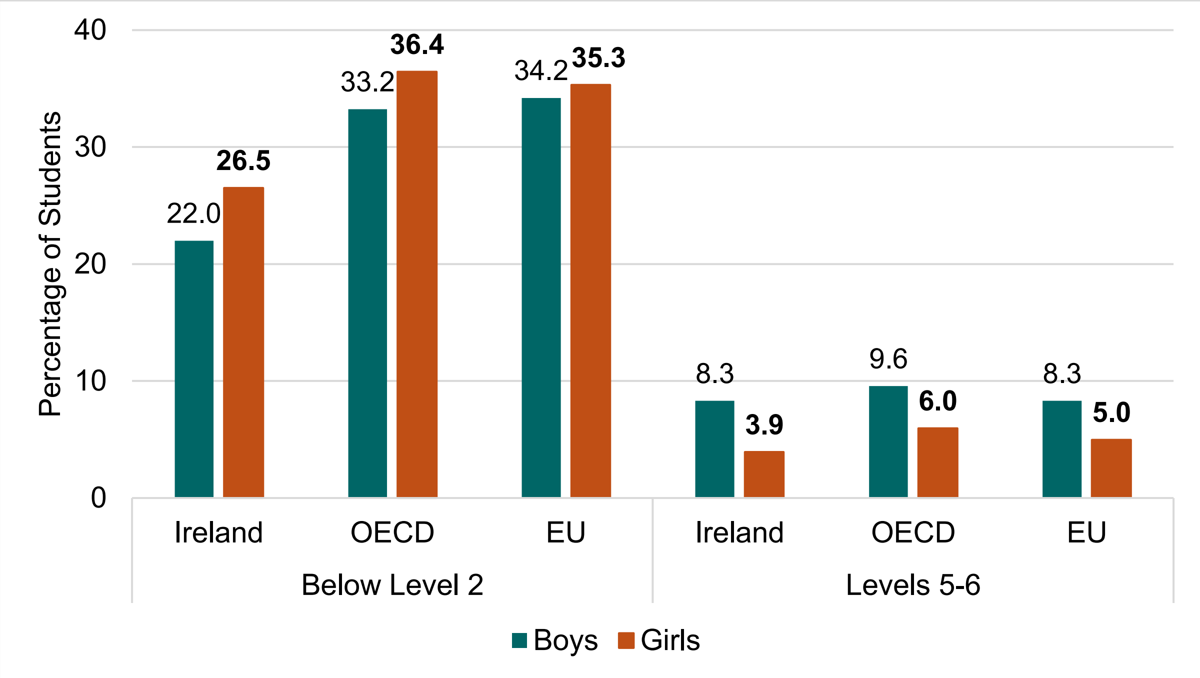


Note. Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

Gender differences in performance were also examined with reference to proficiency levels (Figure 5.10). In Ireland, and across both OECD and EU countries on average, girls were more likely than boys to be low performers in mathematics in

PISA 2025, while they were also less likely to be top performers compared to boys. As shown previously (Figure 5.4), when comparing proficiency levels between Ireland and both the OECD and EU averages, a lower proportion of students in Ireland performed below Level 2. Figure 5.10 shows that this pattern applies to both boys and girls. With regard to top performers, in Ireland, there were no statistically significant differences in the proportions of either boys or girls performing at Levels 5 and 6 compared to the OECD and the EU (Figure 5.10).

Figure 5.10. Percentage of low and top performers in mathematics in Ireland, the OECD, and the EU, by gender (2025)



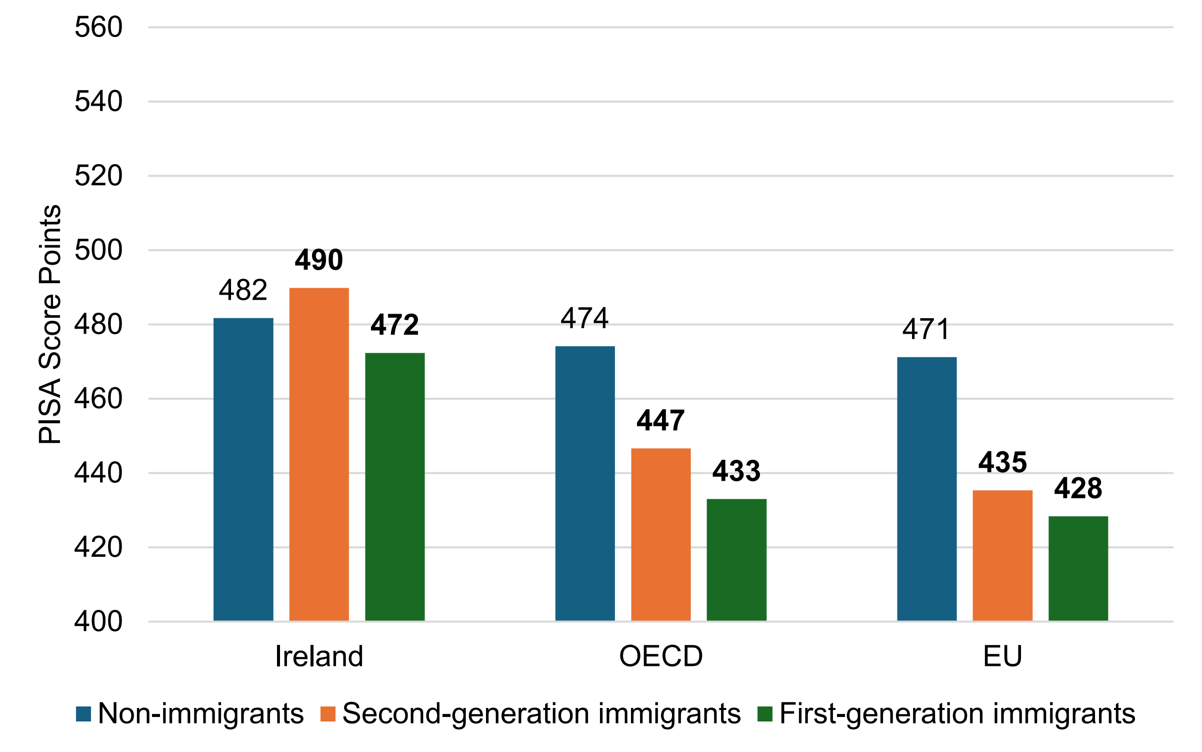
Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

5.3.2. Mathematics performance by immigration status, socio-economic status, and language spoken at home

Overall, there was no difference in mean mathematics performance between non-immigrant and immigrant students in Ireland (OECD, 2026b). However, a more nuanced pattern emerged when students were examined by immigration status (Figure 5.11). Second-generation immigrant students in Ireland achieved a higher mean mathematics score than both non-immigrant (difference of 8 points) and first-generation immigrant students (difference of 17 points), while non-immigrant students outperformed their first-generation immigrant peers by 9 points on average.

Across the OECD and the EU, non-immigrant students outperformed both second- and first- generation immigrant students in mathematics, with the performance gaps being substantially larger than the gaps observed in Ireland. All three groups in Ireland scored higher in mathematics than their counterparts in the OECD and the EU.

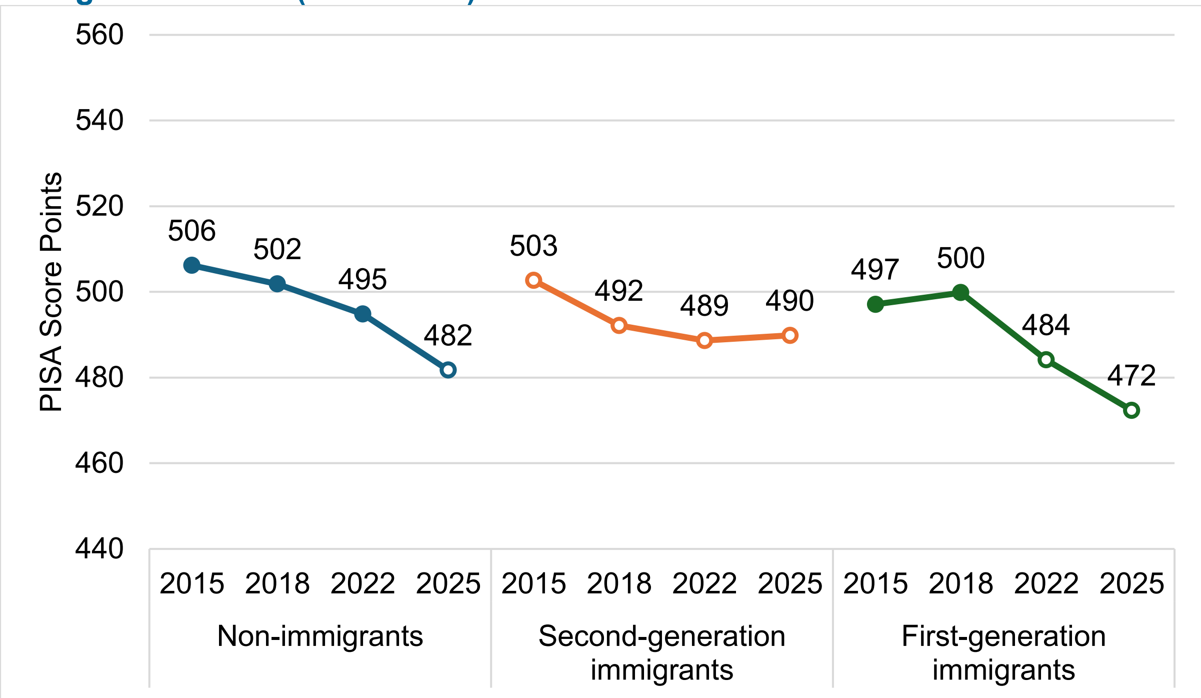
Figure 5.11. Mean mathematics performance in Ireland, the OECD, and the EU, by immigration status (2025)



Notes. The OECD average is the mean across all 37 OECD countries (Costa Rica excluded).
The EU average is the mean across all 27 EU countries.
Estimates for immigrant student groups in bold are statistically significantly different from the corresponding estimates for non-immigrant students.

Figure 5.12 presents trends in mathematics performance for non-immigrant students and for the two groups of immigrant students, each of whose representation in the sample increased in 2025. The mathematics performance of second-generation immigrant students did not change statistically significantly in PISA 2025, compared to previous cycles. Non-immigrant students had, on average, lower scores in mathematics in 2025 compared to all previous cycles since 2015. The mean performance of first-generation immigrants in 2025 was also lower than in all previous cycles since 2015; the decline between 2022 and 2025 for this group was not statistically significant.

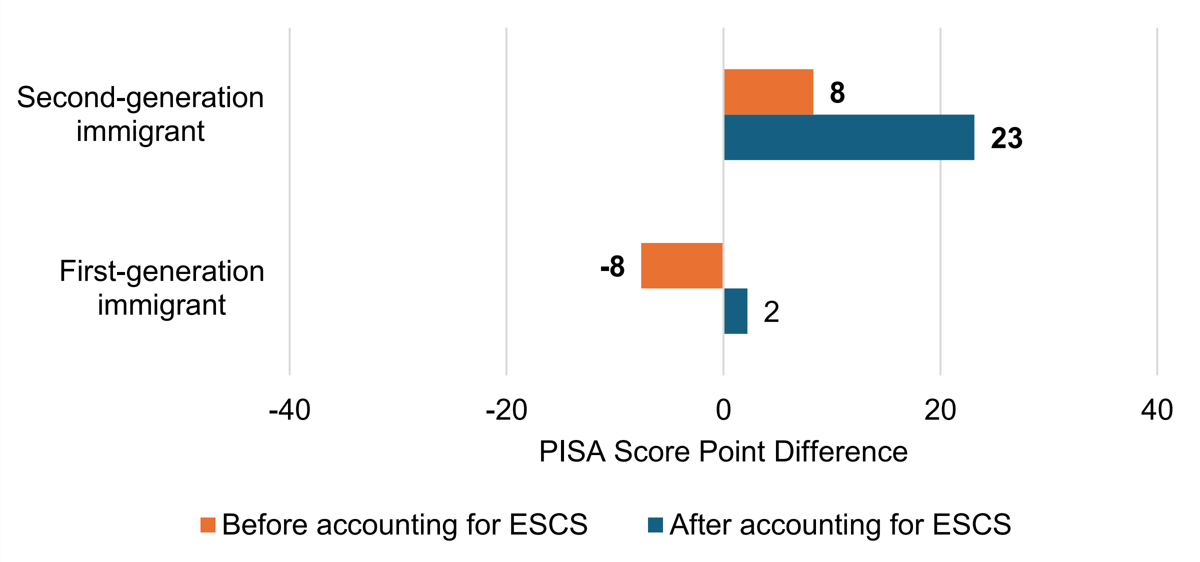
Figure 5.12. Trends in mean mathematics performance in Ireland, by immigration status (2015–2025)



Note. Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

Given that students with an immigrant background tend to come from more disadvantaged socio-economic backgrounds (OECD, 2026b), differences in mathematics performance by immigration status were also examined after accounting for students' ESCS. Figure 5.13 presents differences in mathematics performance between non-immigrant students and each of the immigrant student groups before and after accounting for ESCS. After accounting for ESCS, the performance gap in favour of second-generation immigrant students increased further, and the difference remained statistically significant. In contrast, after controlling for ESCS, there was no statistically significant difference in mean mathematics performance between non-immigrant and first-generation immigrant students.

Figure 5.13. Differences in mathematics performance between non-immigrants and the two immigrant groups in Ireland, before and after accounting for ESCS (2025)

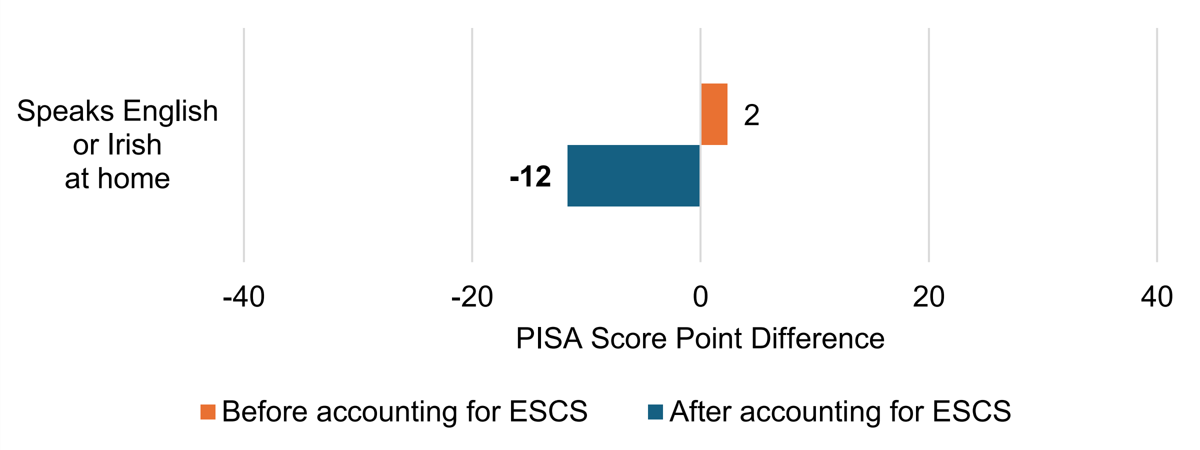


Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Non-immigrant students were used as the reference category.
Differences that are statistically significant are indicated in bold.

Similar to previous cycles, students' ESCS was positively correlated with their performance on the PISA 2025 mathematics assessment in Ireland (r = 0.33, SE = 0.01), as well as across the OECD (r = 0.34, SE = 0.00) and the EU (r = 0.36, SE = 0.00) on average; the correlations were statistically significant and moderate in strength.

Figure 5.14 presents mean mathematics performance gaps in PISA 2025 between students who reported speaking English or Irish most of the time at home and those who reported speaking another language, before and after accounting for ESCS. Before accounting for ESCS, there was no statistically significant difference in mean performance in mathematics between those who reported speaking English or Irish at home and those who reported speaking another language. However, after accounting for ESCS, students who reported speaking another language at home outperformed, on average, their peers who reported speaking English or Irish.

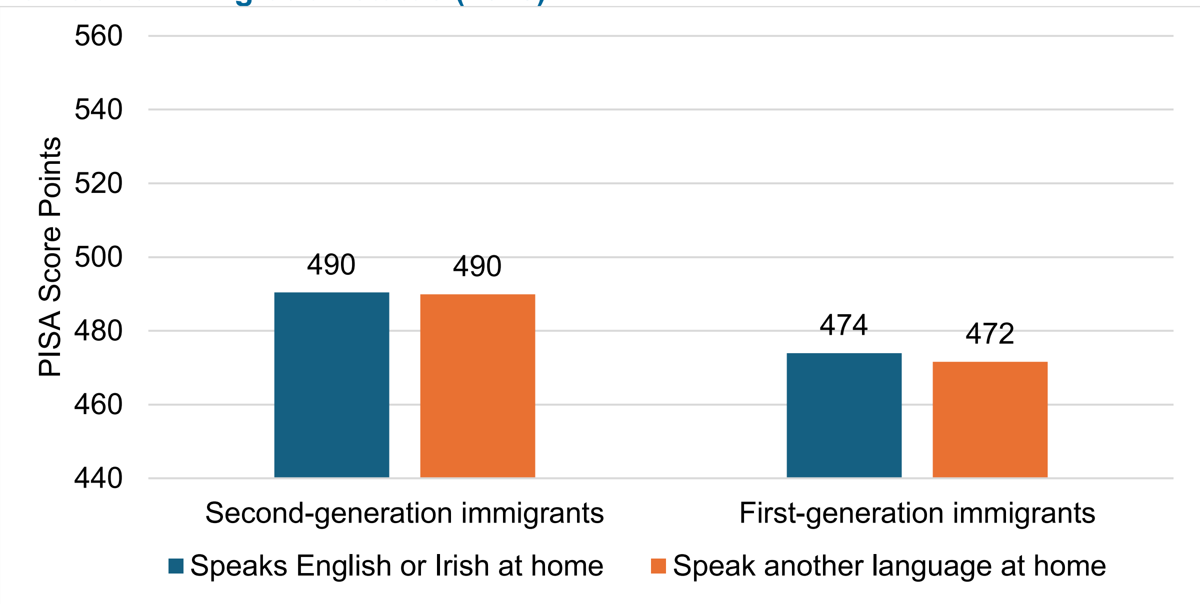
Figure 5.14. Differences in mean mathematics performance by language spoken at home in Ireland, before and after accounting for ESCS (2025)



Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Students who reported speaking a language other than English or Irish at home were used as the reference category.
Differences that are statistically significant are indicated in bold.

Given that very few non-immigrant students in Ireland reported speaking a language other than English or Irish at home (0.5%), differences in mathematics performance by language spoken at home were examined separately for first- and second-generation immigrant students, with the analysis indicating that there were no differences between the two groups (Figure 5.15).

Figure 5.15. Mean mathematics performance in Ireland, by language spoken at home and immigration status (2025)

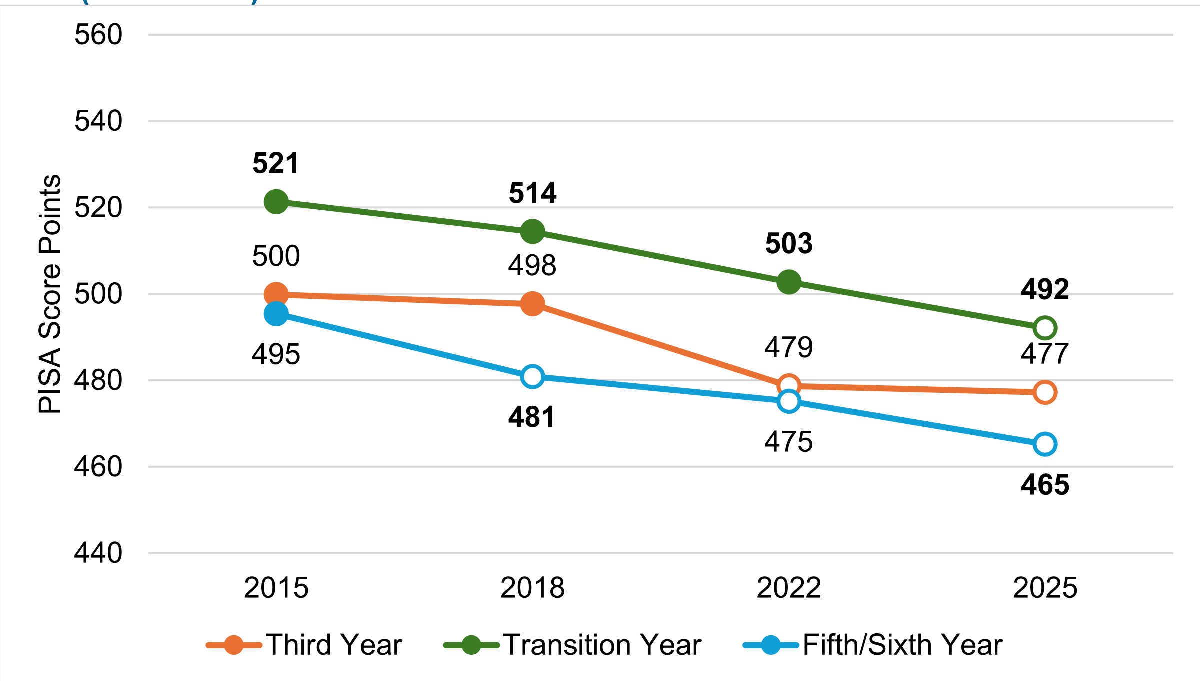


Note. Estimates for students speaking another language in bold are statistically significantly different from the corresponding estimates for students speaking English or Irish at home.

5.3.3. Mathematics performance by grade level

Student mathematics performance in Ireland across the PISA cycles since 2015 was analysed by grade level (Figure 5.16). Across all examined cycles, Transition Year students performed better, on average, than all other grade levels. However, mean mathematics scores for Transition Year Students have been declining, with scores in PISA 2025 lower than in other examined cycles. Mean mathematics scores for Third and Fifth/Sixth Year students have also declined in PISA 2025 compared to all other examined cycles, although the declines observed were not always statistically significant.

Figure 5.16. Trends in mean mathematics performance in Ireland, by grade level (2015–2025)

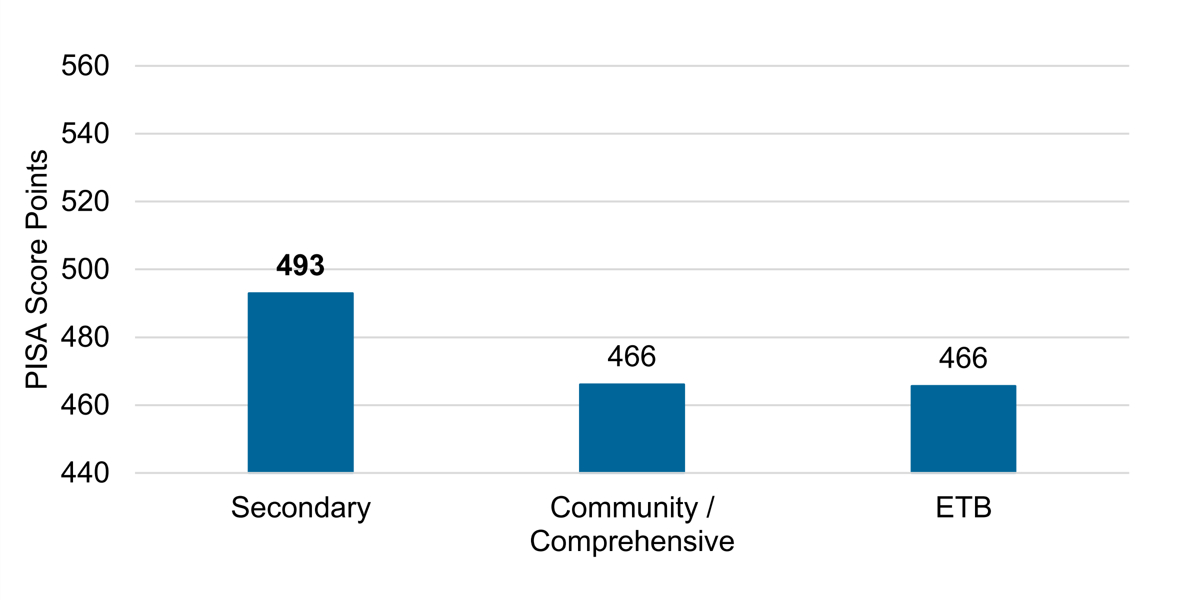


Notes. A very small number of 15-year-old students participating in PISA attended First- and Second-Year classes. Results for these groups are not reported due to the very small number of cases. Estimates in bold are statistically significantly different from the corresponding estimates for Third-year students.
Filled dots on a line indicate estimates that are statistically significantly different from the corresponding 2025 estimate for that group. White dots indicate estimates that are not statistically significantly different from the corresponding 2025 estimate for that group.

5.3.4. Mathematics performance by school type and DEIS status

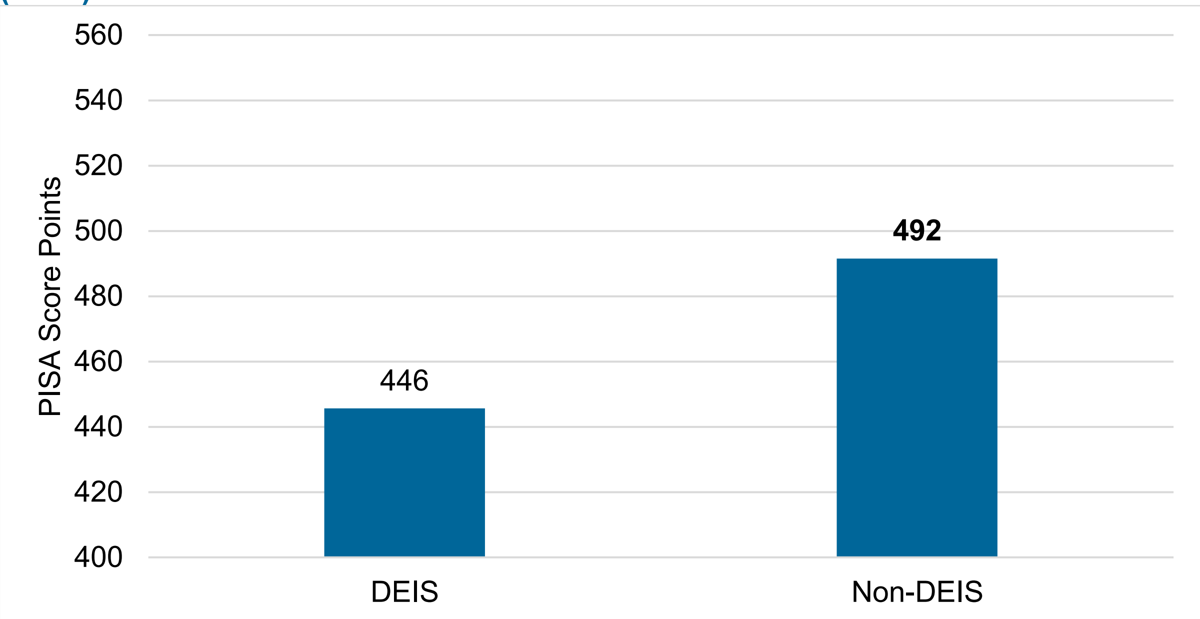
Student mathematics performance was also examined by school type and DEIS status. Students in secondary schools outperformed students in other school types by 27 points on average, while there was no difference in performance between students attending ETB schools and those attending community/comprehensive schools (Figure 5.17). Students attending non-DEIS schools outperformed their peers in DEIS schools in mathematics by 46 points on average (Figure 5.18).

Figure 5.17. Mean mathematics performance in Ireland, by school type (2025)



Note. Estimates for students in secondary and community/comprehensive schools in bold are statistically significantly different from the corresponding estimates for students in ETB schools.

Figure 5.18. Mean mathematics performance in Ireland, by school DEIS status (2025)



Note. Estimates for students in non-DEIS schools in bold are statistically significantly different from the corresponding estimates for students in DEIS schools.

Chapter 6: Performance in computational problem solving

This chapter focuses on student performance in computational problem solving, which was assessed as the cognitive element of learning in the digital world, the innovative domain in PISA 2025. It examines how students performed in Ireland and in other participating countries/economies and provides reference estimates for the OECD and the EU. Overall computational problem solving performance and performance across the two computational problem solving subscales are presented. Student performance is also described in terms of proficiency levels. Finally, the chapter examines the relationship between computational problem solving performance and key student- and school-level factors.

Unless otherwise specified, all performance differences and changes discussed in this chapter refer to statistically significant differences/changes.

6.1. Overall computational problem solving performance

6.1.1. Computational problem solving performance in PISA 2025

Table 6.1 presents the overall mean computational problem solving performance for all countries/economies participating in PISA 2025 with reported scores, as well as the corresponding averages across OECD and EU countries.[20] Ireland achieved a mean score of 511 points on the overall computational problem solving scale, which was higher than both the OECD (500 points) and EU (492 points) averages. The highest-performing country/economy in computational problem solving was Macao (China), which scored higher than all other participants. Japan had the highest mean performance among OECD countries, while Estonia was the top performer in the EU.

[20] Six countries, Cambodia, Mauritius, Kurdistan region (Iraq), Rwanda, Dushanbe (Tajikistan), and Zambia, did not take part in the innovative domain of learning in the digital world.

Table 6.1. Mean computational problem solving performance for all countries/economies, the OECD, and the EU (2025)

Country	Mean	SE	SD	IRL	Country	Mean	SE	SD	IRL
Macao (China)	572	(1.0)	72	↑	Malta	463	(2.2)	120	↓
Singapore	563	(1.4)	91	↑	Uruguay	462	(2.0)	96	↓
B-S-J-Z (China)	560	(1.6)	74	↑	Viet Nam	461	(3.0)	81	↓
Japan	557	(3.2)	95	↑	Greece	461	(3.0)	96	↓
Chinese Taipei	551	(2.4)	94	↑	Mexico	453	(2.0)	80	↓
Hong Kong (China)	545	(2.4)	99	↑	Moldova	452	(2.4)	88	↓
Estonia	541	(1.8)	81	↑	Qatar	452	(1.6)	108	↓
Korea	538	(2.9)	100	↑	Costa Rica	452	(2.4)	84	↓
Australia	532	(1.7)	95	↑	Kazakhstan	449	(1.4)	84	↓
New Zealand*	531	(1.6)	95	↑	Israel	444	(3.3)	123	↓
Canada*	525	(1.6)	94	↑	Mongolia	443	(2.1)	81	↓
United Kingdom	523	(1.9)	97	↑	Romania	442	(4.2)	119	↓
Switzerland	520	(2.3)	96	↑	Serbia	437	(3.2)	108	↓
Czechia	517	(2.3)	91	↔	Albania*	437	(2.6)	83	↓
United States*	513	(5.1)	103	↔	Peru	436	(2.7)	91	↓
Lithuania	512	(1.7)	86	↔	Philippines	434	(2.0)	79	↓
Ireland	511	(1.6)	80		Colombia	432	(3.9)	105	↓
Austria	509	(2.6)	97	↔	Cyprus	427	(1.9)	120	↓
Belgium	508	(2.5)	96	↔	Indonesia	427	(2.6)	79	↓
Latvia	507	(1.8)	91	↔	Saudi Arabia	426	(2.8)	95	↓
Poland	507	(2.9)	101	↔	Bulgaria	425	(4.1)	120	↓
Finland	507	(2.1)	98	↔	Montenegro	423	(1.5)	104	↓
Netherlands*	506	(2.5)	106	↔	Ecuador	422	(2.4)	93	↓
Denmark	506	(2.3)	92	↓	Georgia	413	(2.8)	106	↓
Luxembourg	506	(1.3)	102	↓	Jordan	408	(2.3)	83	↓
Sweden	503	(2.2)	98	↓	Brazil	406	(2.0)	111	↓
Portugal	501	(2.9)	93	↓	Argentina	403	(3.3)	113	↓
Spain	499	(1.9)	96	↓	Uzbekistan	402	(1.9)	75	↓
Germany	498	(2.8)	101	↓	El Salvador	401	(2.5)	92	↓
France	497	(2.9)	106	↓	Palestinian Authority	393	(2.5)	92	↓
Slovak Republic	497	(2.3)	97	↓	North Macedonia	389	(1.4)	114	↓
Brunei Darussalam	496	(0.8)	77	↓	Azerbaijan	388	(3.5)	119	↓
Hungary	495	(2.5)	96	↓	Kyrgyzstan	388	(2.3)	88	↓
Norway*	491	(2.0)	106	↓	Dominican Republic	379	(2.8)	101	↓
Italy	490	(2.2)	91	↓	Morocco	374	(3.6)	91	↓
Iceland	490	(1.9)	99	↓	Guatemala	369	(3.3)	104	↓
Slovenia	486	(1.4)	103	↓	Kosovo	359	(1.8)	106	↓
Malaysia	484	(1.8)	71	↓	Lebanon	358	(4.0)	132	↓
Ukraine	478	(2.2)	89	↓	Armenia	354	(2.7)	123	↓
Thailand	476	(2.5)	82	↓	Paraguay	352	(2.5)	106	↓
United Arab Emirates	476	(1.5)	106	↓	Kenya	278	(3.6)	103	↓
Türkiye	473	(1.9)	83	↓					
Chile	466	(2.7)	96	↓	OECD average	500	(0.4)	96	↓
Croatia	464	(2.0)	104	↓	EU average	492	(0.5)	99	↓

(green)	Statistically significantly above OECD average	↑	Statistically significantly above Ireland
(white)	At OECD average	↔	Not different from Ireland
(blue)	Statistically significantly below OECD average	↓	Statistically significantly below Ireland

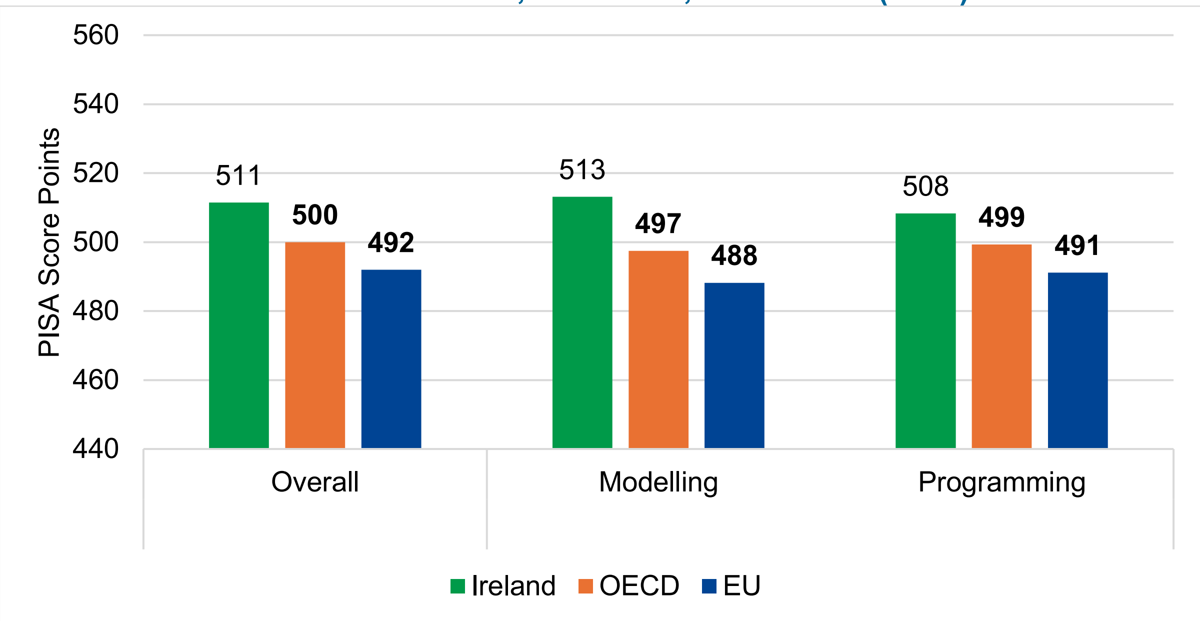
Notes. The OECD average is the mean across all 38 OECD countries. The EU average is the mean across all 27 EU countries.
*Caution is required when interpreting estimates for this country/economy because one or more PISA sampling standards were not met.

Of the 85 countries/economies participating in the innovative domain in PISA 2025, 13 had mean computational problem solving scores higher than Ireland, a further nine countries/economies had mean scores that did not differ statistically significantly from that of Ireland, while the remaining 62 countries/economies had lower mean computational problem solving scores. At the OECD level, eight countries (Japan, Estonia, Korea, Australia, New Zealand, Canada, the United Kingdom, and Switzerland) had mean computational problem solving scores that were higher than that of Ireland, while in the EU, only one country (Estonia) outperformed Ireland.[21] [22]

6.2. Performance on computational problem solving subscales

Apart from the overall scale, performance in computational problem solving was also measured across two competency subscales: (i) modelling and (ii) programming. Figure 6.1 presents overall computational problem solving performance, as well as performance across the two competency subscales, for Ireland, the OECD, and the EU.

Figure 6.1. Mean performance on the overall computational problem solving scale and the subscales in Ireland, the OECD, and the EU (2025)



Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

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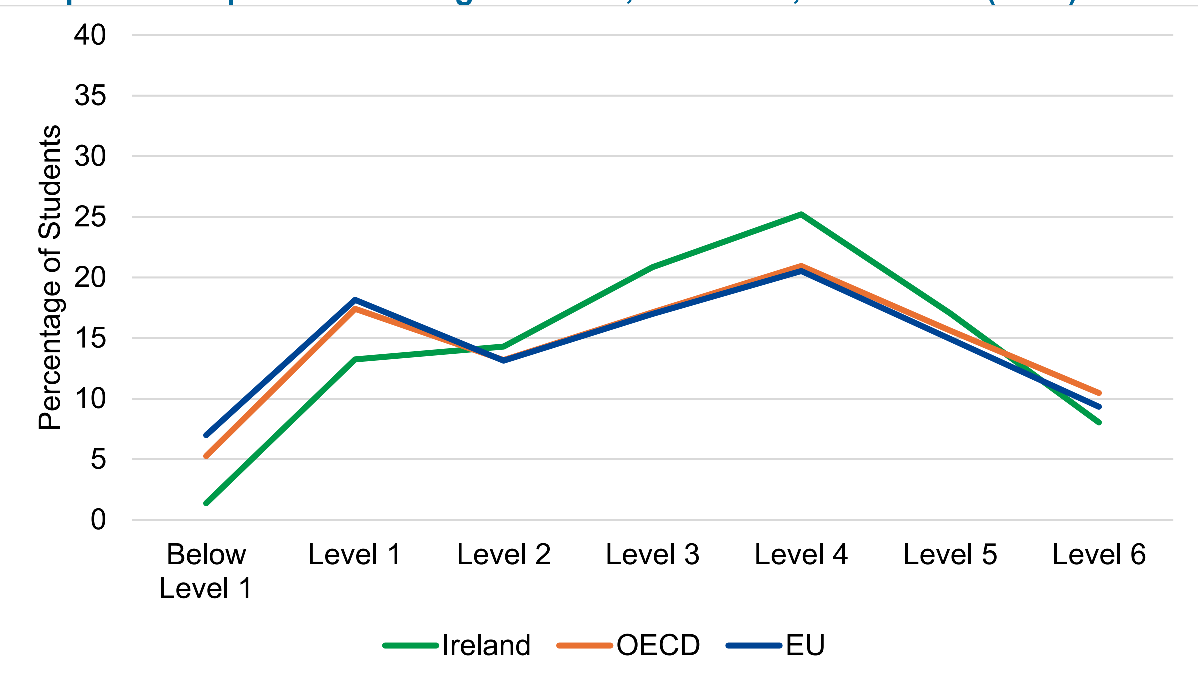
[21] The mean computational problem solving score for Northern Ireland was 513, which is not statistically significantly different from Ireland's mean score.
[22] Ireland's rank in computational problem solving is estimated to range from 13th to 25th among all participating countries/economies and from 8th to 20th among OECD countries (OECD, 2026b, Table 1.2.o6).

Ireland performed above the OECD and EU averages on both subscales. In Ireland, performance in modelling was higher than performance in the programming subscale, while the opposite was the case on average across OECD and EU countries.

6.3. Performance on computational problem solving proficiency levels

PISA scores can be mapped to proficiency levels, allowing for a more descriptive interpretation of students' knowledge and skills. Figure 6.2 presents the proportion of students performing at each level in PISA 2025 for Ireland, as well as across the OECD and the EU on average; Table B.4 (Appendix B) outlines the types of tasks students can perform at each of the proficiency levels in computational problem solving.

Figure 6.2. Percentages of students performing at each proficiency level in computational problem solving in Ireland, the OECD, and the EU (2025)



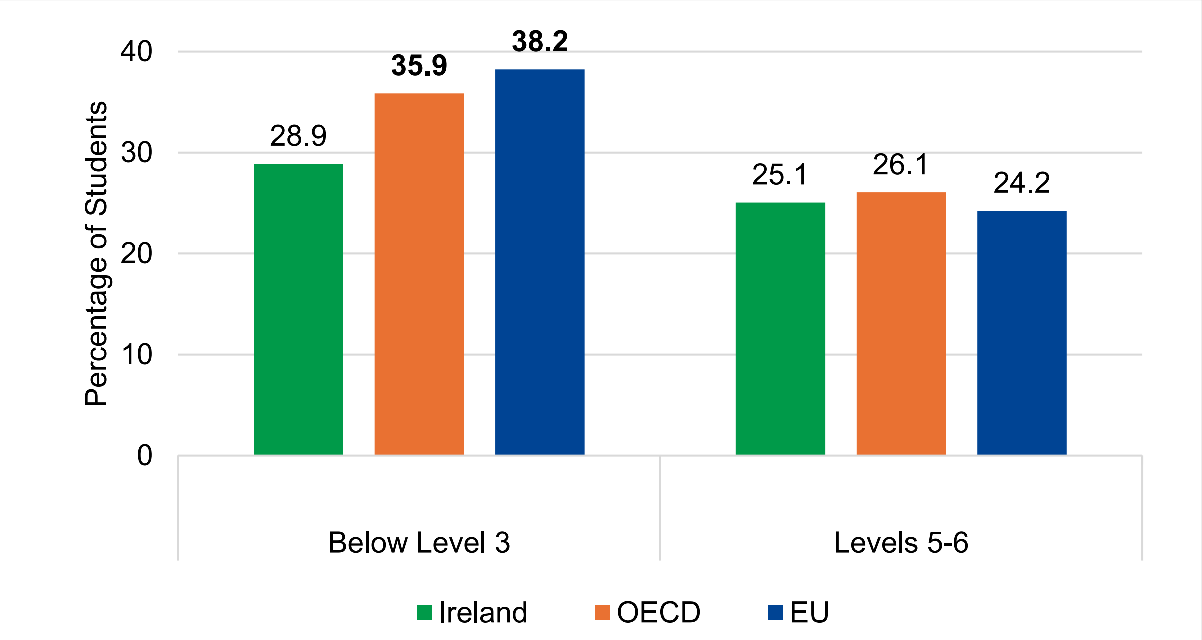
		Below Level 1	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Ireland	%	1.4	13.2	14.3	20.8	25.2	17.0	8.0
OECD	%	**5.3**	**17.4**	13.2	**17.1**	**20.9**	**15.6**	**10.5**
EU	%	**7.0**	**18.1**	13.1	**17.0**	**20.5**	**14.9**	**9.3**

Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

Ireland shows a narrower distribution of student performance than either the OECD or the EU, with higher proportions of students performing at the middle levels and fewer at the lower and the highest proficiency levels than across the OECD and the EU. Differences in proportions of students performing at each level in Ireland, compared to the OECD and EU averages, were statistically significant at every level, except Level 2.

For computational problem solving, unlike science, reading, or mathematics, there is no formal baseline threshold. However, Level 3 is considered a benchmark that marks the point at which students begin to demonstrate sufficiently solid knowledge and skills to progress more rapidly. Therefore, students performing below Level 3 are classified as “low performers”, while those performing at Levels 5 and 6 are considered “top performers”. Figure 6.3 presents the percentages of low- and top-performing students in computational problem solving in PISA 2025 for Ireland, the OECD, and the EU. Ireland had a lower share of low performers compared to both the OECD and EU averages. The proportion of top performers in Ireland was not statistically significantly different from that of the OECD and EU averages.

Figure 6.3. Percentages of low and top performers in computational problem solving in Ireland, the OECD, and the EU (2025)



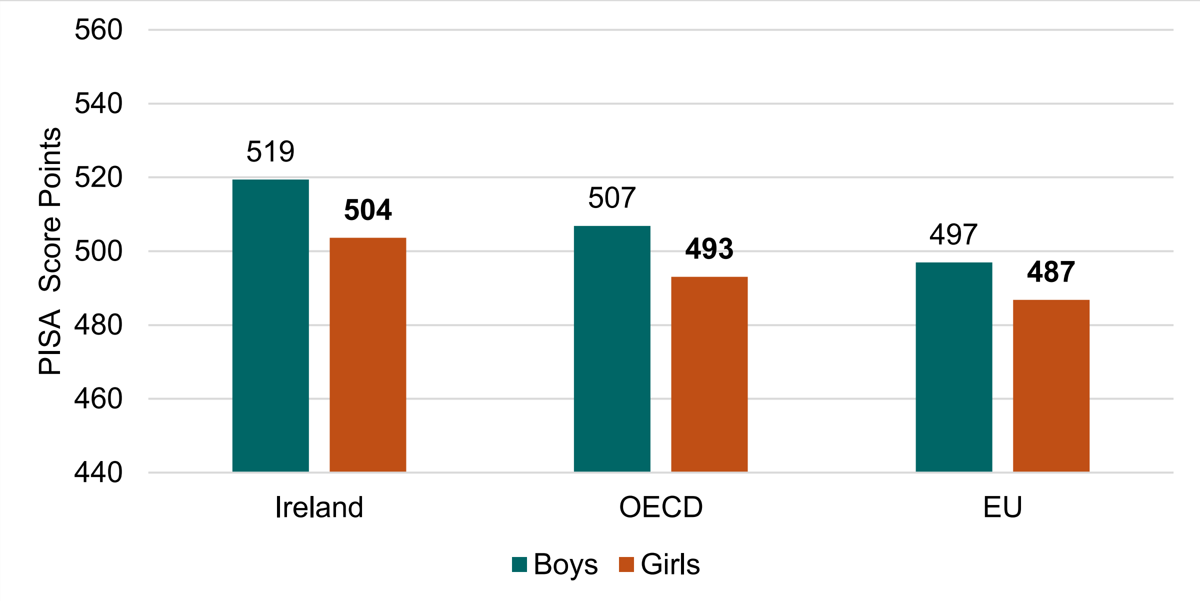
Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
OECD/EU estimates in bold are statistically significantly different from the corresponding estimates for Ireland.

6.4. Performance by selected background and contextual variables

6.4.1. Computational problem solving performance by gender

Figure 6.4 presents students' overall computational problem solving performance by gender in Ireland, as well as on average across OECD and EU countries. In Ireland, boys outperformed girls by 16 points on average. Similarly, boys achieved higher mean scores than girls across the OECD (difference of 14 points) and the EU (difference of 10 points) on average. The gender gap in computational problem solving performance was larger in Ireland compared to the EU average, but not significantly different to the OECD average.

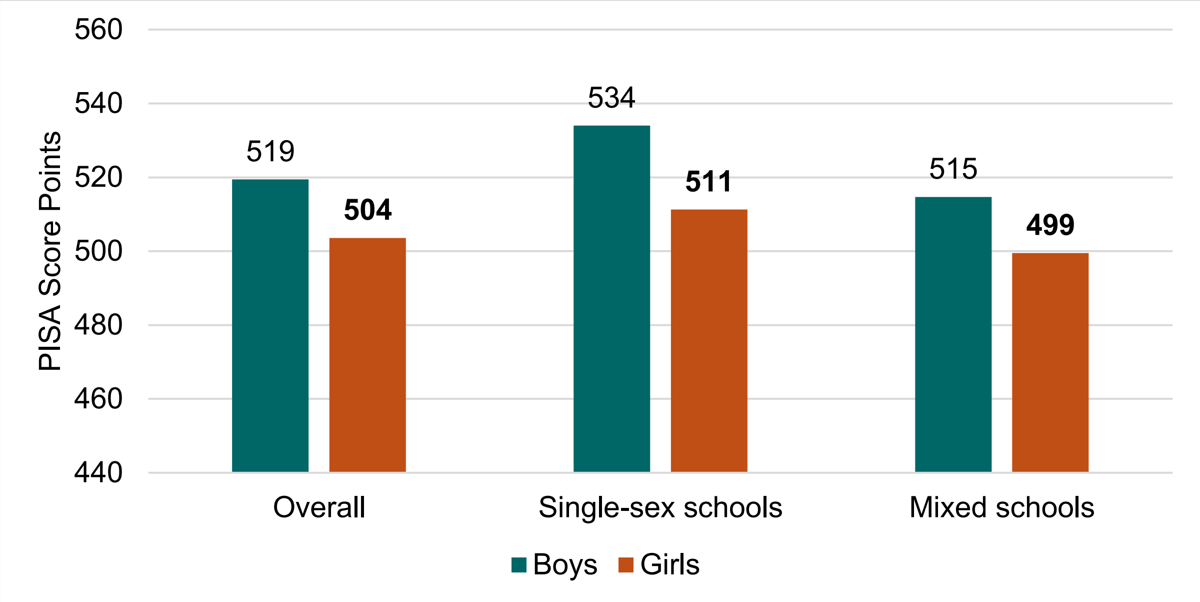
Figure 6.4. Mean computational problem solving performance in Ireland, the OECD, and the EU, by gender (2025)



Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

Given that approximately one third of students participating in PISA 2025 in Ireland attended single-sex schools, gender differences in performance were examined between boys and girls in mixed schools and between students attending single-sex schools. As shown in Figure 6.5, the gender performance gap, in favour of boys, was substantially larger among students attending single-sex schools (difference of 23 points), compared to those in mixed schools (difference of 15 points). Both boys and girls in single-sex schools outperformed their peers in mixed schools.[23]

Figure 6.5. Mean computational problem solving performance for boys and girls in Ireland, by school gender composition (2025)



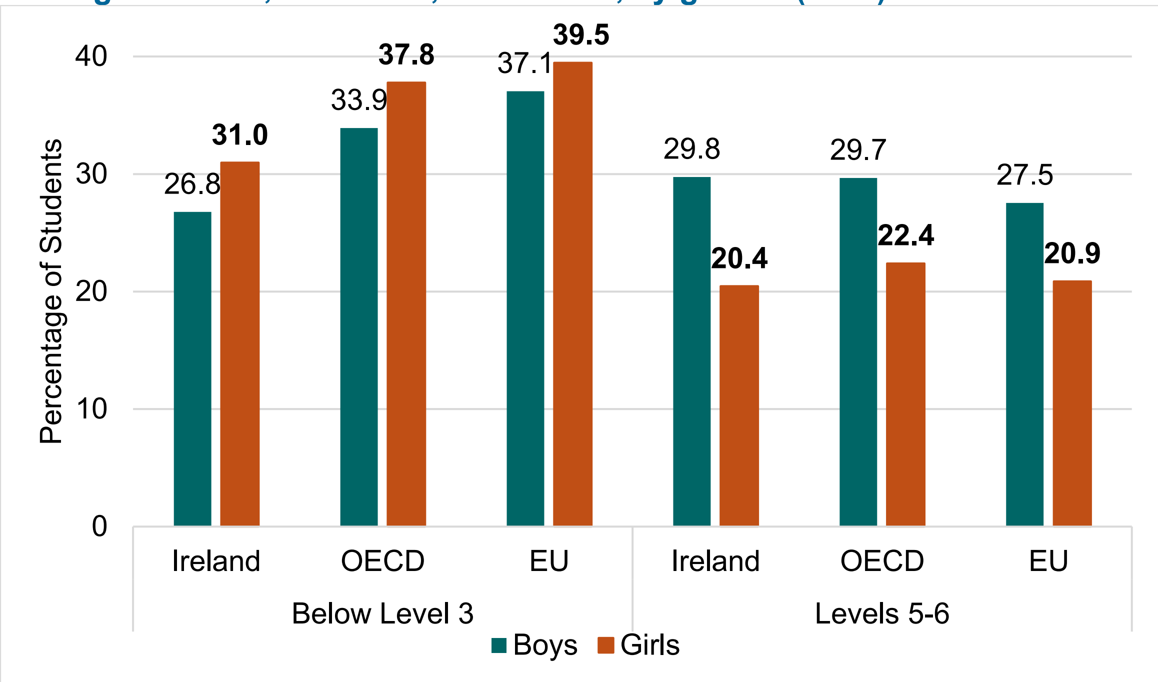
Note. Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

Gender differences in performance were also examined with reference to proficiency levels (Figure 6.6). In Ireland and across the OECD and the EU, higher proportions of girls performed below Level 3 than compared to boys. In Ireland, and across both OECD and EU countries on average, boys were more likely than girls to be top performers in computational problem solving.

As shown previously (Figure 6.3), when comparing proficiency levels between Ireland and both the OECD and EU averages, a lower proportion of students in Ireland performed below Level 3. Figure 6.6 shows that this pattern applies to both boys and girls. With regard to top performers, Ireland had a lower proportion of girls performing at Levels 5 and 6 than the corresponding OECD average, but a similar proportion to the EU average. The proportion of boys performing at Levels 5 and 6 in Ireland was similar to the OECD average and higher than the EU average.

[23] Additional analysis indicated that the higher mean performance of students attending single-sex schools compared with those attending mixed schools was not fully explained by students' ESCS (Figure C.1, Appendix C). Furthermore, among students attending single-sex schools, the larger gap between boys' and girls' performance (relative to the gender gap in mixed schools) was not explained by differences in ESCS (Figure C.2, Appendix C).

Figure 6.6. Percentage of low and top performers in computational problem solving in Ireland, the OECD, and the EU, by gender (2025)

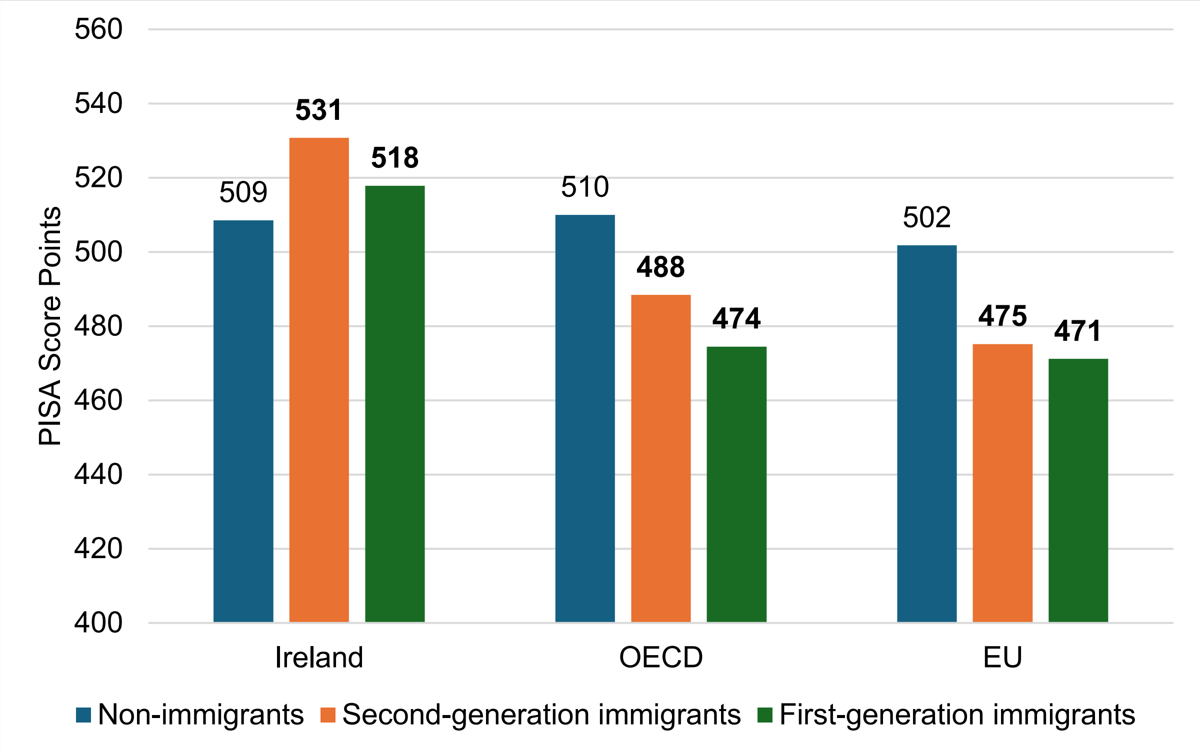


Notes. The OECD average is the mean across all 38 OECD countries.
The EU average is the mean across all 27 EU countries.
Estimates for girls in bold are statistically significantly different from the corresponding estimates for boys.

6.4.2. Computational problem solving performance by immigration status, socio-economic status, and language spoken at home

Overall, in Ireland, immigrant students outperformed non-immigrant students in computational problem solving by 16 points on average (OECD, 2026b). A more emphatic pattern emerged when immigrant students were examined by generation status (Figure 6.7). Non-immigrant students were outperformed by both second-generation immigrants (by 22 points) and first-generation immigrants (by 9 points) on average. In contrast, across the OECD and the EU, non-immigrant students outperformed both second- and first-generation immigrant students in computational problem solving. In Ireland, non-immigrant students performed at a similar level to their OECD peers and above their EU peers. Both second- and first-generation immigrants in Ireland outperformed their counterparts in the OECD and the EU.

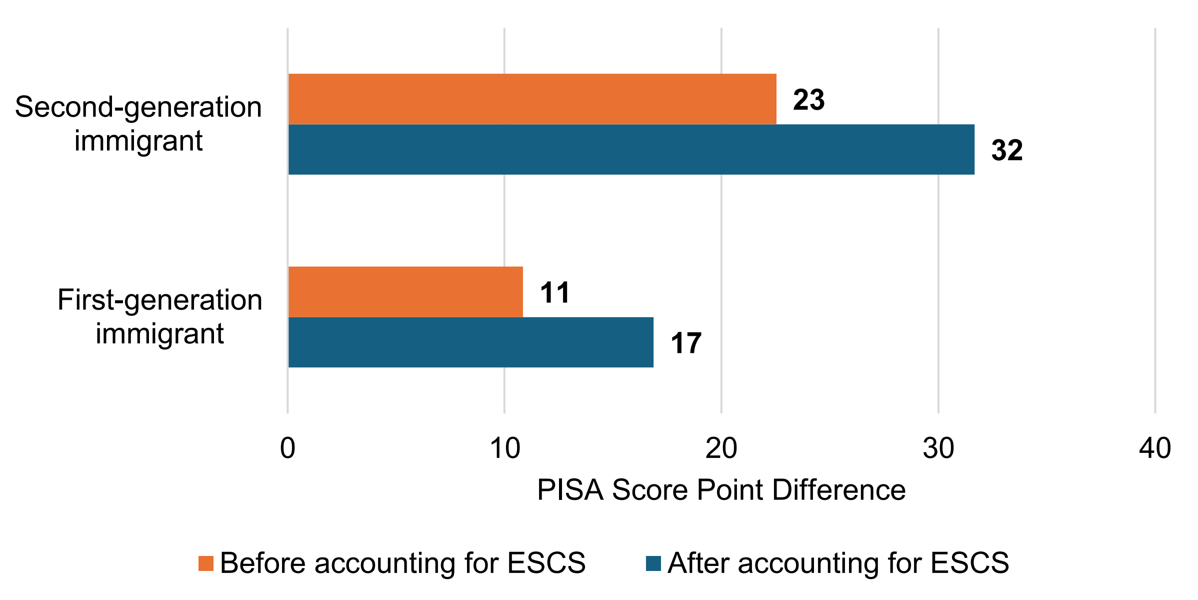
Figure 6.7. Mean computational problem solving performance in Ireland, the OECD, and the EU, by immigration status (2025)



Notes. The OECD average is the mean across all 37 OECD countries (Costa Rica excluded). The EU average is the mean across all 27 EU countries.
Estimates for immigrant student groups in bold are statistically significantly different from the corresponding estimates for non-immigrant students.

Given that students with an immigrant background tend to come from more disadvantaged socio-economic backgrounds (OECD, 2026b), differences in computational problem solving performance by immigration status were also examined after accounting for students' ESCS. Figure 6.8 presents differences in computational problem solving performance between non-immigrant students and each of the immigrant student groups before and after controlling for ESCS. The performance gap between non-immigrant and both second- and first-generation immigrant students increased further after accounting for ESCS and remained statistically significant.

Figure 6.8. Differences in mean computational problem solving performance between non-immigrants and the two immigrant groups in Ireland, before and after accounting for ESCS (2025)



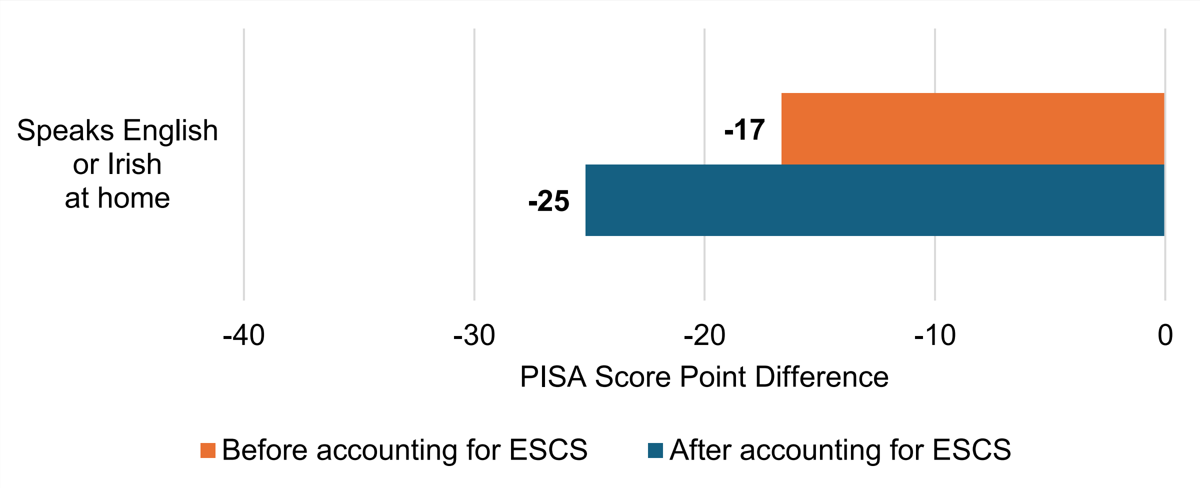
Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Non-immigrant students were used as the reference category.
Differences that are statistically significant are indicated in bold.

Students' ESCS was positively correlated with their performance on the PISA 2025 computational problem solving assessment in Ireland (r = 0.20, SE = 0.02), as well as across the OECD (r = 0.25, SE = 0.00) and the EU (r = 0.26, SE = 0.00), on average; the correlations were statistically significant and small to moderate in strength.

Figure 6.9 presents mean computational problem solving performance gaps in PISA 2025 between students who reported speaking English or Irish most of the time at home and those who reported speaking another language, before and after accounting for ESCS. Students who reported speaking a language other than English or Irish at home performed, on average, better in computational problem solving than their peers who reported speaking English or Irish at home. After accounting for ESCS, the difference between the two groups increased.

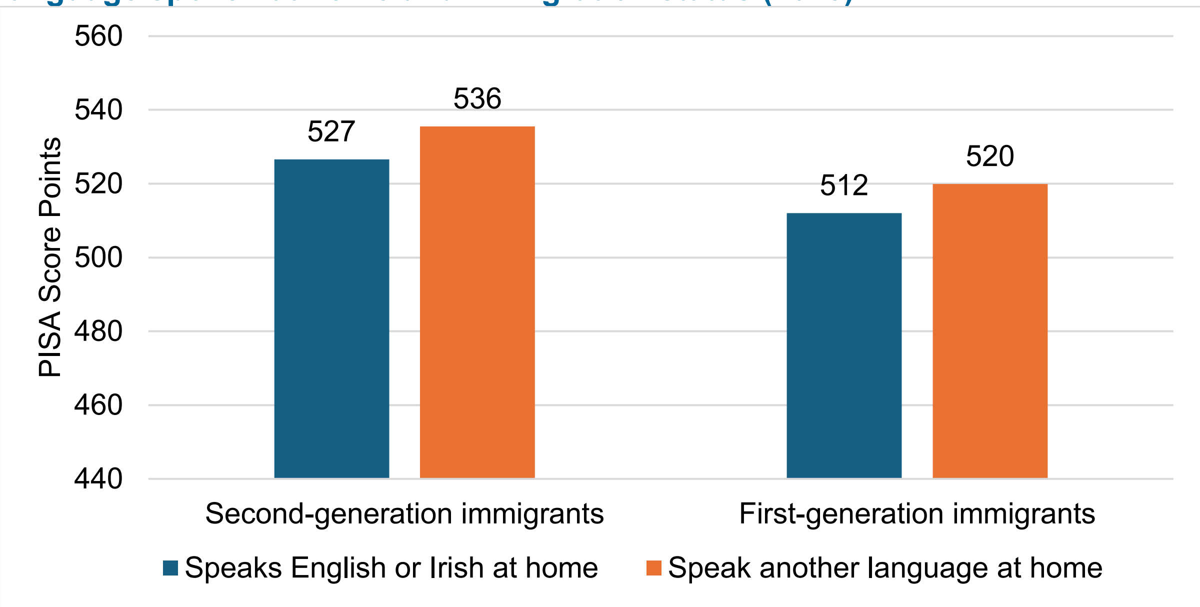
Given that very few non-immigrant students in Ireland reported speaking a language other than English or Irish at home (0.5%), differences in computational problem solving performance by language spoken at home were examined separately for the two immigrant groups. In both groups, students who reported speaking a language other than English or Irish at home performed better on average, but these differences were not statistically significant (Figure 6.10).

Figure 6.9. Differences in computational problem solving performance by language spoken at home in Ireland, before and after accounting for ESCS (2025)



Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Students who reported speaking a language other than English or Irish at home were used as the reference category.
Differences that are statistically significant are indicated in bold.

Figure 6.10. Mean computational problem solving performance in Ireland, by language spoken at home and immigration status (2025)

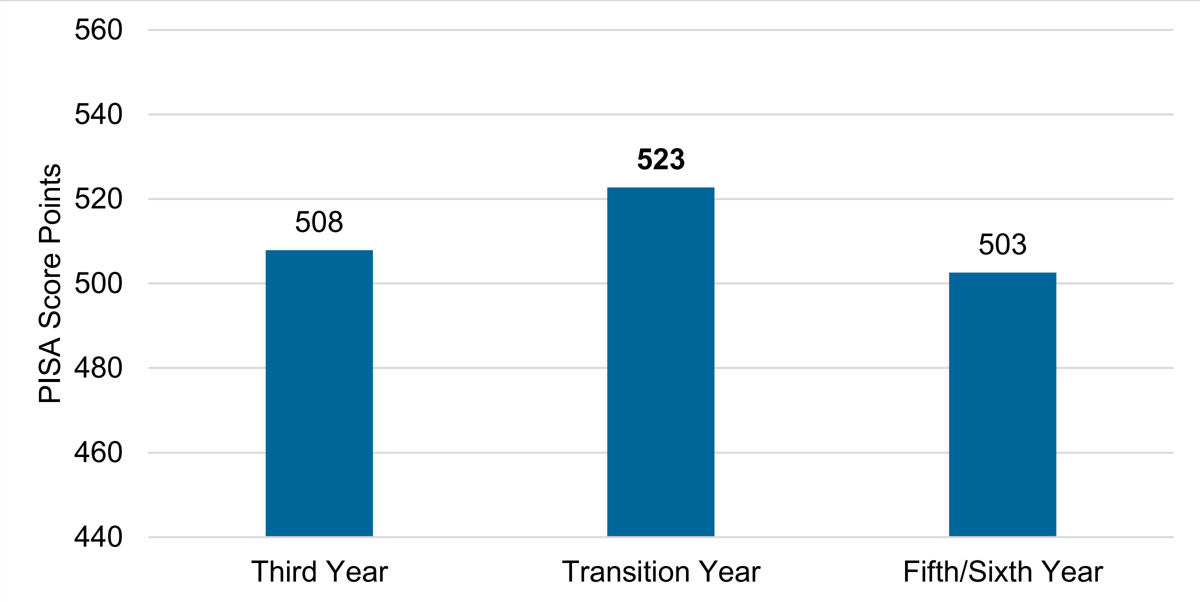


Note. Estimates for students speaking another language in bold are statistically significantly different from the corresponding estimates for students speaking English or Irish at home.

6.4.3. Computational problem solving performance by grade level

Student computational problem solving performance in Ireland was analysed by grade level. Transition Year students performed better, on average, than all other groups, followed by students in Third Year whose performance, though, was not statistically significantly higher than that of Fifth and Sixth Year students (Figure 6.11).

Figure 6.11. Trends in mean computational problem solving performance in Ireland, by grade level (2025)

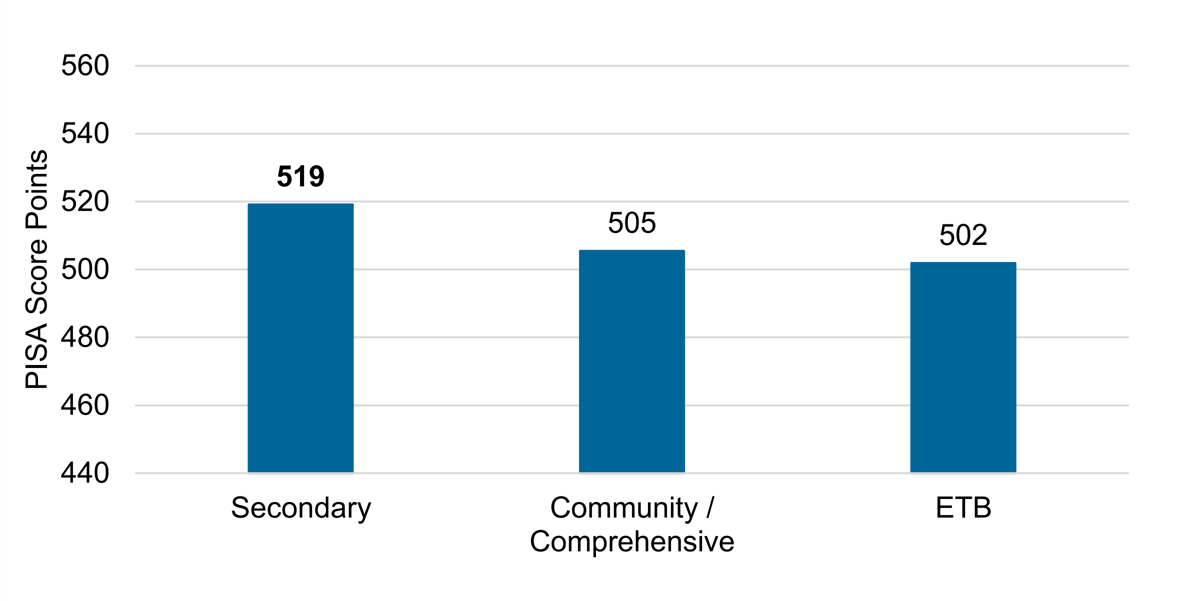


Notes. A very small number of 15-year-old students participating in PISA attended First- and Second-Year classes. Results for these groups are not reported due to the very small number of cases. Estimates in bold are statistically significantly different from the corresponding estimates for Third-year students.

6.4.4. Computational problem solving performance by school type and DEIS status

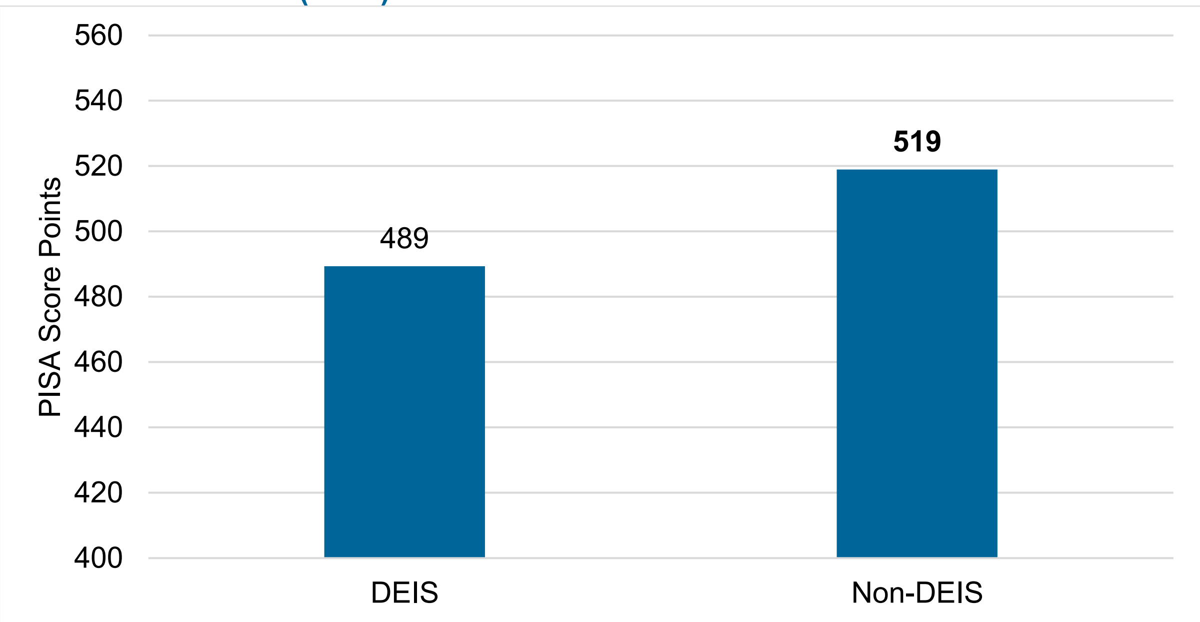
Student computational problem solving performance was also examined by school type and DEIS status. Students in secondary schools outperformed their peers in community/comprehensive (by 14 points) and ETB schools (by 17 points) on average. There was no statistically significant difference in performance between students attending ETB schools and those attending community/comprehensive schools (Figure 6.12). Finally, students attending non-DEIS schools outperformed their peers in DEIS schools in computational problem solving by 30 points on average (Figure 6.13).

Figure 6.12. Mean computational problem solving performance in Ireland, by school type (2025)



Note. Estimates for students in secondary and community/comprehensive schools in bold are statistically significantly different from the corresponding estimates for students in ETB schools.

Figure 6.13. Mean computational problem solving performance in Ireland, by school DEIS status (2025)



Note. Estimates for students in non-DEIS schools in bold are statistically significantly different from the corresponding estimates for students in DEIS schools.

Chapter 7: Summary and conclusions

This chapter summarises the key findings from PISA 2025 and presents the main conclusions, focusing on Ireland's performance across the four assessed domains of science, reading, mathematics, and computational problem solving.

7.1. Overall performance in science, reading, mathematics, and computational problem solving

Science was the major domain in PISA 2025, with students in Ireland achieving a mean science score that was above both the OECD and EU averages. Ireland performed better than the OECD and EU averages across all science competency subscales (explain phenomena scientifically, evaluate designs for scientific enquiry, and evaluate scientific information for decision making), as well as in the environmental science subdomain. Overall science performance in Ireland and across the OECD on average remained relatively stable compared to recent PISA cycles. A pattern of small declines was observed at the EU level, where the average science score in 2025 was lower than those achieved in 2015 and 2018.

In PISA 2025, students in Ireland achieved mean reading and mathematics scores that were above the corresponding OECD and EU averages. However, a decline in reading and mathematics performance was observed in Ireland in 2025 compared to previous recent cycles. Similar declines were observed between 2022 and 2025 across the OECD and the EU, on average, while over the longer term, the OECD and the EU saw larger drops than Ireland in their average reading and mathematics performance; these drops were statistically significantly larger than Ireland for the EU but not the OECD averages. The declines in both reading and mathematics performance in PISA 2025 in Ireland, the OECD and the EU were evident at both ends of the performance distribution, with the proportion of low performers increasing and the proportion of top performers declining.

In PISA 2025, student performance in computational problem solving was assessed, as the cognitive element of the innovative domain, measuring the extent to which students can make progress towards their learning goals and build functional solutions using computational tools and problem solving practices. Students in Ireland achieved a mean score in computational problem solving that was above the OECD and EU averages. Ireland also performed better on average than the OECD and the EU across both competency subscales (modelling and programming).

7.2. Low- and top-performing students

Across all four domains assessed, Ireland had lower proportions of low performers (performing below baseline level) compared to the OECD and EU averages. On the other hand, despite the fact that Ireland performed above the OECD and EU averages across all domains, the proportion of top performers (reaching Levels 5 and 6) in mathematics was lower than the OECD average and similar to the EU average. The proportion of top performers in Ireland was also similar to the OECD and EU averages for the domain of computational problem solving. In the case of science, the proportion of top performers in Ireland was above the EU average but similar to the OECD average. Reading was the only domain where the proportion of top-performing students was greater in Ireland than both the OECD and EU averages. This pattern is similar to findings from previous cycles and indicates that there is still room for improvement at the higher end of the performance distribution in Ireland.

The small share of top performers as well as the underperformance of high-achieving students in Ireland, relative to the country's strong overall performance, have appropriately received policy attention from the Department of Education and Youth (Shiel & Pitsia, 2022). Ireland’s latest Literacy, Numeracy, and Digital Literacy Strategy (2024–2033) (Government of Ireland, 2024a), as well as its predecessor, Literacy and Numeracy for Learning and Life (2011–2020) (Department of Education and Skills, 2011), emphasise the importance of providing appropriate challenge for higher-achieving learners through enrichment and advanced learning opportunities that keep them engaged and motivated, enabling them to excel and reach their full potential. This is reinforced in the Department of Education and Youth’s Literacy, Numeracy and Digital Literacy Implementation Plan to 2028, which places renewed emphasis on ensuring that exceptionally able learners are identified early and are appropriately supported and challenged, especially in the areas of literacy, numeracy, and digital literacy (Government of Ireland, 2024b).

Despite these efforts, there has been a decline in the percentage of top-performing students in reading and mathematics in Ireland. However, Ireland's overall decline in student reading and mathematics performance is not only characterised by a decline in the percentages of students reaching the highest levels of performance. It is also characterised by even larger increases in the percentages of students performing below baseline level in these domains. This indicates that renewed efforts are required to ensure that all students are supported to reach their potential and that any efforts to increase the share of top-performing students in Ireland should not compromise the performance of lower-performing students.

7.3. Performance differences by gender

Gender differences in performance were observed across all assessment domains in Ireland, as well as on average across OECD and EU countries. In Ireland, in the major domain of science, boys performed on average better than girls; this is in contrast to the patterns observed at the OECD and EU levels, where the gender differences were in favour of girls. In Ireland, boys were also more likely than girls to be top performers in science, while broadly similar proportions of boys and girls performed below baseline Level 2 in the same domain. The performance of both boys and girls in science in 2025 was broadly similar to that of previous cycles examined in this report.

Across Ireland, the OECD, and the EU, on average, boys achieved a higher mean score than girls in mathematics and computational problem solving. In both domains, the gender gaps in Ireland were larger than the corresponding gaps at the EU level, but broadly similar to the ones at the OECD level. Girls were more likely to perform below baseline level and less likely to reach the highest levels of performance, when compared to boys, in both mathematics and computational problem solving.

Across science, mathematics, and computational problem solving, gender differences in favour of boys were more pronounced at the highest than at the lowest levels of performance. This suggests that continued efforts are needed to support girls across the performance distribution, while placing particular emphasis on ensuring that they are able to reach their full potential at the highest levels of performance.

In contrast to the patterns observed in science, mathematics, and computational problem solving, girls outperformed boys, on average, in reading. While similar patterns were observed at the OECD and EU averages, the gender gap in reading was smaller in Ireland. Girls were also more likely to be top performers and less likely to be low performers in reading in Ireland, as well as on average across OECD and EU countries. In Ireland, the gender gap was more evident at the lower levels, indicating that attention should continue to be focused on supporting reading literacy, especially among lower-performing boys.

Both boys and girls attending single-sex schools had higher mean scores across all four domains than their counterparts in mixed schools. However, the advantage of attending a single-sex school was greater for boys than for girls in all domains, but to a lesser extent in mathematics and computational problem solving. This was associated with gender gaps in favour of boys in science, mathematics, and computational problem solving that were larger in single-sex schools than in mixed schools, while in reading, the gender gap in favour of girls was larger in mixed schools. The greater advantage of boys attending single-sex schools cannot be attributed to the students' socio-economic status, while this factor can only partially explain the overall higher performance of students attending single-sex schools compared to those attending mixed schools. Additional analysis is required to fully understand the reasons behind these patterns.

Addressing gender differences in reading and mathematics achievement is identified as a key priority in the Literacy, Numeracy, and Digital Literacy Strategy (Government of Ireland, 2024a). The strategy includes actions to promote reading for pleasure, particularly among boys, to build confidence in mathematics, and to encourage greater participation in numeracy-related pathways and careers, particularly among girls (Government of Ireland, 2024b). However, given the gender gap in the domains of science and computational problem solving, consideration should also be given to gender differences in other subjects, including supporting the gender at greater risk of underachievement within each domain and ensuring that higher-achieving students are appropriately challenged to reach their full potential (Department of Education and Skills, 2017).

7.4. Performance differences by immigration status, socio-economic status, and language spoken at home

The proportion of students with an immigrant background taking part in PISA in Ireland has gradually increased over the last decade, mostly due to the increased number of second-generation immigrants. Overall, immigrant and non-immigrant students (first- and second-generation immigrants considered together) performed broadly similarly in science and mathematics in PISA 2025 in Ireland. However, on average, non-immigrant students outperformed their immigrant peers in reading, while the opposite was observed in computational problem solving. These patterns differed from those observed on average across OECD and EU countries, where non-immigrant students achieved higher mean scores than immigrant students in all four assessed domains.

At the OECD and EU levels, non-immigrant students outperformed, on average, both first- and second-generation immigrant students in all four domains. In Ireland, however, different patterns emerged when immigrant students were examined by generation status. In science and reading, non-immigrant students had broadly similar average performance to second-generation immigrant students, but higher than first-generation immigrants. In mathematics, second-generation immigrant students achieved the highest mean score, outperforming both non-immigrant and first-generation immigrant students, but non-immigrant students still performed, on average, better than their first-generation immigrant peers. In computational problem solving, non-immigrant students performed less well, on average, than both first- and second-generation immigrants.

When socio-economic status was accounted for, second-generation immigrant students outperformed, on average, non-immigrant students in all domains. Also, after accounting for socio-economic status, the differences between non-immigrants and first-generation immigrant students in reading and mathematics performance reduced, and for mathematics, the gap between the two groups was no longer statistically significant.

Examining trends over time, non-immigrant students maintained stable performance in science, but their mean scores in reading and mathematics were lower in 2025 than in previous cycles. First-generation immigrant students experienced significant declines across all three domains compared with most previous cycles, with the decline in reading being particularly pronounced and substantially greater than the declines observed in the other domains and among non-immigrant students. Second-generation immigrant students, on the other hand, maintained stable performance across all assessed domains over time; in the case of science, this group's performance has improved since 2018. Overall, performance trends in the three core domains broadly resembled those observed for non-immigrant students.

Students who reported speaking English or Irish most of the time at home achieved higher mean scores in science and reading than students who reported speaking another language; however, after accounting for student socio-economic status, these differences were no longer statistically significant. In mathematics, there was no statistically significant difference between the two groups before controlling for socio-economic status, but after taking it into account, students who spoke another language at home outperformed those who spoke English or Irish. In computational problem solving, the performance advantage of students speaking another language at home became larger after accounting for socio-economic status. Among first-generation immigrant students, those who reported speaking English or Irish most of the time at home achieved higher mean reading scores in PISA 2025 than their peers who mainly spoke another language at home. Otherwise, differences by language spoken at home were not statistically significant within either first- or second-generation immigrant groups.

The performance difference between non-immigrant students and both first- and second-generation immigrant students tended to be narrower in Ireland compared to the OECD and EU averages. Nonetheless, the lower performance of first-generation immigrant students in Ireland relative to other students, particularly in reading and science, and the declines for this group in the three core domains indicate that these students continue to need support to reach their full potential. Attention is also needed to the underperformance of students who speak a language other than English or Irish at home, particularly in reading but also in science. Supporting learners at risk of educational disadvantage, particularly those from minority groups and those for whom English and Irish are additional languages, is explicitly identified as a key objective in the implementation plan for Ireland’s Literacy, Numeracy, and Digital Literacy Strategy (Government of Ireland, 2024b). The proposed actions include the provision of professional development and appropriate resources, particularly in early education settings, child-targeted and setting-targeted measures, whole-school literacy and numeracy interventions (e.g., DEIS programme), the promotion of after-school activities and project-based learning, and the enhancement of local community and cultural services.

7.5. Performance differences by grade level, school type, and DEIS status

Across all domains, students in Transition Year outperformed, on average, their peers in other grade levels. Students attending secondary schools performed, on average, better than those attending ETB or community/comprehensive schools. Finally, students in DEIS schools had lower mean scores than their peers in non-DEIS schools.

With regard to DEIS, which remains one of the key areas in the national Literacy, Numeracy, and Digital Literacy Strategy (Government of Ireland, 2024a), the largest difference was observed for science, with somewhat narrower gaps in reading and mathematics, while the gap between students in DEIS and non-DEIS schools was considerably narrower for computational problem solving. The minimisation of the performance gaps between DEIS and non-DEIS schools remains a key aim of the latest DEIS Strategy to 2035 (Department of Education and Youth, 2025). Comparisons of performance with previous PISA cycles were not undertaken because of the expansion of the DEIS programme and the lower response rate achieved in 2022, resulting in a small upward bias in the PISA 2022 estimates for Ireland, which was likely more pronounced for students attending DEIS schools than for those attending non-DEIS schools (Donohue, Perkins, Millar, et al., 2023).

7.6. Conclusions

In recent PISA cycles, Ireland generally demonstrated more stable patterns of performance that did not always mirror the declining trends observed across the OECD and the EU. In PISA 2025, however, Ireland experienced performance declines that were broadly similar to those observed internationally. While Ireland's performance in science remained broadly stable, there were drops in reading and mathematics, which were evident at both ends of the performance distribution, with the proportions of low performers increasing and the proportions of top performers decreasing. These declines in student performance in PISA 2025 cannot be attributed to a single cause or disruptive event, either in Ireland or internationally.

Despite these declines, Ireland has remained a high-performing education system, outperforming most participating countries and economies across all three core domains. In reading, Ireland has remained the highest-performing country in the EU, alongside Estonia. Ireland has also continued to have substantially lower proportions of low-performing students than the OECD and EU averages. Despite persistent inequalities in Ireland, including performance gaps and a persistent relationship between socio-economic background and achievement, Ireland has remained one of the more inclusive (measured by the proportion of 15-year-olds achieving at least baseline proficiency levels in one or more domains) and fairer (measured by the proportion of variance in performance explained by students' socio-economic status) systems (OECD, 2026b).

The PISA 2025 results provide valuable insights into what students in Ireland know and can do in a rapidly changing world. This report presents the initial findings, focusing on the performance of students in Ireland. The OECD's international report (Volume I) provides additional insights into the PISA results across all participating countries, with a particular focus on results at the OECD level; the report goes beyond performance to examine students' invested effort in and engagement with the assessment, their attitudes towards learning, and their experiences in and outside of school (OECD, 2026b). Further analysis and reporting of the PISA 2025 data for Ireland, focusing on the major domain of science and the innovative domain of learning in the digital world, is planned to provide additional insights for students, parents and guardians, educators, researchers, and policymakers. The results of forthcoming large-scale assessments, including PIRLS 2026, TIMSS 2027, and NAMER 2028, will provide further evidence on students' knowledge and skills at different stages of primary and post-primary education. The next cycle of PISA is scheduled to take place in 2029 with reading as the focal domain and *media and* *artificial intelligence literacy* as the innovative domain. In PISA 2029, Ireland will also participate in the *financial literacy* assessment for the first time.

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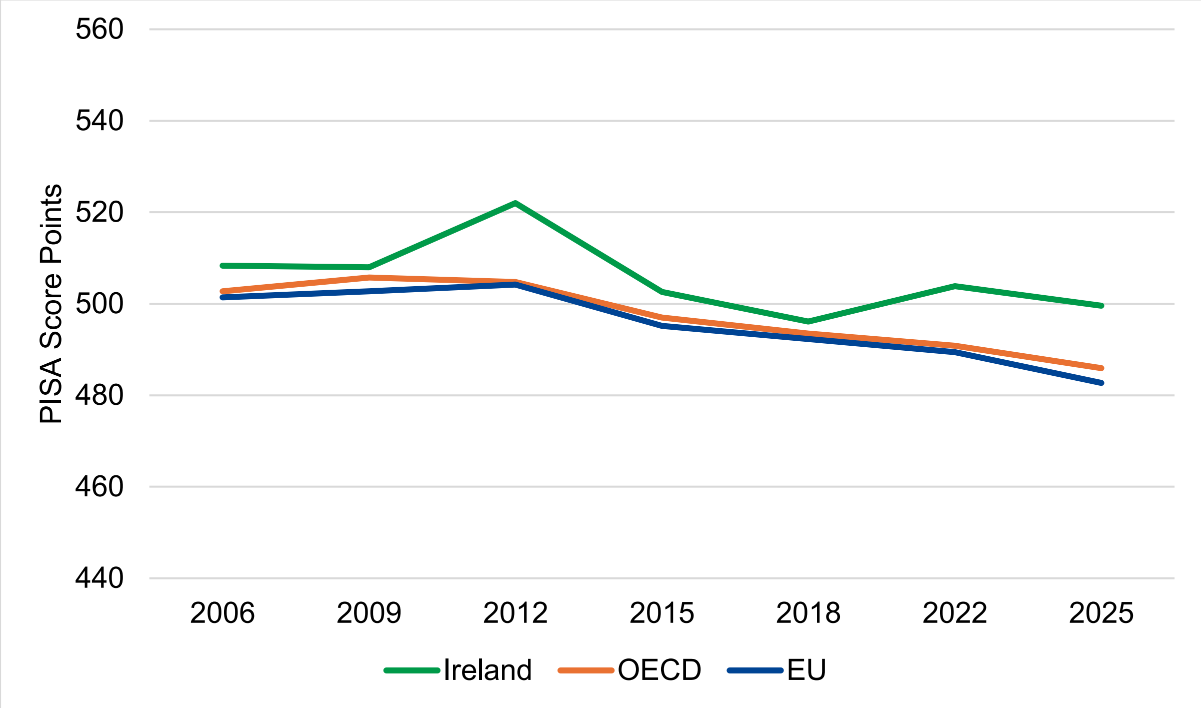
Appendices

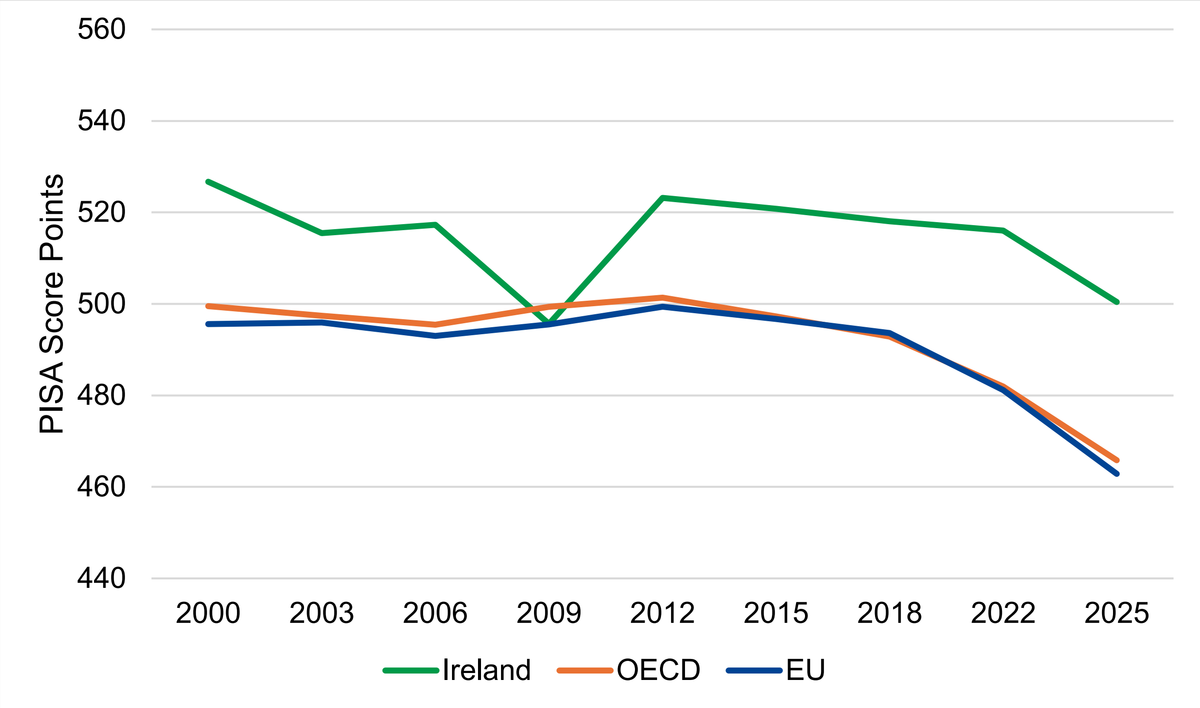
Appendix A. Long-term trends in performance

Figure A.1. Trends in mean science performance in Ireland, the OECD, and the EU (2006–2025)



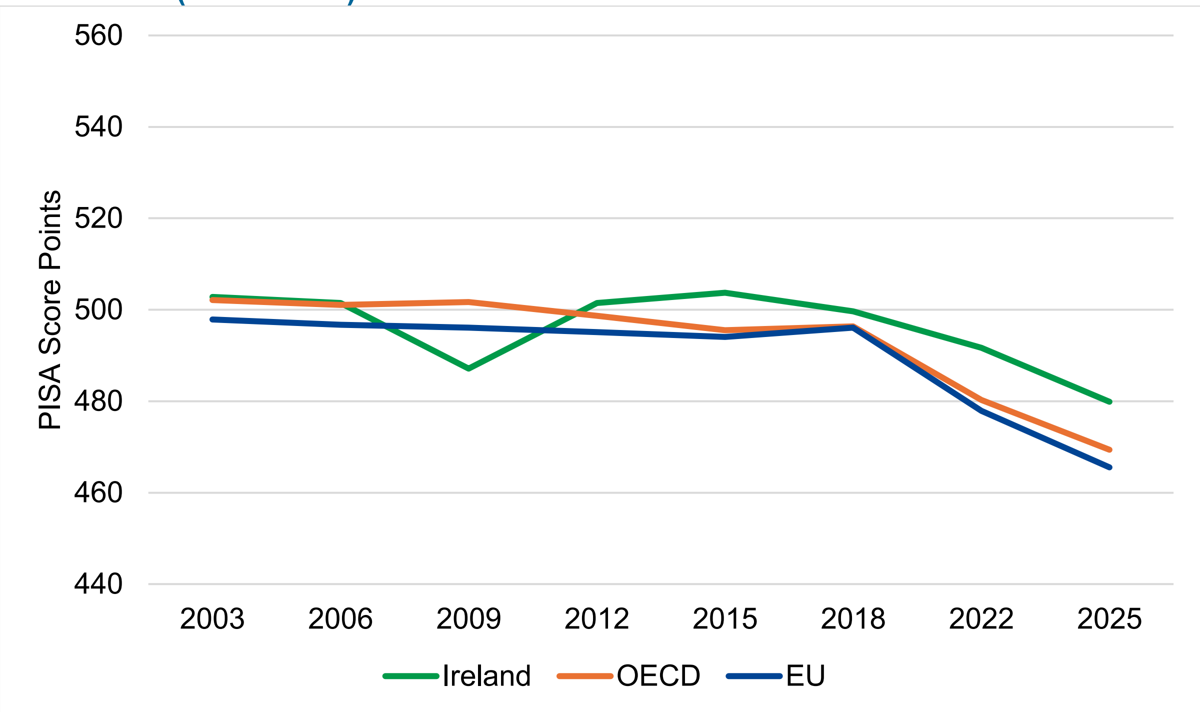
Notes. The OECD average is the mean across 23 OECD countries that have valid data for all examined cycles.
The EU average is the mean across 14 EU countries that have valid data for all examined cycles.

Figure A.2. Trends in mean reading performance in Ireland, the OECD, and the EU (2000–2025)



Notes. The OECD average is the mean across 23 OECD countries that have valid data for all examined cycles.
The EU average is the mean across 14 EU countries that have valid data for all examined cycles.

Figure A.3. Trends in mean mathematics performance in Ireland, the OECD, and the EU (2003–2025)



Notes. The OECD average is the mean across 23 OECD countries that have valid data for all examined cycles.
The EU average is the mean across 14 EU countries that have valid data for all examined cycles.

Appendix B. Proficiency levels

Table B.1. Science proficiency level cut-off points and descriptions

Level (Cut-Point)	Description of each level
Level 6 (707.93 and above)	Students, working in unfamiliar contexts, can draw on a range of scientific ideas of high demand from different disciplines to build models, consider their limitations, and use those models to construct or evaluate scientific explanations of complex phenomena. They can apply those explanations to make predictions not only about the phenomena but also about potential future developments or implications for society. Students can identify and explain the purposes of particular enquiries of different types, and which question they are answering. They can apply epistemic and procedural knowledge to evaluate competing designs of complex enquiries such as experiments, field studies or simulations and justify their choices of design. They can transform data from one representation to another and correctly interpret more complex data sets. Students can evaluate the interpretation of data sets drawing on procedural and epistemic knowledge to make reasoned judgements about their accuracy and precision. Drawing on multiple sources of information of high cognitive demand, containing both textual and graphical information, students can identify those sources which are most trustworthy based on one or more scientific criteria or more sophisticated fact-checking procedures. They can provide a justification for their choice drawing on content, procedural or epistemic knowledge of science, and/or social, ethical or economic considerations. In addition, they are able to identify flaws in sources of scientific information – either in their trustworthiness, their use of data, or in the arguments from the evidence. Based on their evaluation, they can provide justifications considering multiple issues for possible decisions and actions.
Level 5 (633.33 to less than 707.93)	Students can draw on a range of scientific ideas of medium to high demand to identify and construct explanations of familiar phenomena in all contexts. They can use these explanations to make predictions. They are able to identify both the strength and the limitation of models. Drawing on procedural and epistemic knowledge, students can distinguish scientific and non-scientific questions, and identify and explain the purposes of enquiries of different types. They are able to apply epistemic and procedural knowledge to evaluate alternative experimental/investigative designs and justify their choices. They can interpret more complex data representations and evaluate with reasons whether a given interpretation is flawed and explain what a more appropriate interpretation would be. Drawing on multiple sources of information of medium to high cognitive demand containing both textual and graphical information, students are able to identify those sources which are most trustworthy based on one or more scientific criteria or standard fact-checking procedures. They are able to provide a justification for their choice drawing on either content, procedural or epistemic scientific knowledge and either a social, ethical or economic consideration. In addition, they should be able to identify a flaw in a source - either in its trustworthiness, its use of data, or in the arguments it uses. Based on their evaluation, they can provide a reasoned justification for possible decisions and actions.
Level 4 (558.73 to less than 633.33)	Students can construct and evaluate scientific explanations of phenomena by drawing on a range of scientific principles and various representations of medium to high cognitive demand. Given a model, they are able to identify either a strength or a limitation. Drawing on procedural and epistemic

Level (Cut-Point)	Description of each level
	knowledge they can propose experimental or investigative designs involving two or more independent variables in a limited context. They are able to justify a design for an enquiry using procedural or epistemic knowledge. They can interpret straightforward data representations and evaluate the validity of scientific claims based on such data. Given a need for information to inform decision making or action, students can draw on multiple sources of medium cognitive demand, containing both textual and graphical information, to identify which is most trustworthy using a basic fact-checking procedure or another science-based criterion. They are able to provide a justification for their choice. In addition, given several possible errors in a source or its interpretation, they are able to select an appropriate weakness and explain the flaw.
Level 3 (484.14 to less than 558.73)	Students can construct or evaluate scientific explanations and models of phenomena with relevant cueing or support, by drawing on scientific principles and representations of medium cognitive demand. Given a simple model, they are able to identify either a strength or a limitation of the model. They can provide a justification for a simple experimental design involving control of variables or sampling of a population using elements of procedural and epistemic knowledge. Given an interpretation of a set of data, they are able to identify a flaw in the interpretation using procedural or epistemic knowledge. Alternatively, offered a set of simple data presented in a tabular or graphical representation, they are able to provide a valid interpretation. Given a need for information for decision making or action from sources of medium cognitive demand, students can identify which sources are relevant and summarise their arguments. They can use one or more criteria to judge whether a source is trustworthy and provide a justification for their choice.
Level 2 (409.54 to less than 484.14)	Students can identify an appropriate scientific explanation from a non-scientific explanation for everyday/common scientific phenomena in familiar personal, local or global contexts, by drawing on appropriate content knowledge of low to medium cognitive demand. They can offer a simple explanation of an everyday or familiar scientific phenomenon such as why you might need a balanced diet that draws on basic school science concepts. They are able to evaluate designs for simple enquiries drawing on elements of procedural knowledge and identify appropriate interpretations of data sets with simple relationships and identify outliers and possible reasons for their occurrence. Using their epistemic knowledge, they can identify appropriate explanations for variations in measurement. Given a need for information for decision-making or action, students can identify relevant sources of information from several of low to medium cognitive demand, that is needed to inform action on a given scientific problem and summarise its main argument. Using a single criterion e.g., relevant expertise, scientific consensus, they can identify whether the source is trustworthy.
Level 1a (334.94 to less than 409.54)	Students, in familiar personal, local or global contexts, can identify a claim or explanation of a simple phenomenon drawing on scientific information or evidence of low cognitive demand. Students can identify one relevant source of information from several, that is needed to inform action on a given scientific problem and identify the main finding or argument. Students can choose the most appropriate experimental design involving control of one variable from several by drawing on a low-level procedural knowledge.
Level 1b (260.54 to	Students, in everyday personal, or local contexts, can recognise a claim or explanation of a macroscopic phenomenon communicated in simple scientific language by recalling everyday scientific information or observations.

Level (Cut-Point)	Description of each level
less than 334.94)	Students can identify more than one relevant source of information needed to inform action on a given scientific issue from several. Drawing on low level procedural knowledge, they can identify from two experimental designs which would be the better to answer a given question. They can select from several interpretations of a simple data set/graphical display with a low level of cognitive demand which is the better.
Below Level 1b (below 260.54)	Students, in everyday personal contexts, can recognise an explanation of a common macroscopic phenomenon communicated in everyday language by recalling elements of everyday scientific information or observations at the lowest level of cognitive demand. Given a simple question, they can recognise a single source of scientific information that might be relevant. They are able to select which is better of two interpretations of a simple set of data.

Table B.2. Reading proficiency level cut-off points and descriptions

Level (Cut-Point)	Description of each level
Level 6 (698.32 and above)	Students can make multiple inferences, comparisons and contrasts that are both detailed and precise. They demonstrate a full and detailed understanding of one or more texts and may integrate information from more than one text. Tasks may require the reader to deal with unfamiliar ideas in the presence of prominent competing information, and to generate abstract categories for interpretations. Students can hypothesise about or critically evaluate a complex text on an unfamiliar topic, taking into account multiple criteria or perspectives and applying sophisticated understandings from beyond the text. A salient condition for accessing and retrieving tasks at this level is the precision of analysis and fine attention to detail that is inconspicuous in the texts.
Level 5 (625.61 to less than 698.32)	Students can locate and organise several pieces of deeply embedded information, inferring which information in the text is relevant. Reflective tasks require critical evaluation or hypothesis-making, drawing on specialised knowledge. Both interpreting and reflecting tasks require a full and detailed understanding of a text whose content or form is unfamiliar. For all aspects of reading, tasks at this level typically involve dealing with concepts that are contrary to expectations.
Level 4 (552.89 to less than 625.61)	Students can locate and organise several pieces of embedded information. They can also interpret the nuances of language in a section of text by taking into account the text as a whole. In other interpreting tasks, students demonstrate understanding and application of categories in an unfamiliar context. In addition, students at this level can use formal or public knowledge to hypothesise about or critically evaluate a text. Readers must demonstrate an accurate understanding of long or complex texts whose content or form may be unfamiliar.
Level 3 (625.61 to less than 552.89)	Students can locate, and in some cases recognise the relationship between, several pieces of information that must meet multiple conditions. They can also integrate several parts of a text in order to identify a main idea, understand a relationship or construe the meaning of a word or phrase. They need to take into account many features in comparing, contrasting or categorising. Often the required information is not prominent or there is much competing information; or there are other text obstacles, such as ideas that are contrary to expectations or negatively worded. Reflecting tasks at this level may require connections, comparisons, and explanations, or they may require the reader to evaluate a feature of the text. Some reflecting tasks require readers to demonstrate a fine understanding of the text in relation to familiar, everyday knowledge. Other tasks do not require detailed text comprehension but require the reader to draw on less common knowledge..
Level 2 (407.47 to less than 480.18)	Students can locate one or more pieces of information, which may need to be inferred and may need to meet several conditions. They can recognize the main idea in a text, understand relationships, or construe meaning within a limited part of the text when the information is not prominent and the reader must make low level inferences. Tasks at this level may involve comparisons or contrasts based on a single feature in the text. Typical reflecting tasks at this level require readers to make a comparison or several connections between the text and outside knowledge, by drawing on personal experience and attitudes.

Level (Cut-Point)	Description of each level
Level 1a (334.75 to less than 407.47)	Students can locate one or more independent pieces of explicitly stated information; they can recognise the main theme or author's purpose in a text about a familiar topic, or make a simple connection between information in the text and common, everyday knowledge. Typically, the required information in the text is prominent and there is little, if any, competing information. The student is explicitly directed to consider relevant factors in the task and in the text.
Level 1b (262.04 to less than 334.75)	Students can locate a single piece of explicitly stated information in a prominent position in a short, syntactically simple text with a familiar context and text type, such as a narrative or a simple list. Texts in Level 1b tasks typically provide support to the reader, such as repetition of information, pictures or familiar symbols. There is minimal competing information. Level 1b readers can interpret texts by making simple connections between adjacent pieces of information.
Level 1c (189.33 to less than 262.04)	Students can understand and affirm the meaning of short, syntactically simple sentences on a literal level, and read for a clear and simple purpose within a limited amount of time.
Below Level 1c (below 189.33)	There is insufficient information on which to base a description of the reading skills of these students.

Table B.3. Mathematics proficiency level cut-off points and descriptions

Level (Cut-Point)	Description of each level
Level 6 (698.32 and above)	Students can work through abstract problems and demonstrate creativity and flexible thinking to develop solutions. For example, they can recognise when a procedure that is not specified in a task can be applied in a non-standard context or when demonstrating a deeper understanding of a mathematical concept is necessary as part of a justification. They can link different information sources and representations, including effectively using simulations or spreadsheets as part of their solution. Students at this level are capable of critical thinking and have a mastery of symbolic and formal mathematical operations and relationships that they use to clearly communicate their reasoning. They can reflect on the appropriateness of their actions with respect to their solution and the original situation.
Level 5 (625.61 to less than 698.32)	Students can develop and work with models for complex situations, identifying or imposing constraints, and specifying assumptions. They can apply systematic, well-planned problem solving strategies for dealing with more challenging tasks, such as deciding how to develop an experiment, designing an optimal procedure, or working with more complex visualisations that are not given in the task. Students demonstrate an increased ability to solve problems whose solutions often require incorporating mathematical knowledge that is not explicitly stated in the task. Students at this level reflect on their work and consider mathematical results with respect to the real-world context.
Level 4 (552.89 to less than 625.61)	Students can work effectively with explicit models for complex concrete situations, sometimes involving two variables, as well as demonstrate an ability to work with undefined models that they derive using a more sophisticated computational-thinking approach. Students at this level begin to engage with aspects of critical thinking, such as evaluating the reasonableness of a result by making qualitative judgements when computations are not possible from the given information. They can select and integrate different representations of information, including symbolic or graphical, linking them directly to aspects of real-world situations. At this level, students can also construct and communicate explanations and arguments based on their interpretations, reasoning, and methodology.
Level 3 (625.61 to less than 552.89)	Students can devise solution strategies, including strategies that require sequential decision making or flexibility in understanding of familiar concepts. At this level, students begin using computational-thinking skills to develop their solution strategy. They are able to solve tasks that require performing several different but routine calculations that are not all clearly defined in the problem statement. They can use spatial visualisation as part of a solution strategy or determine how to use a simulation to gather data appropriate for the task. Students at this level can interpret and use representations based on different information sources and reason directly from them, including conditional decision making using a two-way table. They typically show some ability to handle percentages, fractions and decimal numbers, and to work with proportional relationships.
Level 2 (407.47 to less than 480.18)	Students can recognise situations where they need to design simple strategies to solve problems, including running straightforward simulations involving one variable as part of their solution strategy. They can extract relevant information from one or more sources that use slightly more complex modes of representation, such as two-way tables, charts, or two-dimensional

Level (Cut-Point)	Description of each level
	representations of three-dimensional objects. Students at this level demonstrate a basic understanding of functional relationships and can solve problems involving simple ratios. They are capable of making literal interpretations of results.
Level 1a (334.75 to less than 407.47)	Students can answer questions involving simple contexts where all information needed is present, and the questions are clearly defined. Information may be presented in a variety of simple formats and students may need to work with two sources simultaneously to extract relevant information. They are able to carry out simple, routine procedures according to direct instructions in explicit situations, which may sometimes require multiple iterations of a routine procedure to solve a problem. They can perform actions that are obvious or that require very minimal synthesis of information, but in all instances the actions follow clearly from the given stimuli. Students at this level can employ basic algorithms, formulae, procedures, or conventions to solve problems that most often involve whole numbers.
Level 1b (262.04 to less than 334.75)	Students can respond to questions involving easy to understand contexts where all information needed is clearly given in a simple representation (i.e., tabular or graphic) and, as necessary, recognise when some information is extraneous and can be ignored with respect to the specific question being asked. They are able to perform simple calculations with whole numbers, which follow from clearly prescribed instructions, defined in short, syntactically simple text.
Level 1c (189.33 to less than 262.04)	Students can respond to questions involving easy to understand contexts where all relevant information is clearly given in a simple, familiar format (for example, a small table or picture) and defined in a very short, syntactically simple text. They are able to follow a clear instruction describing a single step or operation.
Below Level 1c (below 189.33)	Below Level 1c, there is insufficient information on which to base a description of the mathematics skills of these students.

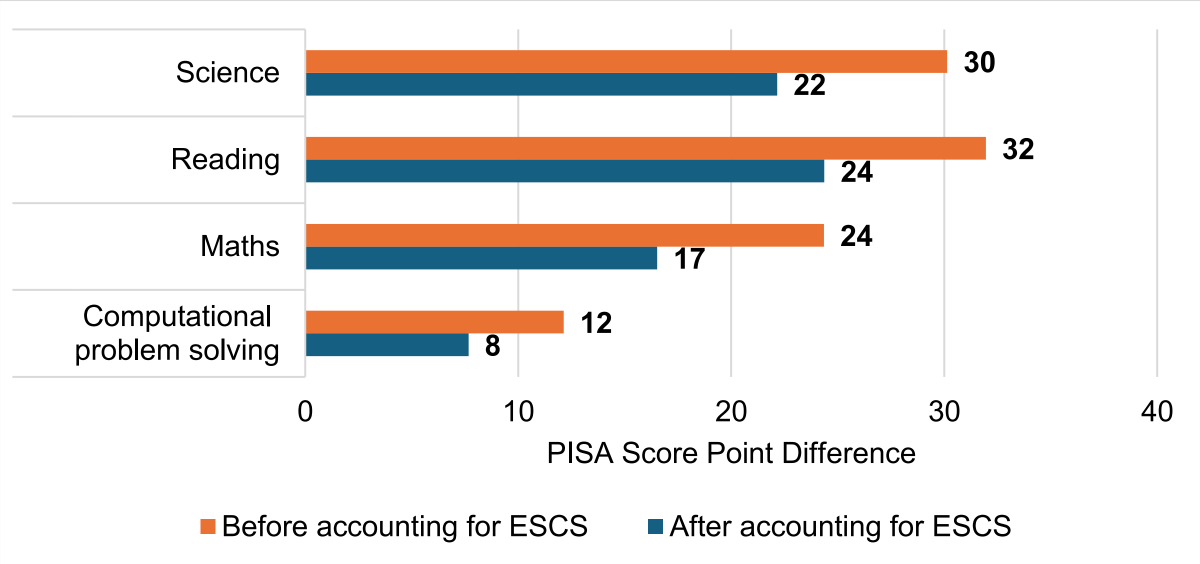
Table B.4. Computational problem solving proficiency level cut off points and descriptions

Level (Cut-Point)	Description
Level 6 (622 and above)	Students are proficient and efficient computational problem solvers. They create accurate, executable and effective computational artefacts that are optimal and free of redundancy. They successfully integrate fundamental computational operations and control structures such as iteration and conditional branching within their programs, including nesting structures within multiple layers. They vary the sequence in which these operations are executed (i.e., control flow) to construct generalisable algorithms that solve complex problems. Students can model complex systems with multiple variables by building and debugging advanced computational representations that they use to understand and predict phenomena or how a system will evolve under different conditions. They can generate comprehensive, systematically obtained data using computational tools and simulations to make accurate interpretations of the relationships between variables. Their approach to computational problem solving reflects mastery in the use of computational tools and the application of computational practices.
Level 5 (566 to less than 622)	Students can combine various control structures effectively—including iteration and conditional branching—to solve a range of computational problems. They build and debug functional and relatively sophisticated programs, identifying and implementing generalisable solution steps to address different parts of complex problems, though not always using optimal control flows or removing redundancies. They can construct, modify and adapt computational models that are accurate and fit for purpose for a range of scenarios, using systematic data-collection strategies when using simulations and other experimentation tools to determine and interpret relationships between variables. They typically generate sufficient or complete data using these strategies to support their inferences, though may draw some incorrect inferences about complex variable interactions. Students at this level demonstrate an advanced and effective use of different computational tools and practices to solve problems.
Level 4 (512 to less than 566)	Students can use a range of operations and control structures to build and debug moderately complex programs, typically achieving most task sub-goals on their way towards building functional and effective solutions. Students at this level show some evidence of attempting to build sophisticated programs, though solutions often contain bugs or redundancies. Students can build, manipulate and debug computational models to represent and make predictions about simple systems and can partially build and debug more complex system models to explore how variables interact. They carry out largely controlled, though sometimes incomplete, data collection using simulations and other computational tools. Students can interpret data to draw reasonable conclusions about how variables interact, including an emergent understanding of more complex interactions, and they can typically interpret visual representations of relationships between variables. Students at this level demonstrate that they can use various computational tools and apply a range of computational practices with success to moderately complex scenarios.
Level 3 (468 to less than 512)	Students can integrate varied operations and control structures to produce functional, but not optimal, programs that can solve simple problems. Students can achieve multiple sub-goals by using basic control flow to join their control structures though sequencing may be imperfect. They can identify relevant hypotheses and conduct controlled experiments to produce

Level (Cut-Point)	Description
	mostly relevant but incomplete data. They can adapt or modify existing models to infer relationships between some variables, even if their choice of parameter values are not the best possible. Students show some capability in analysing data and inferring simple relationships, and can build, debug and interact with executable representations of systems that support progress toward a solution. Students at this level demonstrate a developing understanding of the use and application of computational tools and practices to solve relatively simple problems.
Level 2 (427 to less than 468)	Students can use, add or modify simple operations and control structures in their computational artefacts. They can set up simple computational models, run basic simulations, and collect information about variables and how a system functions. Their experiments show emerging understanding of hypothesis testing, but students typically use non-systematic data collection strategies. Solutions are usually incomplete but may represent meaningful steps toward constructing functioning computational artefacts or to achieving simple, well-defined sub-goals. Students at this level demonstrate an emergent understanding of the use and application of computational practices to address different types of problems.
Level 1 (330 to less than 427)	Students interact with computational tools and artefacts at a surface level, making limited progress towards well-defined sub-goals. They can make minor modifications to existing representations of systems or to code in simple block-based programs, or can run simple models to generate limited data, but their actions are focused mostly on a basic manipulation of artefacts provided by the environment. Students at this level demonstrate an emerging familiarity with and use of computational tools and practices.
Below Level 1 (less than 330)	Students' engagement with computational tools and problems remains limited or involves a rudimentary exploration of the interface rather than being goal-directed.

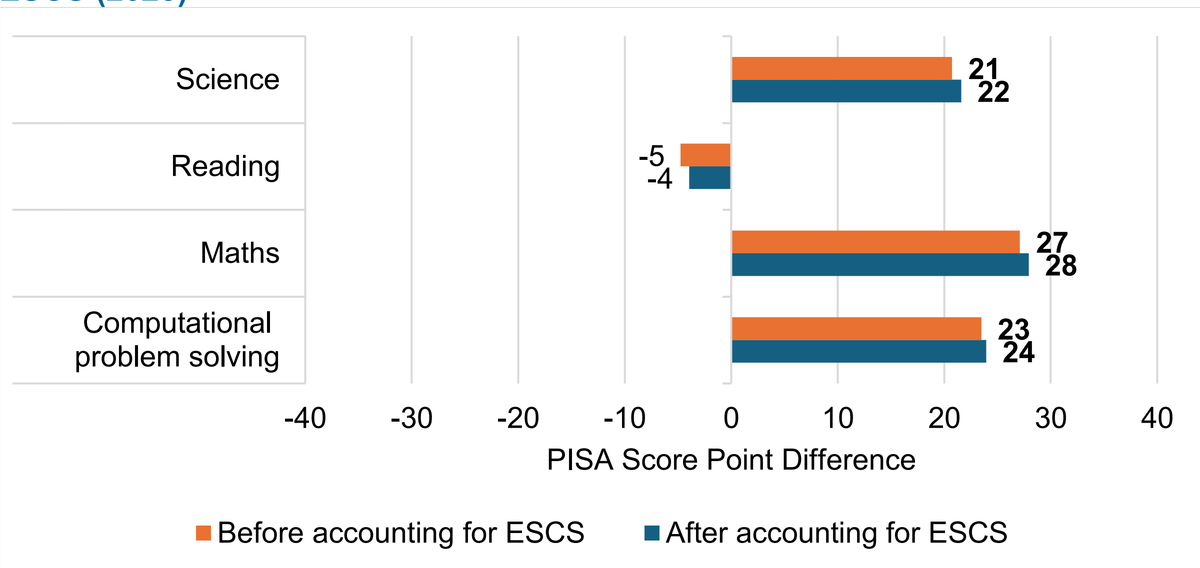
Appendix C. Performance in mixed and single-sex schools

Figure C.1. Performance difference for students attending single-sex schools compared to mixed schools, by domain, before and after accounting for ESCS (2025)



Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Students attending mixed schools were used as the reference category.
Differences that are statistically significant are indicated in bold.

Figure C.2. Performance difference for students attending all-boys schools compared to all-girls schools, by domain, before and after accounting for ESCS (2025)



Notes. Estimates before controlling for ESCS are restricted to students with valid ESCS values. Consequently, all estimates (before and after ESCS adjustment) are based on the same analytical sample.
Students attending all-girls schools were used as the reference category.
Differences that are statistically significant are indicated in bold.

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