





Insights into the literacy and numeracy achievement of Ireland's children and young people:

Findings from the Programme for International Student Assessment (PISA) and other large-scale assessments

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OECD's Programme for International Student Assessment (PISA)



- Measures the ability of students aged 15-16 to use their reading, mathematics and science knowledge and skills to meet real-life challenges
- First implemented in 2000 (on paper). Since 2015, administered digitally
- 81 countries/economies participated internationally in 2022
- PISA test scores are divided into 'proficiency levels'. Each level represents a cluster of skills and describes the types of tasks that students at that level of performance can be expected to successfully complete.



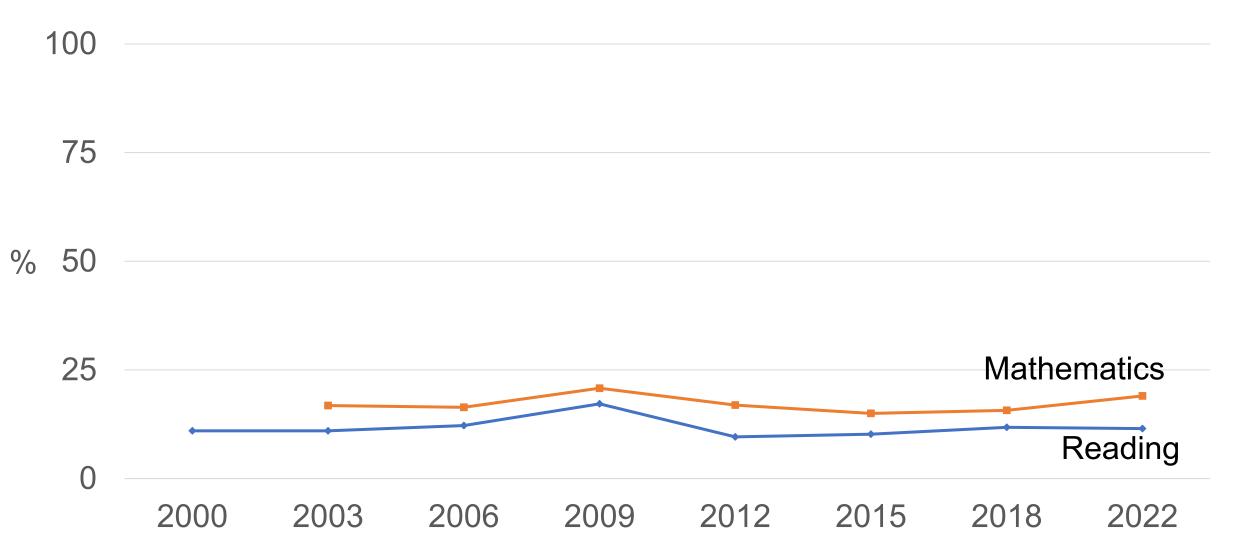
PISA 2022 in Ireland



- Ireland*: over 5,500 students, 170 schools
- Ireland's mean scores in mathematics and reading were significantly higher than the corresponding OECD averages
 - Ireland's mean mathematics score was significantly lower in 2022 than in 2018 (similar decreases internationally)
 - 2018 2022: No significant change in Ireland's mean reading score
- Fewer low-performing students in Ireland than on average across the OECD
- Percentages of high-achievers close to the OECD average
- Gender: Performance of girls in mathematics; boys in reading

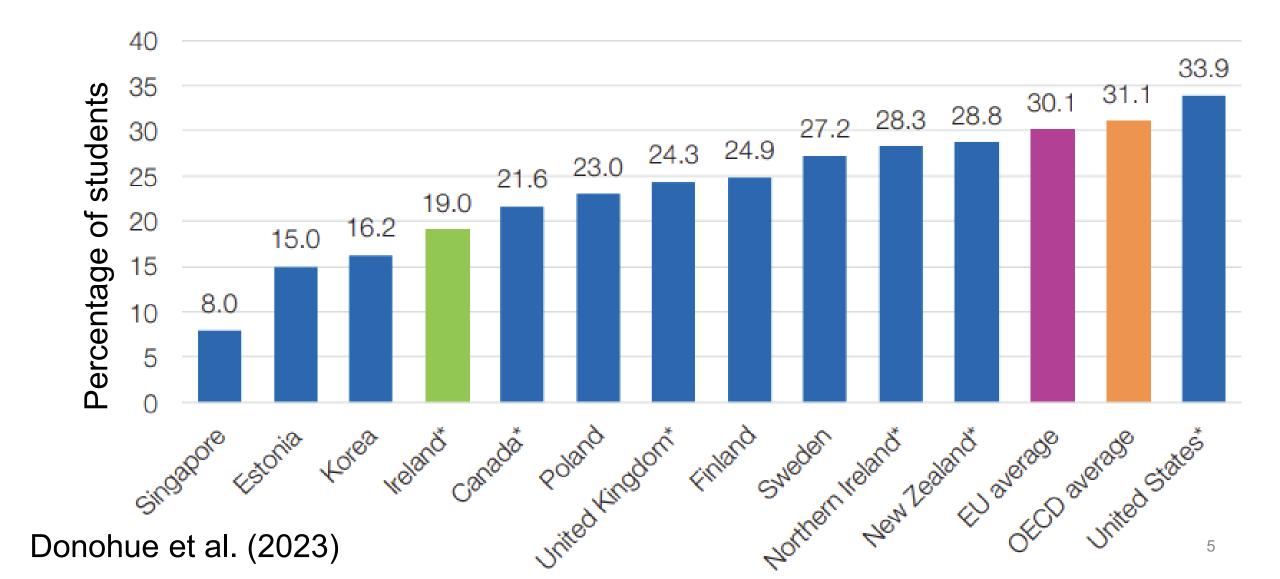
Percentages of low achievers in Ireland: PISA 2000 to 2022





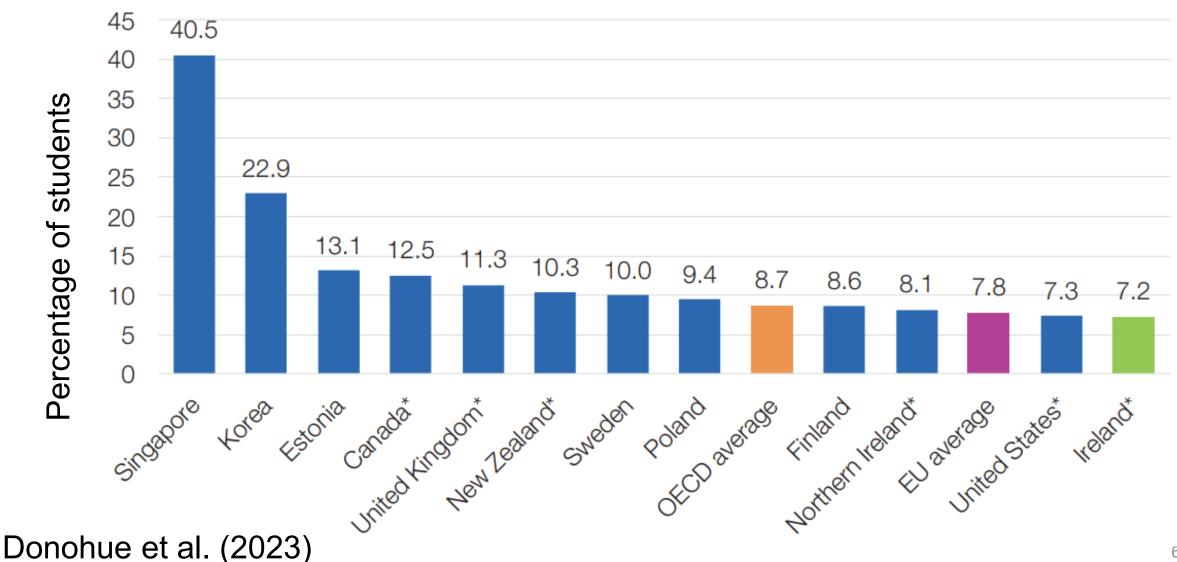
Percentages below Proficiency Level 2 (Maths, PISA 2022)





Percentages at or above Proficiency Level 5 (Mathematics, PISA 2022)





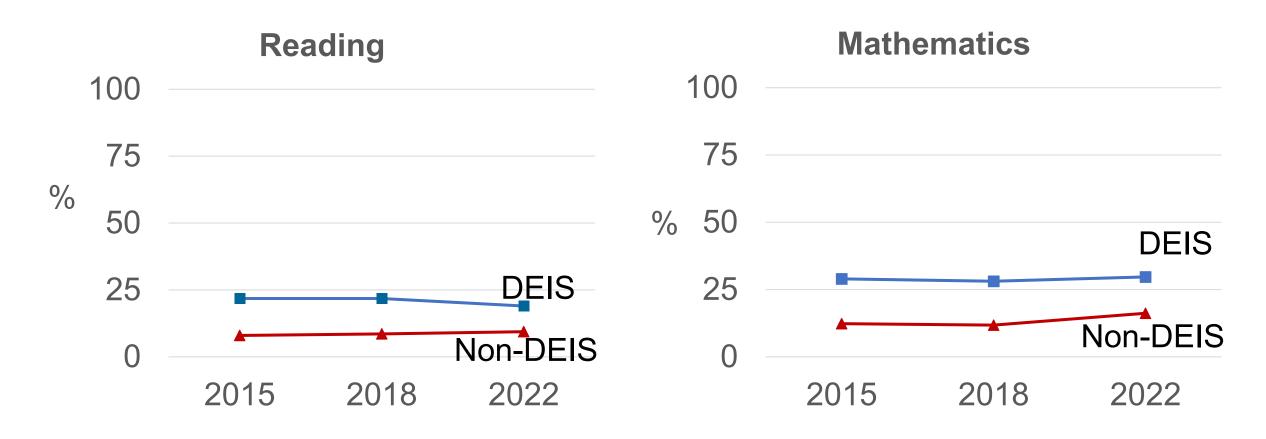
Ireland: Broadly favourable equity outcomes



- Ireland recognised for its focus on educational equity (European Commission, 2019)
- PISA 2018: Average reading achievement in DEIS schools at the OECD average (Gilleece et al., 2020)
- PISA 2012: Above-average maths achievement for students from lower socioeconomic backgrounds in Ireland relative to comparable students internationally (Rowley et al., 2012)
- PISA 2022: Slightly weaker association between student socio-economic background and mathematics performance in IRL than on average across OECD (Donohue et al., 2023)
- Nonetheless, differences persist (DEIS; socio-economic background; gender)

Percentages of low achievers in Ireland: PISA 2015 to 2022 (DEIS status)

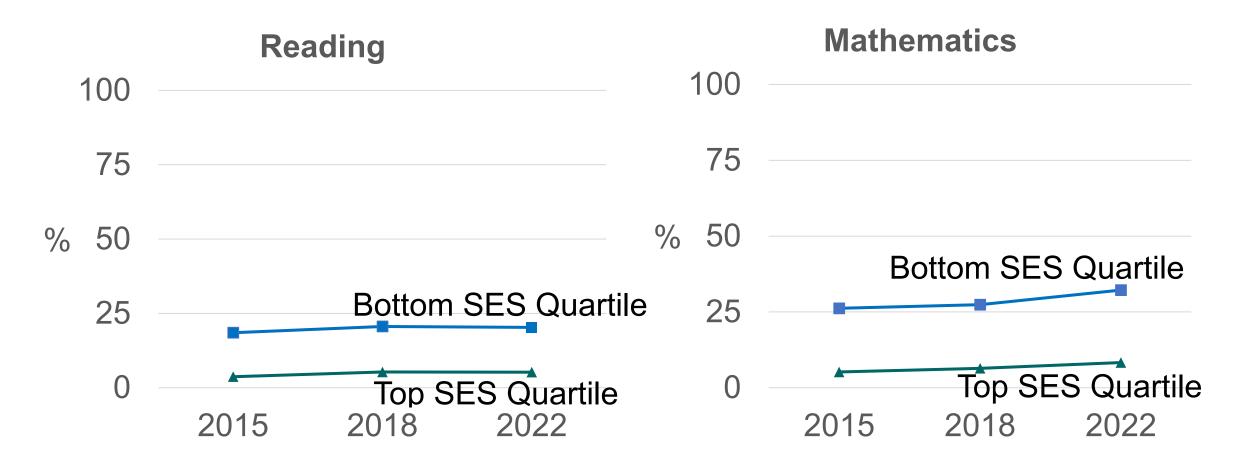




Percentages of low achievers are higher in DEIS schools relative to non-DEIS schools

Percentages of low achievers in Ireland: PISA 2015 to 2022 (Student socio-economic status [SES])

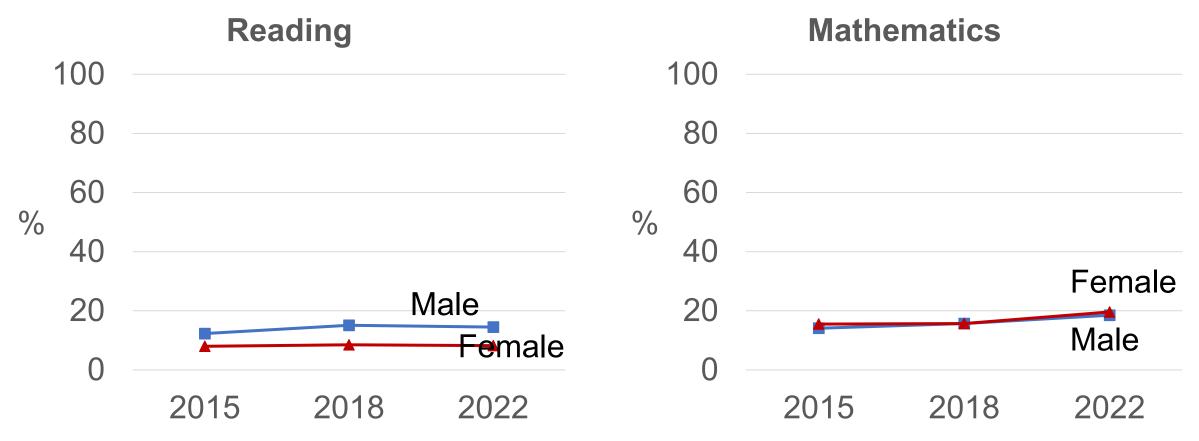




 Percentages of low achievers are higher amongst students from lower socio-economic backgrounds

Percentages of low achievers in Ireland: PISA 2015 to 2022 (Student gender)





- A significantly higher percentage of boys are low achievers in reading
- No significant gender differences in the percentages of low achievers in mathematics (but increase from 2018 to 2022 was slightly larger amongst girls)

Similar findings at primary level (Achievement)



- At Fourth class, pupils in Ireland have very high average scores in:
 - Reading Progress in International Reading Literacy Study (PIRLS;
 Delaney et al., 2023)



 Mathematics – Trends in International Mathematics and Science Study (TIMSS; McHugh et al., 2024)



- Stable over time; e.g.,
 - Very stable mathematics scores across TIMSS 2015, 2019 and 2023
 - Stability in reading and mathematics in the 2021 National Assessments (Kiniry et al., 2023)



Similar findings at primary level (Equity)



- Significantly lower average achievement in urban DEIS schools compared to urban non-DEIS schools (National Assessments of Mathematics and English Reading 2021; Nelis & Gilleece, 2023)
- Pupil individual socio-economic background is associated with average achievement (PIRLS; Delaney et al., 2023)
- Gender differences in low achievement in the National Assessments (Kiniry et al., 2023):
 - More low achieving boys than girls in reading
 - More low achieving girls than boys in mathematics



Conclusions (Reading)



- Ireland is a high achieving country internationally with strong, stable levels of average reading literacy
- Limited scope to reduce further the overall proportion of students performing below Level 2 in PISA reading, given the already very low rate
 - Focus on reducing the proportion of low achieving boys (Shiel et al., 2022)
- A need to focus on students' engagement in leisure reading and enjoyment of reading
 - Included as an indicator of success in *Ireland's literacy, numeracy and digital literacy strategy 2024-2033*

Conclusions (Mathematics)



- Ireland's decline in average mathematics achievement in PISA 2022 merits ongoing monitoring, given previous stability
- "Room for improvement" at the higher end of the achievement distribution (Donohue et al., 2023)
 - Increase the percentage of top performing students in Ireland without compromising the relatively strong performance of lower-achieving students
 - Underperformance of female students at the highest levels of achievement
- A need to support female students across the performance distribution in mathematics (Donohue et al., 2023)

Foras Taighde ar Oideachas Educational Research Centre

Thank you!

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