

# **PISA 2015 E-Appendix**

**Supplementary Tables to the PISA 2015**

**National Report for Ireland:**

***Future Ready?***

***The Performance of 15-year-olds in Ireland on Science,  
Reading Literacy and Mathematics in PISA 2015***

## Chapter 4 Tables

**Table A4.1. Ireland's performance rankings on the overall science scale among EU countries, OECD countries and all PISA countries/economies**

	Mean score	95% confidence interval	Range of ranks								
			EU Countries			OECD countries			All countries/economies		
			Rank	Upper rank	Lower rank	Rank	Upper rank	Lower rank	Rank	Upper rank	Lower rank
Overall Science	502.6	498 - 507	7	6	10	13	11	18	19	17	24

EU figures were derived from OECD (2016b).

**Table A4.2 Percentages of students at each proficiency level on the overall science scale, in Ireland, in selected comparison countries, and in OECD and EU countries on average**

	Below 1b		Level 1b		Level 1a		Level 2		Level 3		Level 4		Level 5		Level 6	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Japan	0.2	(0.08)	1.7	(0.28)	7.7	(0.57)	18.1	(0.80)	28.2	(0.87)	28.8	(0.93)	12.9	(0.80)	2.4	(0.40)
Estonia	0.0	(0.03)	1.2	(0.23)	7.5	(0.60)	20.1	(0.73)	30.7	(0.91)	26.9	(0.94)	11.6	(0.68)	1.9	(0.26)
Finland	0.3	(0.10)	2.3	(0.33)	8.9	(0.56)	19.1	(0.73)	29.2	(0.79)	26.0	(0.83)	11.9	(0.58)	2.4	(0.28)
Canada	0.1	(0.06)	1.8	(0.19)	9.1	(0.44)	20.2	(0.58)	30.3	(0.54)	26.1	(0.69)	10.4	(0.52)	2.0	(0.21)
Korea	0.4	(0.12)	2.9	(0.36)	11.1	(0.70)	21.7	(0.95)	29.2	(0.92)	24.0	(1.00)	9.2	(0.71)	1.4	(0.25)
N Zealand	0.4	(0.14)	4.0	(0.37)	13.0	(0.77)	21.6	(0.78)	26.3	(0.79)	21.8	(0.79)	10.1	(0.63)	2.7	(0.37)
Australia	0.6	(0.09)	4.3	(0.26)	12.8	(0.48)	21.6	(0.53)	27.3	(0.51)	22.3	(0.53)	9.2	(0.42)	2.0	(0.22)
UK	0.4	(0.11)	3.4	(0.30)	13.6	(0.68)	22.6	(0.72)	27.5	(0.70)	21.6	(0.69)	9.1	(0.60)	1.8	(0.23)
Germany	0.4	(0.14)	3.8	(0.41)	12.8	(0.69)	22.7	(0.81)	27.7	(0.80)	22.0	(0.80)	8.8	(0.56)	1.8	(0.20)
Netherlands	0.3	(0.09)	4.0	(0.45)	14.3	(0.73)	21.8	(0.88)	26.1	(0.86)	22.4	(0.80)	9.5	(0.53)	1.6	(0.23)
Ireland	0.3	(0.10)	2.7	(0.38)	12.4	(0.78)	26.4	(0.94)	31.1	(0.87)	20.1	(0.82)	6.3	(0.41)	0.8	(0.16)
US	0.5	(0.14)	4.3	(0.47)	15.5	(0.78)	25.5	(0.78)	26.6	(0.89)	19.1	(0.93)	7.3	(0.55)	1.2	(0.22)
OECD Avg	0.6	(0.03)	4.9	(0.08)	15.7	(0.13)	24.8	(0.14)	27.2	(0.15)	19.0	(0.13)	6.7	(0.08)	1.1	(0.03)
EU Avg	0.7	(0.04)	5.1	(0.12)	15.8	(0.21)	25.1	(0.22)	27.3	(0.23)	18.7	(0.22)	6.4	(0.13)	1.0	(0.05)
EU Total	0.6	(0.05)	4.7	(0.14)	15.3	(0.22)	24.6	(0.23)	27.6	(0.22)	19.6	(0.24)	6.6	(0.16)	1.0	(0.05)
Singapore	0.2	(0.06)	2.0	(0.22)	7.5	(0.46)	15.1	(0.46)	23.4	(0.62)	27.7	(0.65)	18.6	(0.67)	5.6	(0.42)
N Ireland	0.1	(0.08)	2.8	(0.50)	14.9	(1.10)	24.8	(1.30)	30.1	(1.40)	20.6	(1.20)	6.3	(0.80)	0.5	(0.30)

## Chapter 5 Tables

**Table A5.1. Percentage of students at each proficiency level on the reading scale in Ireland, in selected comparison countries and in OECD and EU countries on average**

	Below Level 1b		Level 1b		Level 1a		Level 2		Level 3		Level 4		Level 5		Level 6	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Canada	0.4	(0.10)	2.1	(0.26)	8.2	(0.46)	19.0	(0.55)	29.7	(0.69)	26.6	(0.68)	11.6	(0.58)	2.4	(0.29)
Finland	0.6	(0.15)	2.6	(0.31)	7.8	(0.52)	17.6	(0.77)	29.7	(0.91)	27.9	(0.96)	11.7	(0.62)	2.0	(0.26)
Ireland	0.2	(0.13)	1.7	(0.30)	8.3	(0.67)	21.0	(0.87)	31.8	(1.06)	26.4	(0.78)	9.4	(0.58)	1.3	(0.23)
Estonia	0.2	(0.10)	2.1	(0.31)	8.4	(0.66)	21.6	(0.73)	31.4	(0.86)	25.4	(0.95)	9.7	(0.61)	1.4	(0.24)
Korea	0.7	(0.19)	3.4	(0.48)	9.5	(0.72)	19.3	(0.95)	28.9	(1.03)	25.5	(1.16)	10.8	(0.83)	1.9	(0.31)
N Zealand	1.0	(0.18)	4.8	(0.55)	11.5	(0.71)	20.6	(0.74)	26.5	(0.93)	22.0	(0.91)	11.0	(0.73)	2.6	(0.37)
Germany	0.9	(0.20)	4.1	(0.46)	11.2	(0.69)	21.0	(0.97)	27.6	(0.91)	23.5	(0.85)	9.7	(0.65)	1.9	(0.29)
Sweden	1.5	(0.28)	4.8	(0.46)	12.2	(0.84)	21.7	(0.84)	27.5	(0.77)	22.5	(0.98)	8.5	(0.74)	1.5	(0.28)
France	2.3	(0.43)	6.5	(0.57)	12.7	(0.52)	19.0	(0.80)	24.5	(0.91)	22.5	(0.79)	10.5	(0.68)	2.0	(0.23)
UK	0.8	(0.16)	4.0	(0.37)	13.1	(0.70)	24.3	(0.85)	28.4	(0.73)	20.3	(0.75)	7.7	(0.51)	1.5	(0.22)
US	1.1	(0.24)	4.8	(0.53)	13.0	(0.77)	22.9	(0.90)	28.0	(0.95)	20.5	(0.87)	8.2	(0.64)	1.4	(0.23)
OECD Avg	1.3	(0.04)	5.2	(0.09)	13.6	(0.13)	23.2	(0.15)	27.9	(0.15)	20.5	(0.14)	7.2	(0.09)	1.1	(0.04)
EU Avg	1.8	(0.06)	6.0	(0.11)	14.1	(0.15)	23.5	(0.16)	27.6	(0.18)	19.7	(0.16)	6.5	(0.10)	0.9	(0.04)
EU Total	1.4	(0.09)	5.1	(0.15)	13.2	(0.21)	22.8	(0.28)	27.8	(0.31)	21.0	(0.25)	7.5	(0.21)	1.2	(0.08)
Singapore	0.3	(0.12)	2.5	(0.24)	8.3	(0.42)	16.9	(0.54)	26.2	(0.74)	27.4	(0.73)	14.7	(0.66)	3.6	(0.35)
N Ireland	0.2	(0.11)	2.7	(0.58)	12.5	(1.12)	26.5	(1.65)	31.6	(1.37)	20.7	(1.56)	5.6	(0.96)	0.3	(0.18)

**Table A5.2. Percentages of male and female students achieving each proficiency level on the reading scale, in Ireland and on average across OECD countries**

Level	Ireland				OECD			
	Males		Females		Males		Females	
	%	SE	%	SE	%	SE	%	SE
Level 6	1.4	(0.35)	1.2	(0.29)	0.9	(0.04)	1.4	(0.06)
Level 5	9.4	(0.79)	9.5	(0.89)	5.9	(0.11)	8.5	(0.14)
Level 4	24.7	(1.11)	28.2	(1.16)	17.9	(0.18)	23.1	(0.20)
Level 3	29.8	(1.30)	33.8	(1.37)	26.6	(0.20)	29.3	(0.21)
Level 2	22.5	(1.06)	19.3	(1.18)	24.4	(0.20)	22.1	(0.20)
Level 1a	9.7	(0.85)	6.8	(0.74)	15.9	(0.18)	11.2	(0.15)
Level 1	2.2	(0.51)	1.2	(0.29)	6.8	(0.13)	3.7	(0.10)
Below Level 1b	0.4	(0.21)	0.1	(0.10)	1.8	(0.07)	0.7	(0.05)

**Table A5.3. Percentage of students at each proficiency level on the mathematics scale in Ireland, in selected comparison countries and on average across OECD and EU countries**

	Below Level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Japan	2.9	(0.40)	7.8	(0.57)	17.2	(0.90)	25.8	(0.87)	25.9	(0.91)	15.0	(0.90)	5.3	(0.73)
Korea	5.4	(0.63)	10.0	(0.74)	17.2	(0.78)	23.7	(0.81)	22.7	(0.94)	14.3	(0.87)	6.6	(0.68)
Switzerland	4.9	(0.54)	10.9	(0.78)	18.1	(0.81)	23.6	(0.89)	23.3	(0.83)	14.0	(0.80)	5.3	(0.54)
Estonia	2.2	(0.31)	9.0	(0.67)	21.5	(0.94)	28.9	(0.84)	24.2	(0.72)	11.3	(0.66)	2.9	(0.41)
Canada	3.8	(0.35)	10.5	(0.50)	20.4	(0.60)	27.1	(0.65)	23.0	(0.74)	11.4	(0.56)	3.7	(0.34)
Germany	5.1	(0.57)	12.1	(0.76)	21.8	(0.94)	26.8	(0.74)	21.2	(0.94)	10.1	(0.64)	2.9	(0.36)
Ireland	3.5	(0.46)	11.5	(0.65)	24.1	(0.89)	30.0	(0.89)	21.2	(0.71)	8.3	(0.51)	1.5	(0.22)
N Zealand	7.1	(0.54)	14.6	(0.83)	22.6	(0.99)	25.3	(1.01)	19.0	(0.79)	8.6	(0.66)	2.8	(0.37)
Sweden	7.0	(0.68)	13.8	(0.83)	23.3	(0.96)	26.1	(1.10)	19.4	(0.93)	8.4	(0.65)	2.0	(0.38)
France	8.8	(0.71)	14.7	(0.69)	20.7	(0.88)	23.8	(0.77)	20.6	(0.71)	9.5	(0.61)	1.9	(0.27)
UK	7.7	(0.63)	14.1	(0.73)	22.7	(0.76)	26.0	(0.77)	18.8	(0.83)	8.3	(0.57)	2.3	(0.32)
US	10.6	(0.81)	18.8	(1.01)	26.2	(1.00)	23.8	(0.89)	14.7	(0.80)	5.0	(0.61)	0.9	(0.20)
OECD Avg	8.5	(0.12)	14.9	(0.13)	22.5	(0.15)	24.8	(0.15)	18.6	(0.14)	8.4	(0.10)	2.3	(0.06)
EU Avg	8.8	(0.14)	15.1	(0.15)	23.1	(0.17)	25.0	(0.17)	18.2	(0.15)	7.8	(0.11)	1.9	(0.06)
EU Total	7.7	(0.2)	14.4	(0.22)	22.6	(0.25)	25.4	(0.28)	19.2	(0.30)	8.5	(0.19)	2.2	(0.11)
Singapore	2.0	(0.20)	5.5	(0.40)	12.4	(0.63)	20.0	(0.74)	25.1	(0.88)	21.7	(0.84)	13.1	(0.67)
N Ireland	4.2	(0.81)	14.6	(1.27)	25.3	(1.39)	29.6	(1.42)	19.7	(1.40)	6.0	(1.05)	0.7	(0.33)

**Table A5.4. Percentages of male and female students achieving each proficiency level on the mathematics scale, in Ireland and on average across OECD countries**

Level	Ireland				OECD			
	Males		Females		Males		Females	
	%	SE	%	SE	%	SE	%	SE
Level 6	2.2	(0.40)	0.7	(0.26)	2.9	(0.09)	1.7	(0.06)
Level 5	10.7	(0.88)	5.8	(0.85)	9.5	(0.14)	7.2	(0.13)
Level 4	22.8	(1.05)	19.4	(1.18)	19.0	(0.18)	18.2	(0.18)
Level 3	28.4	(1.21)	31.7	(1.13)	24.0	(0.20)	25.7	(0.20)
Level 2	21.8	(1.07)	26.5	(1.52)	21.6	(0.19)	23.5	(0.20)
Level 1	10.7	(0.89)	12.2	(0.83)	14.6	(0.17)	15.2	(0.18)
Below Level 1	3.4	(0.61)	3.6	(0.51)	8.4	(0.15)	8.5	(0.15)

## Chapter 6 Tables

**Table A6.1. Mean scores on the index of Economic, Social and Cultural Status (ESCS) and component scales, by school SSP (DEIS) status, in Ireland**

	In SSP		Non-SSP		Difference In SSP-Non-SSP	
	Mean	SE	Mean	SE	Mean	SED
ESCS	-0.09	(0.06)	0.24	(0.03)	<b>-0.33</b>	(0.07)
Parental occupation	46.9	(1.25)	54.6	(0.64)	<b>-7.70</b>	(1.40)
Parental education	13.5	(0.11)	14.1	(0.06)	<b>-0.60</b>	(0.13)
Home possessions	0.16	(0.05)	0.39	(0.02)	<b>-0.23</b>	(0.05)
Home possessions – component scales						
Home educational resources	-0.26	(0.04)	-0.11	(0.02)	<b>-0.15</b>	(0.04)
Cultural possessions	-0.13	(0.05)	0.06	(0.02)	<b>-0.19</b>	(0.05)
Family wealth	0.34	(0.04)	0.45	(0.02)	<b>-0.11</b>	(0.04)
Books in the home	124.67	(7.98)	167.22	(4.89)	<b>-42.55</b>	(9.36)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A6.2. Mean scores on ESCS and component scales, by students' immigrant and language background, in Ireland**

	Native		Immigrant Eng/Irish		Immigrant other language		Native-Immig Eng/Irish	Native-Immig Other
	Mean	SE	Mean	SE	Mean	SE	Difference (SED)	
ESCS	0.15	(0.03)	0.31	(0.04)	0.14	(0.08)	<b>-0.16</b>	(0.05) 0.01 (0.09)
Parental occupation	52.8	(0.58)	57.0	(1.03)	50.6	(2.00)	<b>-4.20</b>	(1.18) 2.20 (2.08)
Parental education	13.9	(0.06)	14.5	(0.13)	14.33	(0.14)	<b>-0.60</b>	(0.14) <b>-0.43</b> (0.15)
Home possessions	0.35	(0.02)	0.03	(0.04)	0.26	(0.09)	<b>0.32</b>	(0.04) 0.09 (0.09)
Home possessions – component scales								
Home ed. res.	-0.15	(0.02)	-0.18	(0.05)	0.00	(0.06)	0.03	(0.05) -0.15 (0.06)
Cult. poss.	0.00	(0.02)	0.09	(0.05)	0.02	(0.08)	0.09	(0.05) -0.02 (0.08)
Family wealth	0.45	(0.02)	0.32	(0.05)	0.26	(0.27)	0.13	(0.05) 0.19 (0.27)
Books in home	163.24	(4.22)	163.86	(12.93)	132.36	(16.64)	-0.62	(13.60) 30.98 (17.17)

Significant differences are in bold. Home ed. res. = home educational resources. Cult. poss. = cultural possessions. SE = standard error of the mean; SED = standard error of the difference.

**Table A6.3. Mean scores on ESCS and component scales, by school sector and gender composition, in Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / comp		GS-BS	GS-MS	GS-Voc	GS-CC
	M	SE	M	SE	M	SE	M	SE	M	SE				
ESCS	0.25	(0.04)	0.25	(0.08)	0.30	(0.09)	-0.02	(0.03)	0.09	(0.05)	0.00 (0.09)	-0.05 (0.10)	<b>0.27</b> (0.05)	<b>0.16</b> (0.06)
Parental occupation	54.9	(0.84)	56.4	(1.68)	55.8	(1.83)	48.0	(0.96)	50.8	(1.11)	-1.50 (1.88)	-0.90 (2.01)	<b>6.90</b> (1.28)	<b>4.10</b> (1.39)
Parental education	14.2	(0.10)	14.2	(0.15)	14.2	(0.18)	13.7	(0.07)	13.8	(0.09)	0.00 (0.18)	0.00 (0.21)	<b>0.50</b> (0.12)	<b>0.40</b> (0.13)
Home possessions	0.41	(0.04)	0.33	(0.07)	0.47	(0.07)	0.22	(0.03)	0.32	(0.05)	0.08 (0.08)	-0.06 (0.08)	<b>0.19</b> (0.05)	0.09 (0.06)
Home possessions – component scales														
Home educational resources	-0.12	(0.04)	-0.10	(0.05)	-0.11	(0.04)	-0.20	(0.03)	-0.18	(0.05)	-0.02 (0.00)	-0.01 (0.06)	0.08 (0.05)	0.06 (0.06)
Cultural possessions	0.12	(0.03)	0.00	(0.07)	0.12	(0.05)	-0.09	(0.03)	-0.07	(0.04)	0.12 (0.08)	0.00 (0.06)	<b>0.21</b> (0.04)	<b>0.19</b> (0.05)
Family wealth	0.42	(0.04)	0.38	(0.04)	0.53	(0.06)	0.35	(0.03)	0.47	(0.06)	0.04 (0.06)	-0.11 (0.07)	0.07 (0.05)	-0.05 (0.07)
Books in home	171.95	(7.13)	163.41	(14.15)	180.45	(12.89)	134.73	(6.54)	142.10	(6.79)	8.54 (15.84)	-8.50 (14.73)	<b>37.22</b> (9.68)	<b>29.85</b> (9.85)

Significant differences are in bold. Home ed. res. = home educational resources. Cult. poss. = cultural possessions. SE = standard error of the mean; SED = standard error of the difference.

**Table A6.4. Mean scores on ESCS and component scales, by school fee-paying status, in Ireland**

	Fee-paying		Non-fee-paying		Fee-Non-Fee	
	Mean	SE	Mean	SE	Diff	(SED)
ESCS	0.86	(0.04)	0.09	(0.02)	<b>0.77</b>	(0.04)
Parental occupation	65.45	(1.20)	51.23	(0.53)	<b>14.22</b>	(1.31)
Parental education	15.32	(0.07)	13.86	(0.05)	<b>1.46</b>	(0.09)
Home possessions	0.86	(0.05)	0.29	(0.02)	<b>0.57</b>	(0.05)
Home possessions – component scales						
Home educational resources	0.03	(0.04)	-0.16	(0.02)	<b>0.09</b>	(0.04)
Cultural possessions	0.42	(0.07)	-0.03	(0.02)	<b>0.45</b>	(0.07)
Family wealth	0.81	(0.06)	0.39	(0.02)	<b>0.42</b>	(0.46)
Books in the home	248.43	(17.79)	147.95	(3.76)	<b>100.48</b>	(18.18)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A6.5. Correlation of ESCS and component scales with performance in science, reading and mathematics, in Ireland**

	Science			Reading			Mathematics		
	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>
ESCS	<b>.356</b>	25.4	< .001	<b>.353</b>	25.2	< .001	<b>.375</b>	26.8	< .001
Parental occupation	<b>.311</b>	20.7	< .001	<b>.307</b>	20.5	< .001	<b>.321</b>	21.4	< .001
Parental education	<b>.236</b>	14.8	< .001	<b>.240</b>	16.0	< .001	<b>.257</b>	15.1	< .001
Home possessions	<b>.266</b>	19.0	< .001	<b>.260</b>	16.3	< .001	<b>.282</b>	17.6	< .001
Home possessions – component scales									
Home educational resources	<b>.183</b>	13.1	< .001	<b>.184</b>	11.5	< .001	<b>.210</b>	14.0	< .001
Cultural possessions	<b>.251</b>	19.3	< .001	<b>.294</b>	17.8	< .001	<b>.226</b>	15.1	< .001
Family wealth	<b>.063</b>	3.7	< .001	<b>.060</b>	3.2	= .001	<b>.100</b>	5.3	< .001
Books in the home	<b>.333</b>	22.2	< .001	<b>.330</b>	20.6	< .001	<b>.320</b>	20.0	< .001

Significant correlations are in bold. Df=80 (number of variance strata associated with balanced repeated replication (BRR) method of variance estimation).

**Table A6.6. Mean scores in science, reading, and mathematics by students' immigrant and language background, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Native (ref)	85.6	505.1	(2.50)	88.03	524.7	(2.53)	1.49	506.2	(2.17)	79.15
Immigrant with Eng/Irish	7.3	507.9	(5.34)	92.88	522.8	(5.73)	3.32	503.4	(4.71)	82.80
Immigrant with other language	7.1	492.9	(5.22)	88.61	<b>499.7</b>	(5.21)	3.51	493.6	(5.69)	78.94

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.7. Mean scores in science, reading, and mathematics by student grade (year) level, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Second Year	1.89	<b>427.8</b>	(9.83)	83.09	<b>433.8</b>	(8.83)	82.31	<b>429.5</b>	(9.24)	75.13
Third Year (ref)	60.5	500.7	(2.48)	88.19	517.4	(2.61)	85.43	500.0	(2.16)	78.98
Transition Year	26.7	<b>520.0</b>	(3.80)	86.60	<b>542.4</b>	(3.68)	81.44	<b>521.4</b>	(3.43)	76.18
Fifth Year	10.91	<b>485.9</b>	(5.13)	87.73	505.6	(5.49)	86.19	495.2	(5.16)	81.95

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.8. Mean scores on ESCS by student grade (year) level, in Ireland**

	ESCS			
	%	Mean	SE	SD
Second Year	1.9	<b>-0.29</b>	(0.07)	0.86
Third Year (ref)	60.5	0.16	(0.02)	0.83
Transition Year	26.7	<b>0.28</b>	(0.04)	0.83
Fifth Year	10.9	<b>-0.02</b>	(0.05)	0.85

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.9. Mean scores in science, reading and mathematics by students' pre-primary education attendance (parents' reports), in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Attended	83.8	<b>513.0</b>	(2.51)	87.02	<b>532.6</b>	(2.59)	83.78	<b>512.6</b>	(2.19)	78.24
Did not attend (ref)	16.2	483.1	(4.66)	88.63	499.9	(5.06)	85.40	485.5	(4.47)	79.54

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.10. Mean scores in science, reading and mathematics by duration of preschool attendance (students' reports), in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Less than one year (ref)	2.5	450.7	(8.25)	90.25	462.6	(9.12)	91.88	455.2	(7.39)	78.39
Between one and two years	36.6	<b>509.2</b>	(2.81)	86.14	<b>530.5</b>	(2.59)	82.23	<b>510.8</b>	(2.58)	77.39
Between two and three years	31.6	<b>507.0</b>	(2.89)	87.13	<b>525.4</b>	(3.15)	84.5	<b>507.5</b>	(2.67)	78.27
Three years or more	12.3	<b>496.3</b>	(5.19)	92.8	<b>513.0</b>	(4.55)	90.01	<b>494.6</b>	(4.76)	83.51
I did not attend	6.3	<b>488.8</b>	(4.73)	82.30	<b>510.2</b>	(5.12)	81.22	<b>494.7</b>	(4.74)	74.35
I don't remember	10.8	<b>503.7</b>	(4.24)	93.80	<b>514.1</b>	(4.59)	89.44	<b>502.1</b>	(4.50)	84.30

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.11. Mean scores in science, reading and mathematics by early school-leaving risk, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Not at risk (ref)	87.5	509.3	(2.42)	87.57	527.6	(2.49)	84.51	509.7	(2.10)	78.6
At risk	12.5	<b>460.1</b>	(4.06)	84.57	<b>479.1</b>	(3.88)	83.70	<b>465.0</b>	(3.36)	75.7

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.12. Percentages of students skipping school in the two weeks prior to testing, by school sector and gender composition, in Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / Comp	
	%	SE	%	SE	%	SE	%	SE	%	SE
	None (ref)	75.6	(1.68)	77.0	(1.75)	75.7	(1.68)	75.2	(1.61)	75.0
1 or 2 days	20.9	(1.32)	19.0	(1.28)	20.6	(1.35)	20.6	(1.35)	20.9	(1.99)
3 or more days	3.6	(0.61)	4.0	(0.89)	3.8	(0.66)	3.8	(0.66)	4.1	(1.09)

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.13. Percentages of students skipping school in the two weeks prior to testing, by school SPP (DEIS) status, in Ireland**

	In SSP		Non-SSP	
	%	SE	%	SE
None	72.0	(1.72)	76.7	(0.82)
1 or 2 days	23.2	(1.46)	19.6	(0.70)
3 or more days	4.8	(0.76)	3.7	(0.35)

**Table A6.14. Mean scores in science, reading and mathematics by frequency of skipping school in the two weeks prior to testing, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
None (ref)	75.6	508.2	(2.37)	88.4	525.7	(2.42)	85.27	509.2	(2.00)	78.74
1 or 2 days	20.5	<b>489.6</b>	(3.87)	86.42	<b>511.0</b>	(4.09)	85.00	<b>491.1</b>	(3.54)	78.18
3 or more days	3.9	<b>471.8</b>	(7.25)	93.84	<b>489.8</b>	(7.53)	93.45	<b>468.6</b>	(7.18)	87.85

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.15. Mean scores in science, reading and mathematics by frequency of arriving late for school in the two weeks prior to testing, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
None (ref)	68.9	509.7	(2.29)	87.10	528.7	(2.39)	83.43	510.4	(1.88)	77.22
1 or 2 times	24.0	<b>491.8</b>	(3.88)	89.15	<b>508.7</b>	(3.83)	91.22	<b>492.9</b>	(3.76)	81.45
3 or more times	7.1	<b>478.6</b>	(5.64)	91.96	<b>495.2</b>	(6.49)	91.22	<b>481.1</b>	(5.22)	85.86

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.16. Percentages of students arriving late for school in the two weeks prior to testing, by school sector and gender composition, in Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / Comp	
	%	SE	%	SE	%	SE	%	SE	%	SE
	None	74.4	(1.87)	67.3	(2.68)	67.8	(2.16)	63.9	(1.71)	72.4
1 or 2 days	20.9	(1.57)	26.0	(2.10)	23.1	(1.72)	27.3	(1.41)	22.0	(1.38)
3 or more days	4.7	(0.65)	6.67	(1.09)	9.2	(1.23)	8.8	(0.81)	5.65	(0.53)

**Table A6.17. Percentages of students arriving late for school in the two weeks prior to testing, by school SPP (DEIS) status, in Ireland**

	In SSP		Non-SSP	
	%	SE	%	SE
None	70.1	(0.97)	64.9	(2.40)
1 or 2 days	23.2	(0.82)	26.8	(1.68)
3 or more days	6.7	(0.43)	8.3	(0.99)

**Table A6.18. Correlations of ICT familiarity and use indices with achievement in science, reading and mathematics, in Ireland**

	Science			Reading			Maths		
	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>
Students' ICT interest	.029	1.61	NS	<b>.056</b>	3.29	<.001	.014	0.82	NS
Students' perceived ICT competence	<b>.124</b>	7.75	<.001	<b>.099</b>	6.19	<.001	<b>.096</b>	5.65	<.001
Students' perceived autonomy with regard to ICT	<b>.176</b>	10.35	<.001	<b>.136</b>	8.50	<.001	<b>.159</b>	9.35	<.001
Use of ICT at school in general	<b>-.108</b>	-6.00	<.001	<b>-.097</b>	-5.39	<.001	<b>-.100</b>	-5.88	<.001
ICT use outside of school for schoolwork	<b>-.054</b>	-3.38	<.001	<b>-.059</b>	-3.69	<.001	<b>-.055</b>	-3.06	<.01
ICT use outside of school, leisure	<b>-.070</b>	-4.12	<.001	<b>-.091</b>	-5.35	<.001	<b>-.067</b>	-3.53	<.001
ICT use as a topic in social interaction	<b>-0.36</b>	-2.00	<.05	<b>-.092</b>	-5.41	<.001	-.024	-1.26	NS

Significant correlations are in bold. Df=80 (number of variance strata associated with balanced repeated replication (BRR) method of variance estimation).

**Table A6.19. Mean scores in science for male and female students who had taken a computer-based test at least once prior to PISA 2015 and who had never taken a computer-based test, in Ireland**

	Science							
	Males				Females			
	%	Mean	SE	SD	%	Mean	SE	SD
Yes, at least once	46.0	515.6	(4.20)	92.01	39.5	503.3	(3.18)	85.01
No, never (ref)	54.0	505.4	(3.78)	93.86	60.5	494.6	(3.23)	81.12

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.20. Mean scores in reading for male and female students who had taken a computer-based test at least once prior to PISA 2015 and who had never taken a computer-based test, in Ireland**

	Reading							
	Males				Females			
	%	Mean	SE	SD	%	Mean	SE	SD
Yes, at least once	46.0	522.3	(4.36)	89.17	39.5	530.7	(3.20)	82.57
No, never (ref)	54.0	513.2	(3.75)	89.37	60.5	525.5	(3.19)	80.59

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.21. Mean scores in mathematics for male and female students who had taken a computer-based test at least once prior to PISA 2015 and who had never taken a computer-based test, in Ireland**

	Mathematics							
	Males				Females			
	%	Mean	SE	SD	%	Mean	SE	SD
Yes, at least once	46.0	518.2	(4.10)	81.92	39.5	500.2	(2.86)	76.13
No, never (ref)	54.0	509.7	(3.39)	82.95	60.5	493.4	(3.13)	73.82

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.22. Mean scores in science, reading and mathematics for students who had taken a computer-based test at least once before and students who had never taken a computer-based test before, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Yes, at least once	42.8	<b>510.0</b>	(3.09)	89.1	<b>526.2</b>	(3.11)	86.3	<b>510.0</b>	(2.85)	79.8
No, never (ref)	57.2	499.8	(2.64)	87.6	516.6	(2.76)	85.1	501.2	(2.28)	78.7

Significantly different mean scores are in bold (in comparison to the reference group) ( $p < .05$ ).

**Table A6.23. Mean scores on ESCS for students who had taken a computer-based test at least once prior to PISA 2015 and students who had never taken a computer-based test, in Ireland**

	ESCS			
	%	Mean	SE	SD
Yes, at least once	42.8	<b>0.24</b>	(0.03)	0.83
No, never (ref)	57.2	0.11	(0.03)	0.85

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.24. School average ESCS, in Ireland and on average across OECD countries**

	School ESCS		
	Mean	SE	SD
Ireland	<b>0.16</b>	(0.02)	0.38
OECD (ref)	-0.04	(0.00)	0.47

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.25. School average ESCS by school SSP (DEIS) status, in Ireland**

	School ESCS			
	%	Mean	SE	SD
Non-SSP (ref)	76.2	0.23	(0.03)	0.36
In SSP	23.8	<b>-0.09</b>	(0.06)	0.31

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.26. Correlations of school average ESCS with science, reading and mathematics achievement, in Ireland**

	Science			Reading			Mathematics		
	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>
	School ESCS	<b>.290</b>	12.5	< .001	<b>.300</b>	15.0	< .001	<b>.31</b>	15.5

Significant correlations are in bold. Df=80 (number of variance strata associated with balanced repeated replication (BRR) method of variance estimation).

**Table A6.27. Mean scores in science, reading and mathematics by school SSP (DEIS) status, in Ireland**

	%	Science			Reading			Mathematics		
		Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Non-SSP (ref)	76.5	509.2	(2.62)	87.41	527.3	(2.51)	84.22	510.1	(2.28)	78.32
In SSP	23.5	<b>481.2</b>	(6.77)	90.32	<b>499.7</b>	(7.02)	89.05	<b>483.1</b>	(6.05)	80.94

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.28. Mean scores in science, reading and mathematics by school sector and gender composition, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Girls' secondary	21.1	<b>511.2</b>	(3.58)	80.11	<b>539.2</b>	(3.66)	78.69	<b>505.6</b>	(3.62)	71.98
Boys' secondary	16.7	<b>521.7</b>	(5.52)	91.24	<b>528.0</b>	(5.73)	88.66	<b>524.8</b>	(5.52)	81.26
Community/comprehensive	17.6	494.7	(3.89)	86.53	511.6	(3.85)	83.56	498.6	(3.91)	77.98
Mixed secondary	18.6	<b>510.3</b>	(6.49)	89.15	<b>527.5</b>	(5.78)	84.57	<b>514.0</b>	(5.19)	79.66
Vocational (ref)	26.0	483.1	(5.69)	91.19	502.8	(5.89)	90.24	484.9	(5.15)	81.39

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.29. Student ESCS by school sector and gender composition, in Ireland**

	ESCS			
	%	Mean	SE	SD
Girls' secondary	21.2	<b>0.25</b>	(0.04)	0.83
Boys' secondary	16.7	<b>0.25</b>	(0.08)	0.86
Community/comprehensive	17.4	0.09	(0.05)	0.85
Mixed secondary	18.6	<b>0.30</b>	(0.09)	0.84
Vocational (ref)	26.1	-0.02	(0.03)	0.81

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.30. Student ESCS by school fee-paying status, in Ireland**

	ESCS			
	%	Mean	SE	SD
Non-fee-paying (ref)	90.9	0.09	(0.02)	0.83
Fee-paying	9.1	<b>0.86</b>	(0.04)	0.63

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.31. Mean scores in science, reading, and mathematics by school fee-paying status, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Non-fee-paying (ref)	90.9	497.9	(2.58)	88.0	517.4	(2.65)	85.96	499.4	(2.30)	79.1
Fee-paying	9.1	<b>549.8</b>	(5.54)	83.5	<b>554.7</b>	(6.21)	80.95	<b>546.8</b>	(4.58)	73.3

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.32. Mean scores in science, reading, and mathematics by school location, in Ireland**

	Science				Reading			Mathematics		
	%	Mean	SE	SD	Mean	SE	SD	Mean	SE	SD
Town (ref)	50.9	499.9	(3.59)	88.61	518.0	(3.83)	86.53	499.5	(3.32)	79.86
City	29.2	514.9	(5.66)	90.48	533.3	(5.50)	86.86	<b>513.6</b>	(5.04)	81.55
Rural	19.9	495.2	(5.42)	86.29	513.0	(4.71)	83.43	502.4	(4.71)	76.53

Significantly different mean scores are in bold (in comparison to reference group).

**Table A6.33. Student ESCS by school location, in Ireland**

	ESCS			
	%	Mean	SE	SD
Town (ref)	20.0	0.13	(0.03)	0.84
City	29.2	<b>0.30</b>	(0.07)	0.85
Rural	50.8	0.05	(0.06)	0.82

Significantly different mean scores are in bold (in comparison to the reference group).

**Table A6.34. Percentages of students whose principals report that various student factors affect school climate to differing extents, in Ireland**

	Not at all		Very little		To some extent		A lot	
	%	SE	%	SE	%	SE	%	SE
Student truancy	7.5	(2.27)	40.9	(4.05)	40.6	(3.82)	11.0	(2.10)
Students skipping classes	20.4	(3.35)	64.7	(4.03)	14.2	(3.02)	0.7	(0.61)
Students lacking respect for teachers	21.3	(3.33)	66.2	(3.84)	12.5	(2.41)	0.0	(0.00)
Student use of alcohol or illegal drugs	41.5	(3.86)	43.0	(3.90)	15.4	(3.16)	0.0	(0.00)
Students intimidating or bullying other students	13.1	(3.02)	74.7	(3.87)	11.5	(2.68)	0.7	(0.70)

**Table A6.35. Percentages of students whose principals report that various teacher factors affect school climate to differing extents, in Ireland**

	Not at all		Very little		To some extent		A lot	
	%	SE	%	SE	%	SE	%	SE
Teachers not meeting individual students' needs	16.1	(2.89)	65.4	(3.87)	17.7	(3.23)	0.8	(0.84)
Teacher absenteeism	18.6	(3.32)	70.1	(3.67)	10.5	(2.24)	0.8	(0.77)
Staff resisting change	18.5	(3.26)	53.8	(4.35)	24.7	(3.67)	3.0	(1.52)
Teachers being too strict with students	28.2	(3.54)	61.9	(3.86)	10.0	(2.49)	0.0	(0.00)
Teachers not being well prepared for classes	18.9	(3.16)	73.3	(3.38)	7.1	(2.22)	0.7	(0.70)

**Table A6.36. Correlations of school climate indices with science, reading and mathematics achievement, in Ireland**

	Science			Reading			Mathematics		
	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>
Student factors affecting climate	<b>-.155</b>	-4.43	< .001	<b>-.137</b>	-4.03	< .001	<b>-.155</b>	-4.43	< .001
Teacher factors affecting climate	-.160	-0.38	NS	-.160	-0.40	NS	-.060	-0.14	NS

Significant correlations are highlighted in bold. Df=80 (number of variance strata associated with balanced repeated replication (BRR) method of variance estimation).

**Table A6.37. Correlations of student ESCS with school climate indices, in Ireland**

	ESCS		
	<i>r</i>	<i>t</i>	<i>p</i>
Student factors affecting climate	<b>-.195</b>	-5.03	< .001
Teacher factors affecting climate	-.050	-1.25	NS

Significant correlations are highlighted in bold. Df=80 (number of variance strata associated with balanced repeated replication (BRR) method of variance estimation).

**Table A6.38. Percentages of students reporting that disciplinary climate issues in science classes occur in every class, most classes, some classes, and never or hardly ever, in Ireland**

	Every class		Most classes		Some classes		Never or hardly ever	
	%	SE	%	SE	%	SE	%	SE
Students don't listen to what the teacher says	13.2	(0.56)	19.8	(0.62)	49.8	(0.71)	17.2	(0.67)
There is noise and disorder	12.6	(0.67)	18.6	(0.61)	46.6	(0.79)	22.2	(0.85)
The teacher has to wait a long time for students to quiet down	9.2	(0.62)	15.1	(0.55)	43.1	(0.92)	32.5	(0.88)
Students cannot work well	6.3	(0.48)	10.4	(0.50)	43.2	(0.85)	40.1	(1.04)
Students don't start working for a long time after the class begins	7.4	(0.51)	12.7	(0.54)	40.2	(0.78)	39.7	(1.04)

Data were extracted from OECD (2016c), Table II.3.10.

**Table A6.39. Percentages of students reporting that teacher support actions in science classes occur in every class, most classes, some classes, and never or hardly ever, in Ireland**

	Every class		Most classes		Some classes		Never or hardly ever	
	%	SE	%	SE	%	SE	%	SE
The teacher shows an interest in every student's learning	41.1	(1.00)	34.8	(0.75)	18.5	(0.58)	5.6	(0.46)
The teacher gives extra help when students need it	41.7	(0.91)	32.3	(0.66)	19.3	(0.69)	6.7	(0.46)
The teacher helps students with their learning	45.9	(1.02)	31.4	(0.65)	16.9	(0.70)	5.8	(0.44)
The teacher continues teaching until the students understand	43.7	(1.04)	29.2	(0.65)	18.7	(0.60)	8.4	(0.57)
The teacher gives students an opportunity to express opinions	33.0	(0.97)	29.4	(0.81)	24.2	(0.73)	13.3	(0.71)

Data were extracted from OECD (2016c), Table II.3.22.

**Table A6.40. Percentages of students reporting that inquiry-based science teaching and learning practices in science classes occur in every class, most classes, some classes, and never or hardly ever, in Ireland**

	In all classes		In most classes		In some classes		Never or hardly ever	
	%	SE	%	SE	%	SE	%	SE
Students are given opportunities to explain their ideas	28.3	(0.83)	35.1	(0.70)	25.8	(0.65)	10.9	(0.62)
Students spend time in the laboratory doing practical experiments	4.2	(0.33)	22.6	(0.86)	63.0	(0.98)	10.2	(0.70)
Students are required to argue about science questions	7.5	(0.39)	18.1	(0.61)	38.6	(0.76)	35.8	(0.93)
Students are asked to draw conclusions from an experiment they have conducted	14.8	(0.61)	40.0	(0.79)	38.7	(0.85)	6.4	(0.42)
The teacher explains how a science idea can be applied to a number of different phenomena (e.g. the movement of objects, substances with similar properties)	25.2	(0.75)	37.9	(0.84)	28.0	(0.67)	8.9	(0.56)
Students are allowed to design their own experiments	2.2	(0.22)	4.0	(0.31)	24.1	(0.75)	69.7	(0.92)
There is a class debate about investigations	3.6	(0.29)	9.6	(0.46)	31.0	(0.80)	55.8	(0.98)
The teacher clearly explains the relevance of science concepts to our lives	22.6	(0.79)	30.9	(0.65)	32.6	(0.70)	13.8	(0.58)
Students are asked to do an investigation to test ideas	7.3	(0.45)	21.8	(0.70)	44.1	(0.85)	26.7	(0.83)

Data were extracted from OECD (2016c), Table II.2.26.

**Table A6.41. Percentages of students reporting that adaptive instruction practices in sciences classes occur never or hardly ever, in some classes, in many classes, and in every class or almost every class, in Ireland**

	Never or almost never		Some classes		Many classes		Every class or almost every class	
	%	SE	%	SE	%	SE	%	SE
The teacher adapts the class to my class's needs and knowledge	18.1	(0.65)	39.3	(0.70)	29.2	(0.64)	13.4	(0.54)
The teacher provides individual help when a student has difficulties understanding a topic or task	14.3	(0.62)	37.9	(0.72)	31.1	(0.75)	16.7	(0.53)
The teacher changes the structure of the class on a topic that most students find difficult to understand	23.2	(0.69)	40.7	(0.87)	25.7	(0.73)	10.4	(0.51)

Data were extracted from OECD (2016c), Table II.2.22.

**Table A6.42. Percentages of students reporting that teacher-directed science instruction practices in science classes occur never or hardly ever, in some classes, in many classes, and in every class or almost every class, in Ireland**

	Never or almost never		Some classes		Many classes		Every class or almost every class	
	%	SE	%	SE	%	SE	%	SE
The teacher explains scientific ideas	8.4	(0.46)	36.2	(0.75)	33.1	(0.78)	22.3	(0.74)
A whole class discussion takes place with the teacher	25.1	(0.92)	39.8	(0.87)	23.6	(0.69)	11.5	(0.54)
The teacher discusses our questions	10.6	(0.66)	32.9	(0.72)	37.4	(0.78)	19.2	(0.70)
The teacher demonstrates an idea	10.7	(0.55)	35.7	(0.89)	37.4	(0.84)	16.2	(0.66)

Data were extracted from OECD (2016c), Table II.2.16.

**Table A6.43. Percentages of students reporting that teacher feedback practices in science classes occur never or hardly ever, in some classes, in many classes, and in every class or almost every class, in Ireland**

	Never or almost never		Some classes		Many classes		Every class or almost every class	
	%	SE	%	SE	%	SE	%	SE
The teacher tells me how I am performing in this course	23.7	(0.86)	51.6	(0.80)	20.6	(0.71)	4.1	(0.30)
The teacher gives me feedback on my strengths in this class	31.9	(0.98)	42.2	(0.75)	21.8	(0.74)	4.1	(0.34)
The teacher tells me in which areas I can still improve	24.9	(0.82)	44.5	(0.83)	25.1	(0.78)	5.5	(0.36)
The teacher tells me how I can improve my performance	26.4	(0.88)	43.5	(0.71)	24.6	(0.75)	5.5	(0.38)
The teacher advises me on how to reach my learning goals	30.9	(0.98)	40.2	(0.80)	22.3	(0.670)	6.6	(0.45)

Data were extracted from OECD (2016c), Table II.2.19.

**Table A6.44. Percentages of students whose principals reported 'yes' and 'no' to the following statements about school policies for parental involvement, in Ireland**

	Yes		No	
	%	SE	%	SE
Our school provides a welcoming and supportive atmosphere for parents to get involved	100	(0.00)	0.0	(0.00)
Our school designs effective forms of school-to-home and home-to-school communications about school programmes and children's progress	98.8	(0.87)	1.2	(0.87)
Our school includes parents in school decisions	98.7	(0.96)	1.3	(0.96)
Our school provides information and ideas for families about how to help students at home with homework and other school-related activities, decisions, and planning	93.8	(2.08)	6.2	(2.08)

Data were extracted from OECD (2016c), Table II.3.25

**Table A6.45. Percentages of students whose parents agreed/disagreed with various statements about school policies for parental involvement, in Ireland**

	Strongly agree		Agree		Disagree		Strongly disagree	
	%	SE	%	SE	%	SE	%	SE
My child's school provides an inviting atmosphere for parents to get involved	29.2	(0.84)	59.9	(0.69)	12.3	(0.62)	1.5	(0.17)
My child's school provides effective communication between the school and families	33.5	(0.85)	56.0	(0.69)	8.8	(0.63)	1.7	(0.22)
My child's school involves parents in the school's decision-making process	12.7	(0.54)	56.6	(0.69)	27.9	(0.68)	2.9	(0.24)
My child's school offers parent education (e.g. effective parenting) or family support programmes (e.g. preventing bullying)	17.2	(0.80)	55.3	(0.86)	23.4	(0.95)	4.1	(0.29)
My child's school informs families about how to help students with homework/other school-related activities	19.4	(0.81)	60.3	(0.73)	18.2	(0.76)	2.0	(0.18)
My child's school uses community services to help support school programmes and student development	12.6	(0.53)	57.8	(0.83)	26.6	(0.80)	3.0	(0.25)

**Table A6.46. Correlations of School Policies for Parental Involvement (parents' perspective) with science, reading and mathematics achievement, in Ireland**

	Science			Reading			Mathematics		
	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>t</i>	<i>p</i>
School policies for parental involvement	<b>-.10</b>	-5.00	< .001	<b>-.12</b>	-6.00	< .001	<b>-.09</b>	-4.50	< .001

Significant correlations are highlighted in bold. Df=80 (number of variance strata associated with balanced repeated replication (BRR) method of variance estimation).

**Table A6.47. Percentages of students whose parents responded 'yes' to statements about parental involvement in school-related activities, in Ireland**

	Yes	
	%	SE
Discussed my child's behaviour with a teacher on my own initiative	30.8	(0.64)
Discussed my child's behaviour on the initiative of one of his/her teachers	19.2	(0.94)
Discussed my child's progress with a teacher on my own initiative	35.3	(0.75)
Discussed my child's progress with a teacher on my own initiative	28.7	(0.85)
Participated in local school government, e.g. parent council or school management committee	9.4	(0.47)
Volunteered in physical or extra-curricular activities	7.2	(0.44)
Volunteered to support school activities	6.6	(0.40)
Attended a scheduled meeting or conferences for parents	83.0	(0.58)
Talked about how to support learning at home and homework with my child's teachers	52.6	(0.91)
Exchanged ideas on parenting, family support, or the child's development with my child's teachers	25.4	(0.81)

Data were extracted from OECD (2016c), Table II.3.31.

## Chapter 7 Tables

**Table A7.1. Percentages of students in Ireland who intend to have science-related or other careers at age 30, by school SSP (DEIS) status**

	In SSP		Non-SSP	
	%	SE	%	SE
Expects science career	25.2	(1.30)	27.9	(0.82)
Expects other occupation	60.5	(1.49)	59.4	(0.86)
Vague, do not know, undecided etc*	14.4	(0.93)	12.7	(0.70)

\* This includes students with vague career expectations, students who do not know, or are undecided about a career, and students whose answer is missing. It excludes those who skipped or did not reach the question (OECD, 2016c).

**Table A7.2. Percentages of students in Ireland who intend to have science-related or other careers at age 30, by students' immigrant and language background**

	Native		Immigrant Eng/Irish		Immigrant other language	
	%	SE	%	SE	%	SE
Expects science career	26.1	(0.75)	38.4	(2.77)	50.0	(2.50)
Expects other occupation	61.8	(0.85)	48.4	(2.51)	37.8	(2.61)
Vague, do not know, undecided etc*	12.1	(0.54)	13.1	(1.92)	12.2	(1.46)

\* This includes students with vague career expectations, students who do not know, or are undecided about a career, and students whose answer is missing. It excludes those who skipped or did not reach the question (OECD, 2016c).

**Table A7.3. Percentages of students in Ireland who intend to have science-related or other careers at age 30, by school sector and gender composition**

	Girls' Secondary		Boys' Secondary		Mixed secondary		Vocational		Community / Comp	
	%	SE	%	SE	%	SE	%	SE	%	SE
Expects science career	27.5	(1.41)	25.2	(1.52)	29.3	(1.68)	26.7	(1.64)	27.7	(1.35)
Expects other occupation	59.2	(1.76)	59.3	(1.87)	58.3	(1.30)	61.2	(1.51)	59.7	(2.64)
Vague, do not know, undecided etc*	13.4	(1.10)	15.6	(1.56)	12.4	1.08	12.0	(0.87)	12.6	2.33

\* This includes students with vague career expectations, students who do not know, or are undecided about a career, and students whose answer is missing. It excludes those who skipped or did not reach the question (OECD, 2016c).

**Table A7.4. Percentages of students in Ireland expecting a science career at age 30 by science career category and gender**

	Ireland					
	All		Males		Females	
	%	SE	%	SE	%	SE
Science and engineering professionals	8.8	(0.41)	12.5	(0.73)	4.8	(0.42)
Health professionals	13.8	(0.56)	7.9	(0.54)	20.0	(0.87)
ICT professionals	3.4	(0.27)	5.9	(0.45)	0.7	(0.23)
Science-related technicians and associate professionals	1.3	(0.15)	1.6	(0.26)	1.0	(0.22)

**Table A7.5. Percentages of students expecting a science career at age 30 by science career category and gender, across OECD countries on average**

	OECD					
	All		Males		Females	
	%	SE	%	SE	%	SE
Science and engineering professionals	8.8	(0.08)	12.2	(0.13)	5.3	(0.08)
Health professionals	11.6	(0.09)	5.9	(0.09)	17.4	(0.14)
ICT professionals	2.6	(0.04)	4.8	(0.08)	0.4	(0.02)
Science-related technicians and associate professionals	1.5	(0.03)	2.1	(0.05)	0.8	(0.03)

OECD data were extracted from OECD (2016b) Table I.3.10b.

**Table A7.6. Percentages of students in Ireland studying, or intending to study, science to Leaving Certificate level, by school SSP (DEIS) status**

	In SSP		Non-SSP	
	%	SE	%	SE
Intending to study science to Leaving Certificate	79.3	(2.77)	83.6	(0.93)
Not intending to study science to Leaving Certificate	20.7	(2.77)	16.4	(0.93)

**Table A7.7. Percentages of students in Ireland studying, or intending to study, science to Leaving Certificate level, by students' immigrant and language background**

	Native		Immigrant Eng/Irish		Immigrant other language	
	%	SE	%	SE	%	SE
Intending to study science to Leaving Certificate	83.1	(1.01)	85.5	(1.85)	78.4	(2.19)
Not intending to study science to Leaving Certificate	16.8	(1.01)	14.5	(1.85)	21.6	(2.19)

**Table A7.8. Percentages of students in Ireland studying, or intending to study, science to Leaving Certificate level, by school sector and gender composition**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / Comp	
	%	SE	%	SE	%	SE	%	SE	%	SE
Intending to study science	84.9	(2.12)	82.9	(1.63)	81.1	(3.09)	80.7	(1.67)	83.9	(2.06)
Not intending to study science	15.1	(2.12)	17.1	(1.63)	18.9	(3.09)	19.3	(1.67)	16.1	(2.06)

**Table A7.9. Percentages of students who rate various factors influencing the decision to study science for the Leaving Certificate as important/not important (among students studying, or intending to study, Leaving Certificate science), in Ireland**

	Not important	Somewhat important	Quite important	Very important
	% (SE)	% (SE)	% (SE)	% (SE)
Availability of the science subjects I want to study	8.3 (0.52)	22.4 (0.65)	39.3 (0.79)	30.0 (0.88)
My grade on the Junior Cert. science exam	7.8 (0.44)	23.0 (0.62)	43.0 (0.67)	26.2 (0.67)
My interest in Leaving Cert. science subjects	3.1 (0.31)	14.2 (0.53)	42.6 (0.82)	40.2 (0.77)
How easy or hard the Leaving Cert. science subjects are	7.2 (0.40)	24.0 (0.72)	45.0 (0.87)	23.7 (0.80)
The third-level course I want to study	6.5 (0.39)	14.9 (0.63)	33.7 (0.67)	44.9 (0.77)
The career(s) I am interested in	6.7 (0.36)	12.7 (0.52)	27.8 (0.67)	52.8 (0.88)
Which teachers teach science subjects for the Leaving Cert.	16.5 (0.67)	28.8 (0.76)	31.9 (0.74)	22.8 (0.85)
The subjects that my friends are taking for the Leaving Cert.	57.2 (1.03)	26.6 (0.87)	11.6 (0.60)	4.6 (0.32)
How students did on Leaving Cert. science subjects in my school in previous years	36.2 (0.86)	32.8 (0.77)	24.0 (0.61)	7.0 (0.45)
Advice from teachers in my school	9.4 (0.47)	28.0 (0.73)	44.6 (0.75)	18.1 (0.64)
Advice from my parents	6.6 (0.40)	22.3 (0.62)	46.6 (0.75)	24.5 (0.67)
Advice from my friends, brothers or sisters	14.9 (0.56)	34.3 (0.67)	38.0 (0.65)	12.8 (0.52)
Advice from guidance counsellor in school	22.8 (0.84)	28.4 (0.66)	34.9 (0.74)	13.9 (0.65)
Advice from guidance counsellor outside school	40.7 (0.94)	26.4 (0.66)	24.2 (0.68)	8.7 (0.47)

**Table A7.10. Percentages of students who report participating in various science activities very often or regularly and sometimes or never or hardly ever, in Ireland**

	Very often or regularly		Never or hardly ever	
	%	SE	%	SE
Watch TV programmes about science	16.8	(0.54)	83.2	(0.54)
Borrow or buy books on science topics	6.3	(0.33)	93.7	(0.33)
Visit web sites about science topics	14.4	(0.55)	85.6	(0.55)
Read science magazines or science articles in newspapers	8.5	(0.41)	91.5	(0.41)
Attend a science club	1.6	(0.17)	98.4	(0.17)
Simulate natural phenomena in computer programs/virtual labs	5.8	(0.32)	94.2	(0.32)
Simulate technical processes in computer programs/virtual labs	6.5	(0.35)	93.5	(0.35)
Visit web sites of ecology organisations	4.8	(0.29)	95.2	(0.29)
Follow news of science, environmental, or ecology organizations via blogs or news websites	13.1	(0.45)	86.9	(0.45)

**Table A7.11. Percentages of students who report participating in various science activities very often or regularly and never or hardly ever by gender, in Ireland**

	Males				Females			
	Very often or regularly		Never or hardly ever		Very often or regularly		Never or hardly ever	
	%	SE	%	SE	%	SE	%	SE
Watch TV programmes about science	21.7	(0.74)	78.3	(0.74)	11.9	(0.67)	88.1	(0.67)
Borrow or buy books on science topics	7.5	(0.47)	92.5	(0.47)	5.1	(0.47)	94.9	(0.47)
Visit web sites about science topics	17.4	(0.88)	82.6	(0.88)	11.4	(0.66)	88.6	(0.66)
Read science magazines or science articles in newspapers	10.9	(0.67)	89.1	(0.67)	6.1	(0.53)	93.9	(0.53)
Attend a science club	2.2	(0.30)	97.8	(0.30)	0.9	(0.16)	99.1	(0.16)
Simulate natural phenomena in computer programs\virtual labs	8.7	(0.53)	9.3	(0.53)	2.9	(0.33)	97.1	(0.33)
Simulate technical processes in computer programs\virtual labs	10.2	(0.65)	89.8	(0.65)	2.8	(0.33)	97.2	(0.33)
Visit web sites of ecology organisations	5.2	(0.41)	94.8	(0.41)	4.3	(0.40)	95.7	(0.40)
Follow news of science, environmental, or ecology organizations via blogs or news websites	16.9	(0.64)	83.1	(0.64)	9.1	(0.60)	90.9	(0.60)

**Table A7.12. Mean scores on the Science Activities index, by school sector and gender composition, Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / comp		Difference (SED)			
	M	SE	M	SE	M	SE	M	SE	M	SE	GS-BS	GS-MS	GS-Voc	GS-CC
	Engagement with science activities	-0.46	0.04	-0.17	0.03	-0.39	0.04	-0.35	0.03	-0.46	0.05	<b>-0.29</b>	-0.07	-0.11

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.13. Mean scores on the Science Activities index, by school SSP (DEIS) status, Ireland**

	In SSP		Non-SSP		Difference In SSP-Non-SSP	
	Mean	SE	Mean	SE	Mean	SED
	Engagement with science activities	-0.44	(0.05)	-0.35	(0.02)	-0.10

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.14. Mean scores on the Science Activities index, by students' immigrant and language background, Ireland**

	Native		Immigrant Eng/Irish		Immigrant other language		Difference (SED)	
	Mean	SE	Mean	SE	Mean	SE	Native-Immig (Eng/Irish)	Native-Immig (Other)
	Engagement with science activities	-0.42	(0.02)	-0.12	(0.05)	0.06	(0.05)	<b>-0.3</b>

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.15. Percentage of students who agree/disagree with various statements about their enjoyment of doing and learning science, in Ireland**

	Agree or strongly agree		Disagree or strongly disagree	
	%	SE	%	SE
I generally have fun when I am learning science topics	64.3	(0.96)	35.7	(0.96)
I like reading about science	56.1	(0.95)	43.9	(0.95)
I am happy working on science topics	70.8	(0.85)	29.2	(0.85)
I enjoy learning new things in science	78.0	(0.73)	22.0	(0.73)
I am interested in learning about science	73.8	(0.84)	26.2	(0.84)

**Table A7.16. Percentages of students who are interested or highly interested, and not interested or hardly interested, in various science topics, and the percentages of students who do not know the topics, in Ireland**

	Interested or highly interested		Not interested or hardly interested		I don't know what this is	
	%	SE	%	SE	%	SE
Biosphere (e.g., ecosystems, sustainability)	37.0	(0.84)	49.7	(0.82)	13.3	(0.50)
Motion and forces (e.g., velocity, friction, magnetic and gravitational forces)	51.2	(0.73)	47.4	(0.75)	1.5	(0.19)
Energy and its transformation (e.g., conservation, chemical reactions)	54.0	(0.71)	44.5	(0.69)	1.5	(0.18)
The Universe and its history	69.3	(0.71)	28.3	(0.66)	2.5	(0.20)
How science can help us prevent disease	77.7	(0.74)	19.7	(0.67)	2.6	(0.22)

**Table A7.17. Percentages of students who are interested or highly interested in various science topics, by gender, in Ireland**

	Interested or highly interested			
	Males		Females	
	%	SE	%	SE
Biosphere (e.g., ecosystems, sustainability)	37.3	(1.01)	36.8	(1.14)
Motion and forces (e.g., velocity, friction, magnetic and gravitational forces)	57.4	(0.08)	37.0	(1.06)
Energy and its transformation (e.g., conservation, chemical reactions)	60.8	(0.98)	47.0	(1.00)
The Universe and its history	72.0	(0.86)	66.4	(1.02)
How science can help us prevent disease	73.0	(1.00)	82.5	(0.85)

**Table A7.18. Percentage of students who agree/disagree with various statements about their instrumental motivation to learn science, in Ireland**

	Agree or strongly agree		Disagree or strongly disagree	
	%	SE	%	SE
Making an effort in my science subject(s) is worth it because this will help me in the work I want to do later on	78.1	(0.77)	21.9	(0.77)
What I learn in my science subject(s) is important for me because I need it for what I want to do later on	67.8	(0.78)	32.2	(0.78)
Studying science subject(s) is worthwhile for me because what I learn will improve my career prospects	76.4	(0.88)	23.6	(0.88)
Many things I learn in my science subject(s) will help me to get job	71.3	(0.79)	28.7	(0.79)

**Table A7.19. Mean scores on Enjoyment of Science, Instrumental Motivation, and Interest in Science Topics, by school type, in Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / Comp		Difference (SED)			
	M	SE	M	SE	M	SE	M	SE	M	SE	GS-BS	GS-MS	GS-Voc	GS-CC
Enjoyment of science	0.26	(0.05)	0.27	(0.03)	0.20	(0.07)	0.11	(0.04)	0.18	(0.05)	-0.01 (0.06)	0.06 (0.09)	<b>0.15</b> (0.06)	0.08 (0.07)
Instrumental motivation	0.45	(0.03)	0.31	(0.04)	0.37	(0.07)	0.31	(0.03)	0.39	(0.05)	<b>0.14</b> (0.05)	0.08 (0.08)	<b>0.14</b> (0.04)	0.06 (0.06)
Interest in science topics	0.06	(0.03)	0.21	(0.02)	0.08	(0.05)	0.00	(0.03)	0.00	(0.05)	<b>-0.15</b> (0.04)	-0.02 (0.06)	<b>0.06</b> (0.04)	0.06 (0.06)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.20. Mean scores on Enjoyment of Science, Instrumental Motivation, and Interest in Science Topics, by school SSP (DEIS) status, in Ireland**

	In SSP		Non-SSP		Difference	
	Mean	SE	Mean	SE	In SSP-Non SSP	SED
Enjoyment of science	0.07	(0.05)	0.24	(0.02)	<b>-0.17</b>	(0.05)
Instrumental motivation	0.31	(0.05)	0.38	(0.02)	-0.07	(0.05)
Interest in science topics	-0.05	(0.04)	0.09	(0.02)	<b>-0.14</b>	(0.04)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.21. Mean scores on Enjoyment of Science, Instrumental Motivation, and Interest in Science Topics, by students' immigrant and language background, in Ireland**

	Native		Immigrant Eng/Irish		Immigrant other language		Difference (SED)	
	Mean	SE	Mean	SE	Mean	SE	N-Immig (E/I)	N-Immig (Oth)
Enjoyment of science	0.18	(0.02)	0.33	(0.06)	0.42	(0.06)	<b>-0.15</b> (0.06)	<b>-0.24</b> (0.06)
Instrumental motivation	0.37	(0.02)	0.41	(0.05)	0.37	(0.06)	-0.04 (0.05)	0.00 (0.06)
Interest in science topics	0.05	(0.02)	0.09	(0.05)	0.19	(0.04)	-0.04 (0.05)	<b>-0.14</b> (0.04)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.22. Percentages of students by self-reported confidence levels in completing various science tasks, in Ireland**

	I could do this easily	I could do this with a bit of effort	I would struggle to do this on my own	I couldn't do this
	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)
Recognise the scientific issue or question that underlies a newspaper report on a health issue	16.5 (0.51)	46.2 (0.65)	26.3 (0.67)	11.0 (0.48)
Explain why earthquakes occur more frequently in some areas than in others	48.8 (0.92)	36.6 (0.71)	10.7 (0.46)	4.0 (0.32)
Describe the role of antibiotics in the treatment of disease	20.9 (0.66)	39.2 (0.66)	28.3 (0.72)	11.6 (0.46)
Identify the scientific issues and questions associated with the disposal of rubbish	20.9 (0.58)	43.6 (0.76)	25.5 (0.61)	10.1 (0.48)
Predict how changes to an environment will affect the survival of certain species	25.2 (0.62)	42.7 (0.64)	22.4 (0.57)	9.7 (0.43)
Interpret the scientific information provided on the labelling of food items	20.4 (0.58)	40.5 (0.60)	27.5 (0.56)	11.6 (0.45)
Discuss how new evidence can lead you to change your understanding about the possibility of life on Mars	13.9 (0.48)	31.8 (0.62)	33.2 (0.66)	21.1 (0.61)
Identify the better of two explanations for the formation of acid rain	29.8 (0.80)	36.7 (0.76)	21.4 (0.70)	12.1 (0.52)

**Table A7.23. Percentages of students who report feeling confident (I can do this easily) in completing various science tasks, by gender, in Ireland**

	I can do this easily			
	Males		Females	
	Mean	SE	Mean	SE
Recognise the scientific issue or question that underlies a newspaper report on a health issue	18.6	(0.69)	14.4	(0.70)
Explain why earthquakes occur more frequently in some areas than in others	51.1	(1.12)	46.4	(1.31)
Describe the role of antibiotics in the treatment of disease	21.8	(0.85)	19.9	(0.91)
Identify the scientific issues and questions associated with the disposal of rubbish	21.9	(0.82)	19.9	(0.81)
Predict how changes to an environment will affect the survival of certain species	26.5	(0.73)	23.9	(1.01)
Interpret the scientific information provided on the labelling of food items	19.3	(0.71)	21.4	(0.84)
Discuss how new evidence can lead you to change your understanding about the possibility of life on Mars	17.8	(0.67)	9.9	(0.64)
Identify the better of two explanations for the formation of acid rain	31.2	(1.04)	28.4	(1.03)

**Table A7.24. Mean scores on the Science Self-Efficacy index by school type, in Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / comp		Difference (SED)			
	M	SE	M	SE	M	SE	M	SE	M	SE	GS-BS	GS-MS	GS-Voc	GS-CC
Science self-efficacy	0.02	(0.04)	0.25	(0.03)	0.08	(0.06)	0.01	(0.04)	-0.02	(0.05)	<b>-0.23</b>	-0.06	0.01	0.04
											(0.05)	(0.07)	(0.06)	(0.06)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.25. Mean scores on the Science Self-Efficacy index by students' immigrant and language background, in Ireland**

	Native		Immigrant Eng/Irish		Immigrant other language		Difference (SED)	
	Mean	SE	Mean	SE	Mean	SE	N-Immig (E/I)	N-Immig (Oth)
	Science self-efficacy	0.05	(0.02)	0.16	(0.06)	0.11	(0.06)	-0.11
							(0.06)	(0.06)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.26. Mean scores on the Science Self-Efficacy index by school SSP (DEIS) status, in Ireland**

	In SSP		Non-SSP		Difference	
	Mean	SE	Mean	SE	In SSP-Non SSP	SED
Science self-efficacy	-0.07	(0.05)	0.10	(0.02)	<b>0.17</b>	(0.03)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A.27. Percentages of students who agree/disagree with various statements about their epistemic beliefs (valuing scientific approaches to enquiry) about science, in Ireland**

	Agree or strongly agree		Disagree or strongly disagree	
	%	SE	%	SE
A good way to know if something is true is to do an experiment	93.4	(0.42)	6.6	(0.42)
Ideas in science sometimes change	91.8	(0.42)	8.2	(0.42)
Good answers are based on evidence from many different experiments	93.2	(0.39)	6.8	(0.39)
It is good to try experiments more than once to make sure of your findings	93.9	(0.39)	6.1	(0.34)
Sometimes scientists change their minds about what is true in science	81.6	(0.50)	18.4	(0.50)
The ideas in science books sometimes change	81.8	(0.56)	18.2	(0.56)

**Table A7.28 Mean scores on the Epistemic Beliefs (valuing scientific approaches to enquiry) index by school type, in Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / comp		Difference (SED)			
	M	SE	M	SE	M	SE	M	SE	M	SE	GS-BS	GS-MS	GS-Voc	GS-CC
Epistemic beliefs	0.25	(0.03)	0.24	(0.03)	0.20	(0.03)	0.17	(0.03)	0.20	(0.04)	0.01 (0.04)	0.05 (0.04)	0.08 (0.04)	0.05 (0.05)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.29 Mean scores on the Epistemic Beliefs (valuing scientific approaches to enquiry) index by students' immigrant and language background, in Ireland**

	Native		Immigrant Eng/Irish		Immigrant other language		Difference (SED)	
	Mean	SE	Mean	SE	Mean	SE	N-Immig (E/I)	N-Immig (Oth)
Epistemic beliefs	0.20	(0.01)	0.30	(0.05)	0.26	(0.05)	-0.10 (0.05)	-0.06 (0.05)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.30. Mean scores on the Epistemic Beliefs (valuing scientific approaches to enquiry) index by school SSP (DEIS) status, in Ireland**

	In SSP		Non-SSP		Difference	
	Mean	SE	Mean	SE	SSP-Non SSP	SE Diff
Epistemic beliefs	0.15	(0.03)	0.23	(0.02)	-0.08	(0.04)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A.7.31. Percentages of students by self-reported level of familiarity with various scientific issues, in Ireland**

	I have never heard of this		I have heard about this but I would not be able to explain what it is really about		I know something about this and could explain the general issue		I am familiar with this and I would be able to explain this well	
	%	SE	%	SE	%	SE	%	SE
The increase of greenhouse gases in the atmosphere	4.7	(0.41)	16.7	(0.70)	36.0	(0.72)	42.6	(1.01)
The use of genetically modified plants and animals (e.g. GMO crops)	23.6	(0.68)	41.3	(0.76)	25.4	(0.68)	9.7	(0.44)
Nuclear waste	4.1	(0.27)	36.5	(0.60)	42.0	(0.69)	17.3	(0.48)
The consequences of clearing forests for other land use	3.7	(0.35)	12.7	(0.50)	37.0	(0.67)	46.6	(0.80)
Air pollution	1.6	(0.19)	10.4	(0.50)	40.6	(0.74)	47.5	(0.79)
Extinction of plants and animals	2.9	(0.26)	16.5	(0.51)	41.0	(0.75)	39.7	(0.69)
Shortage of water resources	4.4	(0.32)	20.0	(0.59)	41.5	(0.70)	34.1	(0.78)

**Table A7.32. Percentages of students who think various environmental issues will improve, stay about the same, or get worse over the next 20 years, in Ireland**

	Improve		Stay about the same		Get worse	
	%	SE	%	SE	%	SE
Air pollution	18.9	(0.49)	17.9	(0.58)	63.2	(0.64)
Extinction of plants and animals	15.3	(0.50)	28.9	(0.67)	55.7	(0.74)
Clearing of forests for other land use	17.6	(0.55)	19.9	(0.63)	62.5	(0.75)
Shortage of water resources	23.8	(0.58)	33.9	(0.66)	42.3	(0.60)
Nuclear waste	20.6	(0.54)	34.2	(0.72)	45.2	(0.65)
The increase of greenhouse gases in the atmosphere	18.5	(0.48)	20.8	(0.69)	60.7	(0.82)
The use of genetically modified plants and animals (e.g. GMO crops)	26.3	(0.65)	42.0	(0.66)	31.6	(0.67)

**Table A7.33. Mean scores on the Environmental Awareness and Environmental Optimism indices by school type, in Ireland**

	Girls' Secondary		Boys' Secondary		Mixed Secondary		Vocational		Community / comp		Difference (SED)			
	M	SE	M	SE	M	SE	M	SE	M	SE	GS-BS	GS-MS	GS-Voc	GS-CC
Env. awareness	0.31	(0.03)	0.45	(0.03)	0.39	(0.05)	0.23	(0.04)	0.23	(0.05)	<b>-0.14</b>	-0.08	0.08	0.08
Env. optimism	-0.03	(0.03)	0.11	(0.03)	0.12	(0.03)	0.14	(0.03)	0.15	(0.04)	<b>-0.14</b>	<b>-0.15</b>	<b>-0.17</b>	<b>-0.18</b>

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference. Env. = environmental.

**Table A7.34. Mean scores on the Environmental Awareness and Environmental Optimism indices by students' immigrant and language background, in Ireland**

	Native		Immigrant Eng/Irish		Immigrant other language		Difference (SED)	
	Mean	SE	Mean	SE	Mean	SE	N-Immig (E/I)	N-Immig (Oth)
Environmental awareness	0.29	(0.02)	0.48	(0.05)	0.47	(0.06)	<b>-0.19</b>	(0.05) -0.18 (0.06)
Environmental optimism	0.09	(0.02)	0.00	(0.06)	0.13	(0.06)	0.09	(0.06) -0.04 (0.06)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A7.35. Mean scores on the Environmental Awareness and Environmental Optimism indices by school SSP (DEIS) status, in Ireland**

	In SSP		Non-SSP		Difference	
	Mean	SE	Mean	SE	In SSP-Non SSP	SED
Environmental awareness	0.19	(0.05)	0.35	(0.02)	<b>-0.16</b>	(0.15)
Environmental optimism	0.14	(0.04)	0.08	(0.02)	0.06	(0.04)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

## Chapter 8 Tables

**Table A8.1. Comparisons of mean overall science scores for Ireland and the average across OECD countries, in 2006, 2009, 2012 and 2015**

	Ireland		OECD		Diff	SED
	Mean	SE	Mean	SE	IRL-OECD	
2006	508.3	(3.19)	497.7	(0.50)	<b>10.6</b>	(3.09)
2009	508.0	(3.27)	500.8	(0.49)	<b>7.2</b>	(3.17)
2012	522.0	(2.45)	501.0	(0.49)	<b>21.0</b>	(2.38)
2015	502.6	(2.39)	493.1	(0.44)	<b>9.5</b>	(2.32)
	Diff	SED	Diff	SED		
2015-2006	-5.8	(5.99)	-4.5	(4.53)	-	-
2015-2009	-5.4	(6.05)	-7.7	(4.55)	-	-
2015-2012	<b>-19.4</b>	(5.20)	<b>-7.9</b>	(3.98)	-	-

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.2. Percentage of Students below Proficiency Level 2 on the overall science scale in Ireland, selected comparison countries and the OECD**

	Ireland		OECD		Australia		Korea		Netherlands		Germany		Canada	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
2006	15.5	(1.08)	19.9	(0.19)	12.9	(0.59)	11.2	(1.13)	13.0	(1.04)	15.4	(1.34)	10.0	(0.60)
2009	15.2	(1.10)	17.8	(0.18)	12.6	(0.62)	6.3	(0.85)	13.2	(1.57)	14.8	(1.03)	9.6	(0.45)
2012	11.1	(0.88)	17.7	(0.18)	13.6	(0.48)	6.6	(0.77)	13.1	(1.12)	12.2	(0.90)	10.4	(0.47)
2015	15.3	(0.96)	21.3	(0.17)	17.6	(0.56)	14.4	(0.91)	18.5	(0.97)	17.0	(0.95)	11.1	(0.53)
	Diff	SED	Diff	SED	Diff	SED	Diff	SED	Diff	SED	Diff	SED	Diff	SED
2015-2006	-0.2	(2.19)	1.4	(1.76)	<b>4.8</b>	(1.40)	3.1	(1.74)	<b>5.6</b>	(2.12)	1.6	(2.00)	1.1	(1.03)
2015-2009	0.2	(2.21)	<b>3.5</b>	(1.77)	<b>5.1</b>	(1.42)	<b>8.0</b>	(1.57)	<b>5.4</b>	(2.44)	2.2	(1.82)	1.5	(0.96)
2015-2012	<b>4.2</b>	(1.81)	<b>3.6</b>	(1.35)	<b>4.0</b>	(1.15)	<b>7.8</b>	(1.39)	<b>5.4</b>	(1.90)	<b>4.8</b>	(1.57)	0.7	(0.86)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.3. Percentage of Students at or above Proficiency Level 5 on the overall science scale in Ireland, selected comparison countries and the OECD**

	Ireland		OECD		Australia		Korea		Netherlands		Germany		Canada	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
2006	9.4	(0.71)	8.7	(0.11)	14.6	(0.68)	10.3	(1.06)	13.1	(0.85)	11.8	(0.70)	14.4	(0.54)
2009	8.7	(0.77)	8.4	(0.12)	14.5	(0.82)	11.6	(1.06)	12.7	(1.23)	12.8	(0.77)	12.1	(0.48)
2012	10.7	(0.58)	8.3	(0.12)	13.6	(0.55)	11.7	(1.13)	11.8	(1.06)	12.2	(0.95)	11.3	(0.55)
2015	7.1	(0.47)	7.7	(0.09)	11.2	(0.45)	10.6	(0.80)	11.1	(0.58)	10.6	(0.61)	12.4	(0.61)
	Diff	SED	Diff	SED	Diff	SED	Diff	SED	Diff	SED	Diff	SED	Diff	SED
2015-2006	<b>-2.4</b>	(0.98)	1.0	(0.61)	<b>-3.4</b>	(1.17)	0.3	(1.63)	-2.0	(1.36)	-1.2	(1.12)	-2.1	(1.76)
2015-2009	-1.7	(1.03)	0.6	(0.61)	<b>-3.4</b>	(1.26)	-1.0	(1.63)	-1.6	(1.63)	-2.2	(1.17)	0.3	(1.75)
2015-2012	<b>-3.7</b>	(0.83)	0.6	(0.48)	<b>-2.4</b>	(0.95)	-1.1	(1.56)	-0.7	(1.38)	-1.6	(1.22)	1.1	(1.45)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.4. Comparisons of mean science scores of male and female students in Ireland, in 2006, 2012 and 2015**

	Male		Female		Diff	SED
	Mean	SE	Mean	SE		
2006	508.1	(4.33)	508.5	(3.31)	-0.4	(4.31)
2009	506.6	(4.26)	509.4	(3.81)	-2.8	(4.56)
2012	523.9	(3.45)	520.0	(3.14)	3.9	(4.41)
2015	507.7	(3.16)	497.2	(2.62)	<b>10.5</b>	(3.21)
	Diff	SED	Diff	SED	Diff	SED
2015-2006	-0.4	(6.99)	<b>-11.4</b>	(6.15)	-	-
2015-2012	<b>-16.2</b>	(6.10)	<b>-22.8</b>	(5.67)	-	-

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.5. Percentage of male and female students below Proficiency level 2 and at or above Proficiency level 5 on the science scale in 2006 and 2015, in Ireland and on average across OECD countries**

		Below Level 2				At or above Level 5			
		Male		Female		Male		Female	
		%	SE	%	SE	%	SE	%	SE
2006	Ireland	16.5	(1.54)	14.5	(1.09)	10.3	(1.00)	8.5	(0.80)
	OECD	20.3	(0.24)	19.3	(0.22)	9.7	(0.15)	7.8	(0.13)
2015	Ireland	15.7	(1.22)	14.9	(1.12)	9.0	(0.76)	5.0	(0.51)
	OECD	21.8	(0.22)	20.7	(0.21)	8.9	(0.13)	6.5	(0.11)

**Table A8.6. Comparisons of mean overall reading literacy scores for Ireland and on average across OECD countries, 2009-2015**

	Ireland		OECD		Diff	SED
	Mean	SE	Mean	SE		
2009	495.6	(2.97)	494.1	(0.49)	1.5	(3.01)
2012	523.2	(2.55)	496.7	(0.51)	<b>26.5</b>	(2.60)
2015	520.8	(2.47)	492.9	(0.48)	<b>27.9</b>	(2.51)
	Diff	SED	Diff	SED	IRL-OECD	
2015-2009	<b>25.2</b>	(5.17)	-1.2	(3.50)	--	--
2015-2012	-2.4	(6.34)	-3.7	(5.30)	--	--
Average 3-year difference since 2009	<b>12.8</b>	(2.61)	-0.6	(1.74)		

Significant differences in bold. SE = standard error of the mean; SED = standard error of the difference. OECD average excludes Austria.

**Table A8.7. Percentage of students below Proficiency Level 2 and at or above Proficiency Level 5 on the reading literacy scale in 2006 and 2015, in Ireland and on average across OECD countries**

	Ireland				OECD			
	Below Level 2		At or above Level 5		Below Level 2		At or above Level 5	
	%	SE	%	SE	%	SE	%	SE
2009	17.2	(1.05)	7.0	(0.53)	18.5	(0.18)	7.5	(0.11)
2012	9.6	(0.88)	11.4	(0.65)	17.9	(0.18)	8.4	(0.12)
2015	10.2	(0.80)	10.7	(0.65)	20.0	(0.18)	8.4	(0.11)
	Diff	SED	Diff	SED	Diff	SED	Diff	SED
2015-2009	<b>-7.1</b>	(1.42)	<b>3.7</b>	(1.18)	1.5	(0.86)	0.8	(0.45)
2015-2012	0.6	(1.66)	-0.7	(2.11)	2.1	(1.93)	0.0	(1.01)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.8. Comparisons of mean reading scores of male and female students in Ireland, in 2009, 2012 and 2015**

	Male		Female		Diff M-F	SED
	Mean	SE	Mean	SE		
2009	476.3	(4.23)	515.5	(3.15)	<b>-39.2</b>	(4.73)
2012	509.2	(3.50)	537.7	(3.03)	<b>-28.5</b>	(4.22)
2015	515.0	(3.20)	526.9	(2.68)	<b>-12.0</b>	(3.38)
	Diff	SED	Diff	SED		
2015-2009	<b>38.7</b>	(6.32)	<b>11.5</b>	(5.37)	-	-
2015-2012	5.8	(7.08)	<b>-10.7</b>	(6.63)	-	-

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.9. Percentage of male and female students below Proficiency Level 2 and at or above Proficiency Level 5 on the reading literacy scale in 2006 and 2015, in Ireland and on average across OECD countries**

		Below Level 2				At or above Level 5			
		Male		Female		Male		Female	
		%	SE	%	SE	%	SE	%	SE
2009	Ireland	23.1	(1.70)	11.2	(1.00)	4.5	(0.65)	9.5	(0.88)
	OECD	24.7	(0.25)	12.2	(0.17)	5.2	(0.12)	9.9	(0.16)
2012	Ireland	13.0	(1.35)	6.1	(0.85)	8.5	(0.74)	14.4	(1.03)
	OECD	23.8	(0.26)	11.8	(0.18)	6.1	(0.13)	10.8	(0.17)
2015	Ireland	12.3	(1.08)	8.0	(0.84)	10.7	(0.88)	10.7	(0.99)
	OECD	24.4	(0.24)	15.5	(0.20)	6.8	(0.12)	9.9	(0.15)

OECD average excludes Austria.

**Table A8.10. Comparisons of mean overall mathematics scores in Ireland and on average across OECD countries, 2009-2015**

	Ireland		OECD		Diff	SED
	Mean	SE	Mean	SE	IRL-OECD	
2003	502.8	(2.45)	499.2	(0.57)	3.60	(2.52)
2006	501.5	(2.79)	497.4	(0.54)	4.10	(2.84)
2009	487.1	(2.54)	495.3	(0.49)	<b>-8.20</b>	(2.59)
2012	501.5	(2.25)	496.1	(0.52)	<b>5.40</b>	(2.31)
2015	503.7	(2.05)	491.4	(0.48)	<b>12.30</b>	(2.11)
	Diff	SED	Diff	SED		
2015-2003	0.9	(6.45)	-7.7	(5.66)	--	--
2015-2006	2.3	(4.93)	-5.9	(3.58)	--	--
2015-2009	<b>16.6</b>	(5.00)	--	--	--	--
2015-2012	2.2	(4.67)	-4.7	(3.62)	--	--
Average 3-year difference	0.1	(0.90)	<b>-1.7</b>	(0.55)		

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference. OECD data based on countries that participated in PISA 2003 and subsequent cycles, except 2009, which draws on the values for countries that participated in PISA 2009 and 2015.

**Table A8.11. Comparisons of percentage of students performing below Proficiency Level 2 and at or above Proficiency Level 5 on the mathematics scale in Ireland and on average across OECD countries, in 2003-2015**

	Ireland				OECD			
	Below Level 2		At or above Level 5		Below Level 2		At or above Level 5	
	%	SE	%	SE	%	SE	%	SE
2003	16.8	(0.97)	11.4	(0.79)	21.6	(0.22)	14.4	(0.17)
2006	16.4	(1.22)	10.2	(0.78)	21.3	(0.21)	13.2	(0.16)
2009	20.8	(0.97)	6.7	(0.65)	22.0	(0.19)	12.5	(0.15)
2012	16.9	(0.99)	10.7	(0.54)	22.2	(0.19)	12.9	(0.16)
2015	15.0	(0.89)	9.8	(0.58)	22.9	(0.20)	10.8	(0.14)
	Diff	SED	Diff	SED	Diff	SED	Diff	SED
2015-2003	-1.8	(3.25)	-1.5	(1.93)	1.3	(3.08)	<b>-3.6</b>	(1.67)
2015-2006	-1.4	(1.88)	-0.4	(1.16)	1.6	(1.23)	<b>-2.4</b>	(0.68)
2015-2009	<b>-5.8</b>	(1.85)	<b>3.2</b>	(1.14)	1.4	(1.44)	<b>-1.9</b>	(0.75)
2015-2012	-1.9	(1.75)	-0.8	(1.01)	0.7	(1.25)	<b>-2.1</b>	(0.69)

Significant differences in bold. SE = standard error of the mean; SED = standard error of the difference. OECD data based on countries that participated in PISA 2003 and subsequent cycles, except 2009, which draws on the values for countries that participated in PISA 2009 and 2015.

**Table A8.12. Comparisons of mean mathematics scores of male and female students in Ireland, 2003-2015**

	Male		Female		Diff M-F	SED
	Mean	SE	Mean	SE		
2003	510.2	(3.01)	495.4	(3.39)	<b>14.8</b>	(4.19)
2009	490.9	(3.88)	483.3	(3.02)	7.5	(3.88)
2012	509.0	(3.25)	493.7	(2.62)	<b>15.3</b>	(3.79)
2015	511.6	(2.96)	495.4	(2.42)	<b>16.1</b>	(3.42)
	Diff	SED	Diff	SED		
2015-2003	1.4	(7.02)	0.1	(6.99)	-	-
2015-2009	<b>20.7</b>	(4.88)	<b>12.1</b>	(3.87)		
2015-2012	2.5	(5.65)	1.7	(5.03)	-	-

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.13. Comparisons of mean mathematics scores of male and female students in Ireland and on average across OECD countries, in 2012 and 2015**

	2012						2015					
	Male		Female		Diff	SED	Male		Female		Diff	SED
	Mean	SE	Mean	SE			Mean	SE	Mean	SE		
Ireland	509.0	(3.25)	493.7	(2.62)	<b>15.3</b>	(3.79)	511.6	(2.96)	495.4	(2.42)	<b>16.1</b>	(3.42)
OECD	501.2	(0.63)	490.9	(0.58)	<b>10.3</b>	(0.63)	495.2	(0.60)	487.6	(0.55)	<b>7.7</b>	(0.65)
	Diff	SED	Diff	SED			Diff	SED	Diff	SED		
OECD- IRL	<b>-7.8</b>	<b>(3.14)</b>	-2.8	(2.53)			<b>-16.4</b>	<b>(2.86)</b>	<b>-7.8</b>	<b>(2.33)</b>		

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference. OECD data based on countries that participated in PISA 2003 and subsequent cycles.

**Table A8.14. Percentage of male and female students below Proficiency Level 2 and at or above Proficiency Level 5 on the mathematics scale in 2003, 2012 and 2015 in Ireland and on average across OECD countries**

		Below Level 2				At or above Level 5			
		Male		Female		Male		Female	
		%	SE	%	SE	%	SE	%	SE
2003	Ireland	15.0	(1.35)	18.7	(1.36)	13.7	(1.11)	9.0	(0.98)
	OECD	20.9	(0.27)	22.2	(0.27)	16.6	(0.23)	12.3	(0.19)
2012	Ireland	15.2	(1.41)	18.7	(1.24)	12.7	(0.88)	8.5	(0.71)
	OECD	21.5	(0.23)	22.9	(0.24)	14.9	(0.21)	10.8	(0.18)
2015	Ireland	14.1	(1.17)	15.8	(1.01)	12.9	(0.96)	6.5	(0.80)
	OECD	22.6	(0.25)	23.2	(0.25)	12.6	(0.19)	9.0	(0.16)

OECD data based on countries that participated in PISA 2003 and subsequent cycles.

**Table A8.15. Change in reading achievement scores between 2012 and 2015 by school sector and gender composition for Ireland**

	2012			2015			Difference 2015-2012	
	%	Mean	SE	%	Mean	SE	Mean	SED
Girls' Secondary	21.6	544.1	(5.74)	21.1	539.2	(3.66)	-4.88	(6.81)
Boys' Secondary	16.2	525.2	(7.64)	16.7	528.0	(5.73)	2.76	(9.55)
Community/ Comprehensive	16.8	512.8	(5.64)	17.6	511.6	(3.85)	-1.19	(6.83)
Mixed Secondary	20.3	527.2	(5.50)	18.6	527.5	(5.78)	0.32	(7.98)
Vocational	25.1	507.6	(6.50)	26.0	502.8	(5.89)	-4.82	(8.77)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

**Table A8.16. Change in mathematics achievement scores between 2012 and 2015 by school sector and gender composition for Ireland**

	Mathematics 2012*			Mathematics 2015			Difference 2015-2012	
	%	Mean	SE	%	Mean	SE	Mean	SE
Girls' secondary	21.6	501.7	(5.27)	21.1	505.6	(3.62)	3.9	(6.39)
Boys' secondary	16.2	520.7	(7.02)	16.7	524.8	(5.52)	4.10	(8.93)
Community/comprehensive	16.8	491.7	(4.23)	17.6	498.6	(3.91)	6.90	(5.76)
Mixed secondary	20.3	505.5	(4.59)	18.6	514.0	(5.19)	8.50	(6.73)
Vocational (ref)	25.1	492.2	(5.86)	26.0	484.9	(5.15)	-7.30	(7.80)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

\* Print Mathematics.

**Table A8.17. Change in reading achievement scores between 2009 and 2015 by current school grade for Ireland**

	2009			2015			Diff 2015-2009	
	%	Mean	SE	%	Mean	SE	Mean Diff	SED
First*/Second Year	2.5	376.0	(10.88)	1.9	433.8	(8.83)	<b>57.8</b>	(14.0)
Third Year	59.1	487.9	(3.43)	60.5	517.4	(2.61)	<b>29.5</b>	(4.31)
Transition Year	24.0	525.3	(4.42)	26.7	542.4	(3.68)	<b>17.1</b>	(5.75)
Fifth Year	14.4	498.2	(5.51)	10.9	505.6	(5.49)	7.40	(7.79)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.

\* First Year students = 0.1%.

**Table A8.18. Change in mathematics achievement scores between 2012 and 2015 by current school grade for Ireland**

	2012			2015			Diff 2015-2012	
	%	Mean	SE	%	Mean	SE	Mean Diff	SED
Second Year	1.9	444.9	(10.58)	1.9	429.5	(9.24)	-15.4	(14.1)
Third Year	60.5	494.8	(2.34)	60.5	500.0	(2.16)	5.20	(3.18)
Transition Year	24.3	522.7	(3.95)	26.7	521.4	(3.43)	-1.3	(5.23)
Fifth Year	13.3	501.6	(5.48)	10.9	495.2	(5.16)	-6.4	(7.53)

Significant differences are in bold. SE = standard error of the mean; SED = standard error of the difference.