
December 7, 2019

PISA 2018: Summary of results for Canada

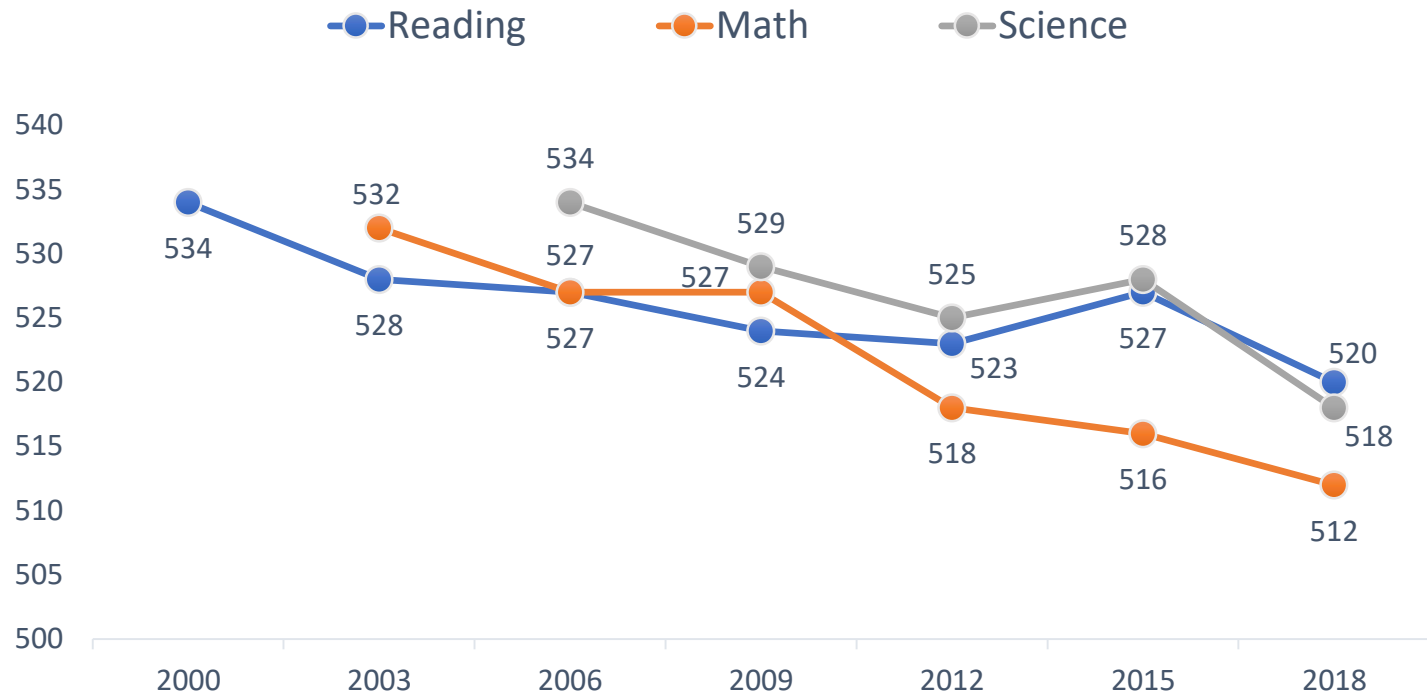
DRAFT (Last update: December 7 @ 1:00 pm)

Dr. Andrew Parkin
Executive Director
Environics Institute for Survey Research



Trends in PISA Mean Scores for Each Domain, Canada (2000-2015)

2000-18



Source: CMEC, *Measuring Up* (2019)

PISA 2018: Summary of results for Canada



Snapshot of performance in reading, mathematics and science (2018)

Yellow = significantly above Canada

Blue = significantly below Canada

Reading		Math		Science	
B-S-J-Z (China)	555	B-S-J-Z (China)	591	B-S-J-Z (China)	590
Singapore	549	Singapore	569	Singapore	551
Macao (China)	525	Macao (China)	558	Macao (China)	544
Hong Kong (China)	524	Hong Kong (China)	551	Viet Nam	543
Estonia	523	Chinese Taipei	531	Estonia	530
Canada	520	Japan	527	Japan	529
Finland	520	Korea	526	Finland	522
Ireland	518	Estonia	523	Korea	519
Korea	514	Netherlands	519	Canada	518
Poland	512	Poland	516	Hong Kong (China)	517
Sweden	506	Switzerland	515	Chinese Taipei	516
New Zealand	506	Canada	512	Poland	511
United States	505	Denmark	509	New Zealand	508
Viet Nam	505	Slovenia	509	Slovenia	507
United Kingdom	504	Belgium	508	United Kingdom	505
Japan	504	Finland	507	Netherlands	503
Australia	503	Sweden	502	Germany	503
Chinese Taipei	503	United Kingdom	502	Australia	503
Denmark	501	Norway	501	United States	502
Norway	499	Germany	500	Sweden	499
Germany	498	Ireland	500	Belgium	499
Slovenia	495	Czech Republic	499	Czech Republic	497
Belgium	493	Austria	499	Ireland	496
France	493	Latvia	496	Switzerland	495
Portugal	492	Viet Nam	496	France	493
Czech Republic	490	France	495	Denmark	493
OECD average	487	Iceland	495	Portugal	492
Netherlands	485	New Zealand	494	Norway	490
Austria	484	Portugal	492	Austria	490
Switzerland	484	Australia	491	OECD average	489
Croatia	479	OECD average	489	Latvia	487



Canada's Performance in Comparative Perspective

2018

	Reading	Math	Science
Those performing better than Canada	B-S-J-Z (China), Singapore, Macao (China)	B-S-J-Z (China), Singapore, Macao (China), Hong Kong (China), Chinese Taipei, Japan, Korea, Estonia, Netherlands	B-S-J-Z (China), Singapore, Macao (China), Viet Nam, Estonia, Japan
Those performing as well as Canada	Hong Kong (China), Estonia, Finland, Ireland, Korea	Poland, Switzerland, Denmark, Slovenia, Belgium, Finland	Finland, Korea, Hong Kong, Chinese Taipei

Countries/economies in red have moved ahead of Canada

Countries/economies in blue have caught up to Canada

PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I); CMEC, Measuring Up (2019)



Rank of OECD countries that place in top five (among OECD countries) in at least two of three subjects

2018

	Reading	Math	Science
Estonia	1	3	1
Korea	5	2	4
Canada	2	7	5
Japan	11	1	2
Finland	3	11	3

Places in top five among OECD countries in all three domains

PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Rank of OECD countries that place in top ten (among OECD countries) in at least two of three subjects

2018

	Reading	Math	Science
Estonia	1	3	1
Korea	5	2	4
Canada	2	7	5
Japan	11	1	2
Finland	3	11	3
Poland	6	5	6
UK	10	13	9
Slovenia	16	9	8
Netherlands	21	4	10
New Zealand	8	22	7

Places in top ten among OECD countries in all three domains

PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)

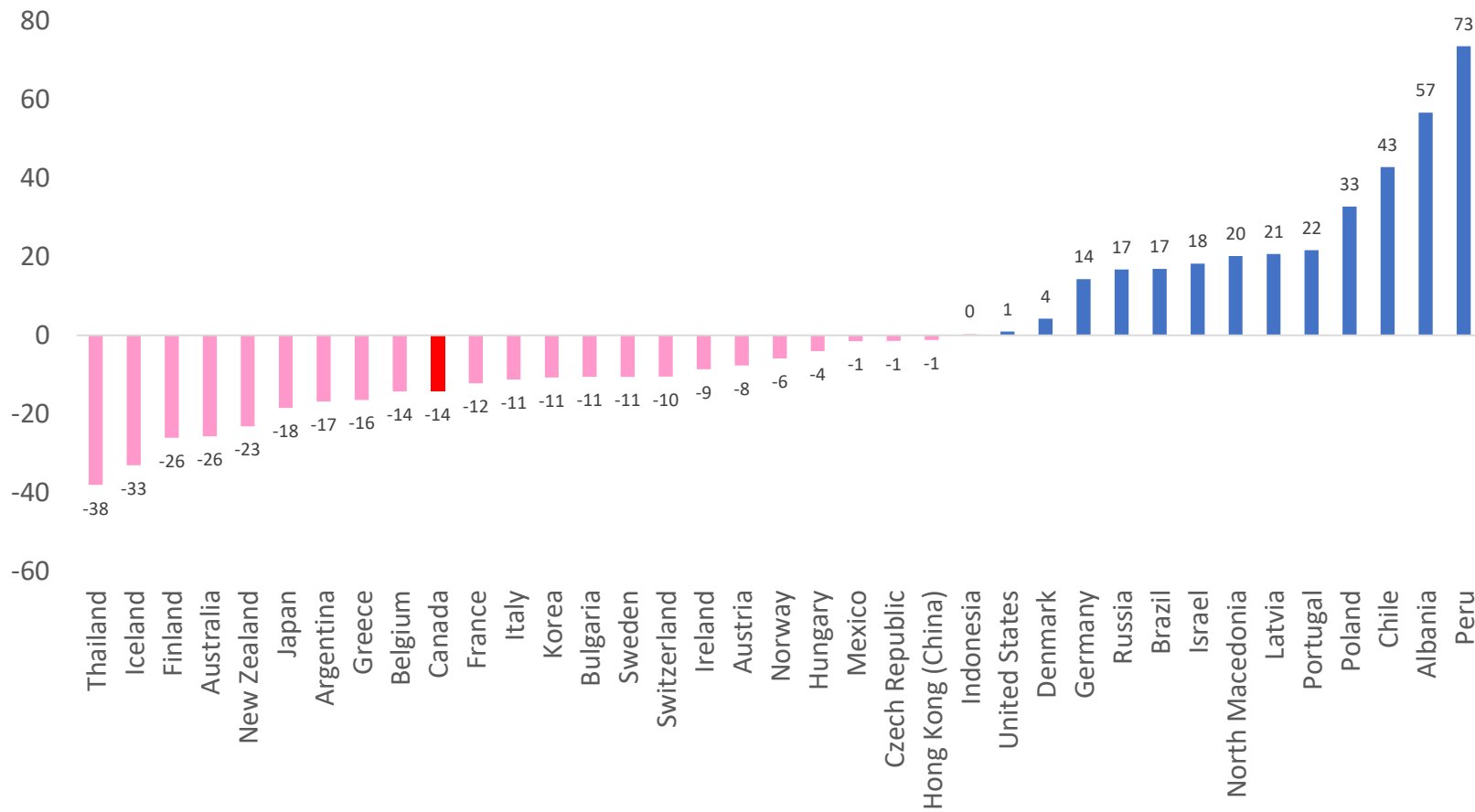


Performance in reading, mathematics and science: provinces in international context (2018)

Reading		Math		Science	
B-S-J-Z (China)	555	B-S-J-Z (China)	591	B-S-J-Z (China)	590
Singapore	549	Singapore	569	Singapore	551
Alberta	532	Macao (China)	558	Macao (China)	544
Macao (China)	525	Hong Kong (China)	551	Viet Nam	543
Hong Kong (China)	524	Quebec	532	Alberta	534
Ontario	524	Chinese Taipei	531	Estonia	530
Estonia	523	Japan	527	Japan	529
Canada	520	Korea	526	Finland	522
Finland	520	Estonia	523	Quebec	522
Quebec	519	Netherlands	519	Korea	519
British Columbia	519	Poland	516	Ontario	519
Ireland	518	Switzerland	515	Canada	518
Nova Scotia	516	Ontario	513	Hong Kong (China)	517
Korea	514	Canada	512	British Columbia	517
Nfld & Lab	512	Alberta	511	Chinese Taipei	516
Poland	512	Denmark	509	Poland	511
Sweden	506	Slovenia	509	New Zealand	508
New Zealand	506	Belgium	508	Nova Scotia	508
United States	505	Finland	507	Slovenia	507
Viet Nam	505	British Columbia	504	Nfld & Lab	506
United Kingdom	504	Sweden	502	United Kingdom	505
Japan	504	United Kingdom	502	Netherlands	503
Australia	503	Norway	501	Germany	503
Chinese Taipei	503	Germany	500	Australia	503
Prince Edward Island	503	Ireland	500	United States	502
Denmark	501	Czech Republic	499	Prince Edward Island	502
Norway	499	Austria	499	Saskatchewan	501
Saskatchewan	499	Latvia	496	Sweden	499
Germany	498	Viet Nam	496	Belgium	499
Slovenia	495	France	495	Czech Republic	497
Manitoba	494	Iceland	495	Ireland	496
Belgium	493	New Zealand	494	Switzerland	495
France	493	Nova Scotia	494	France	493
Portugal	492	Portugal	492	Denmark	493
Czech Republic	490	Australia	491	New Brunswick	492
New Brunswick	489	New Brunswick	491	Portugal	492
OECD average	487	OECD average	489	Norway	490
Netherlands	485	Nfld & Lab	488	Austria	490
Austria	484	Russia	488	Manitoba	489
Switzerland	484	Italy	487	OECD average	489
Croatia	479	Prince Edward Island	487	Latvia	487
Latvia	479	Slovak Republic	486	Spain	483
Russia	479	Saskatchewan	485	Lithuania	482
Italy	476	Luxembourg	483	Hungary	481
Hungary	476	Manitoba	482	Russia	478



Change in Mean Reading Scores, PISA 2000 to 2018

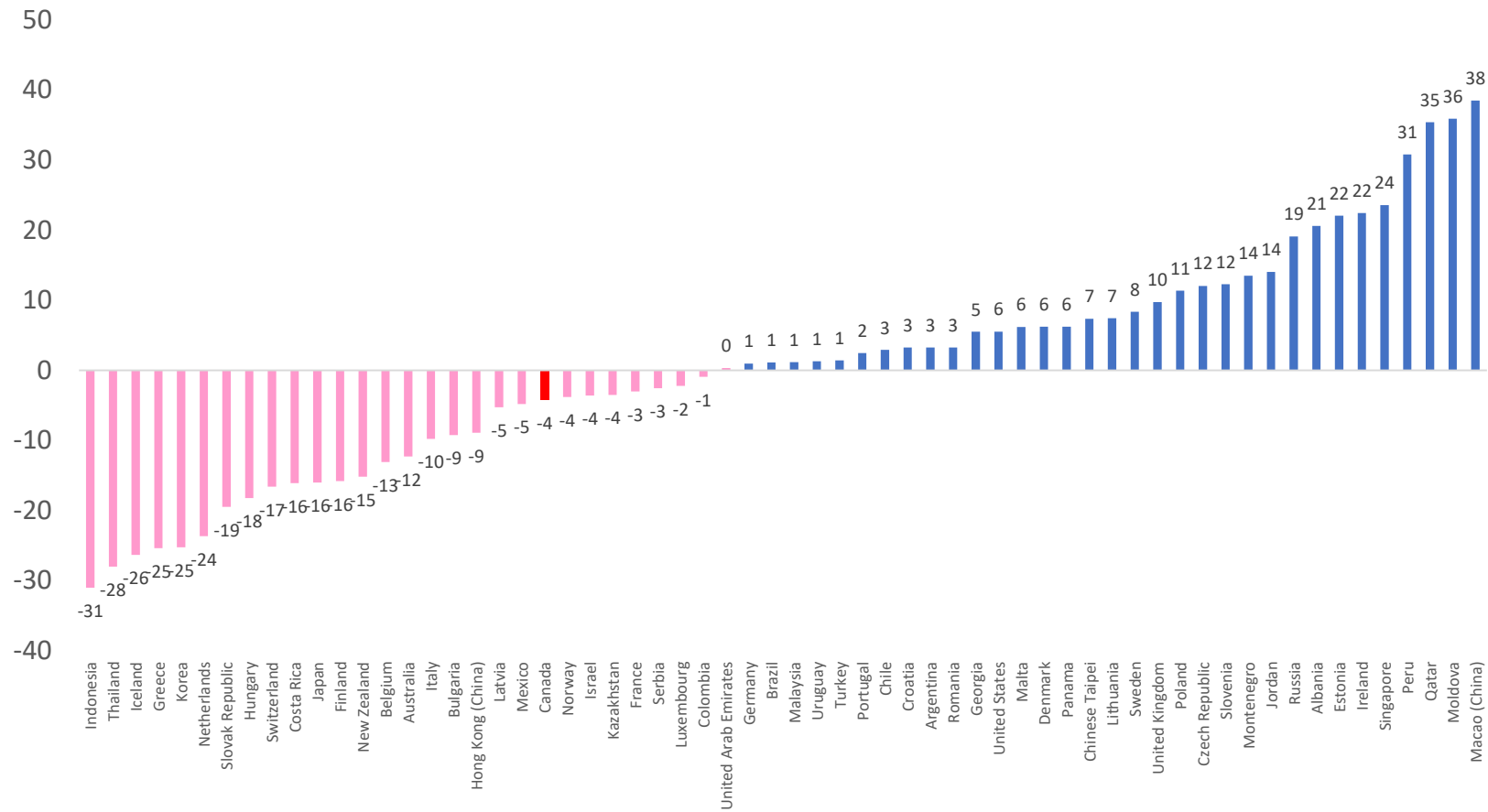


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Change in Mean Reading Scores, PISA 2009 to 2018

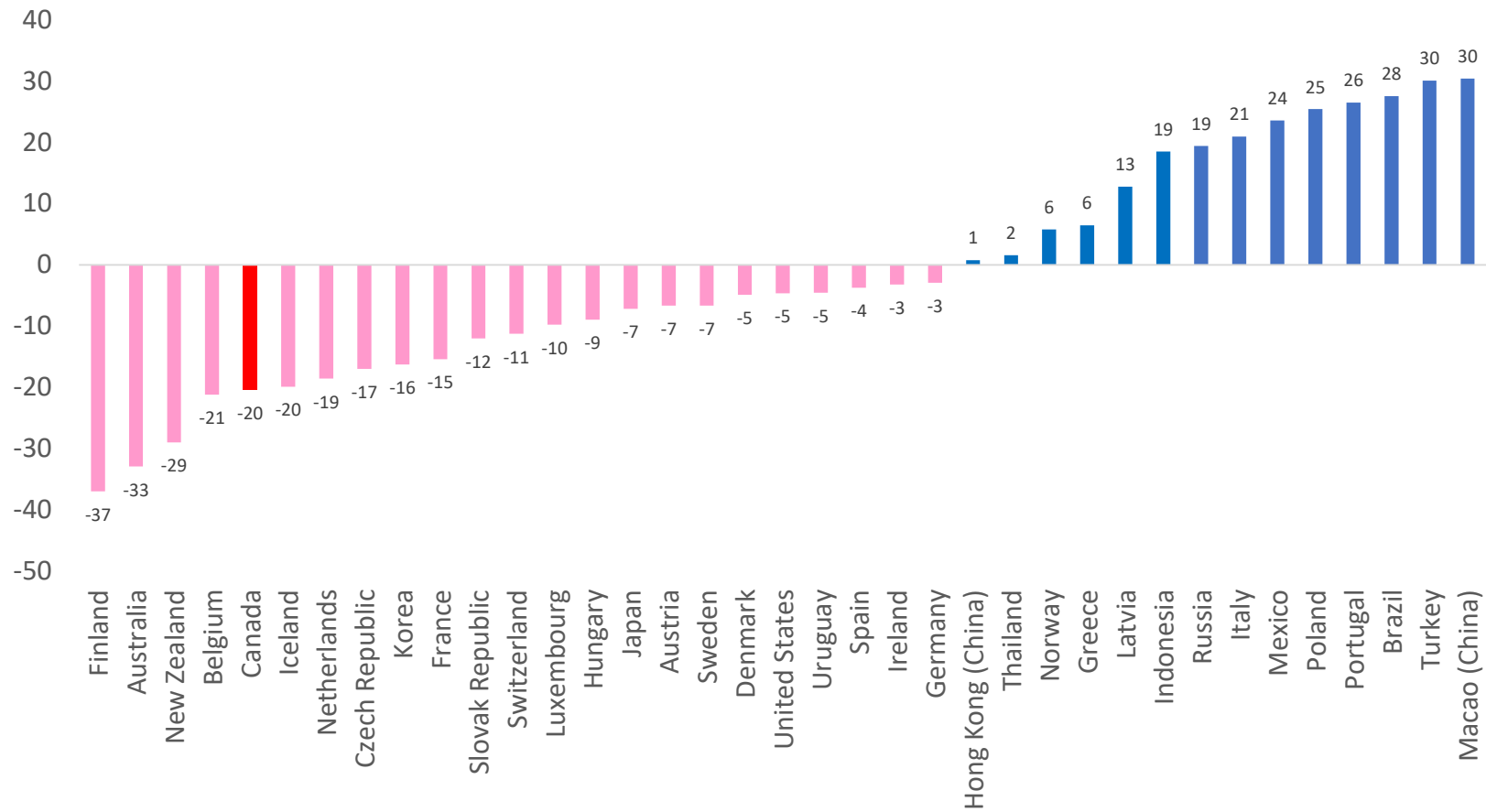


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Change in Mean Math Scores, PISA 2003 to 2018

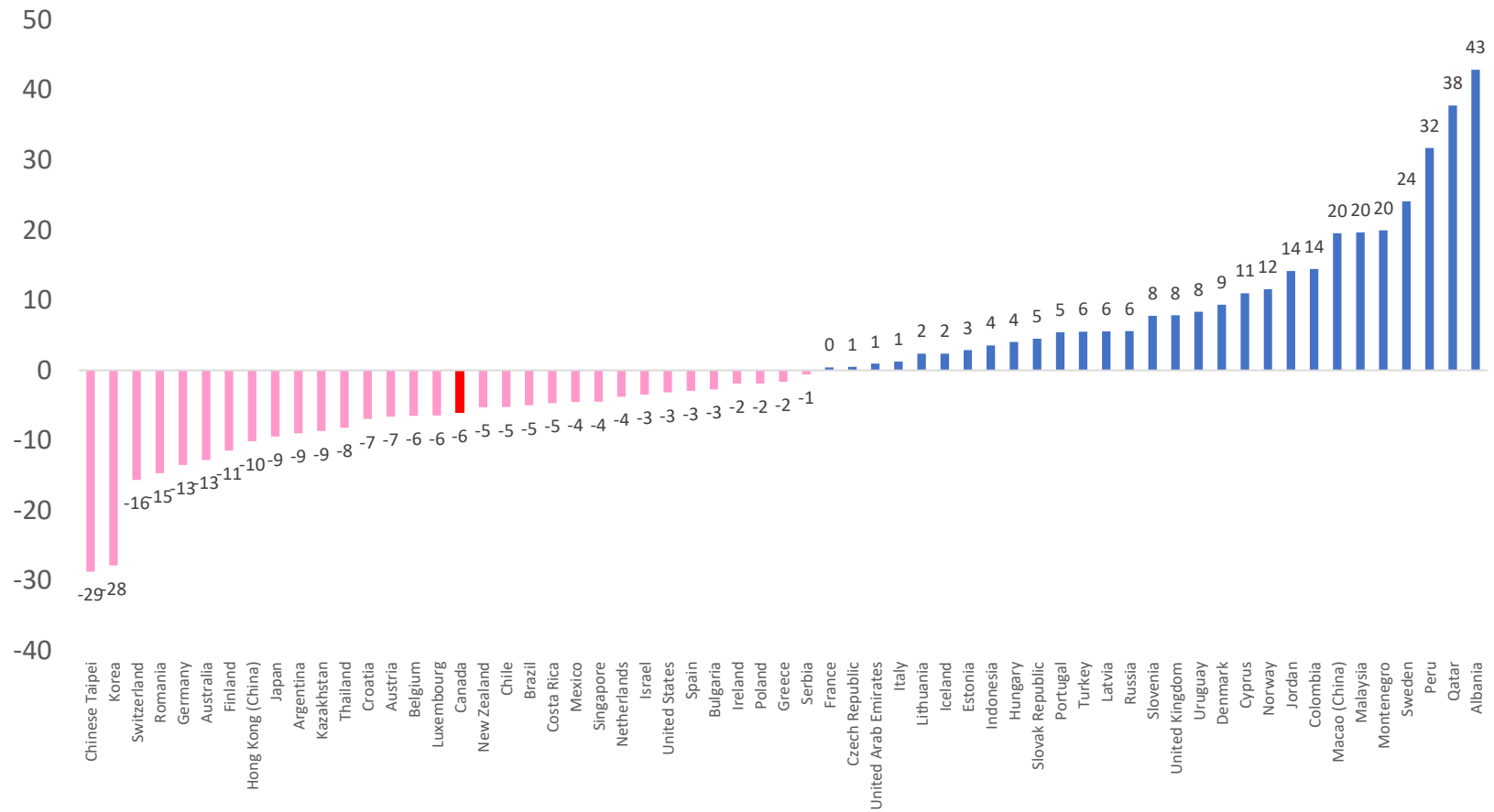


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Change in Mean Math Scores, PISA 2012 to 2018

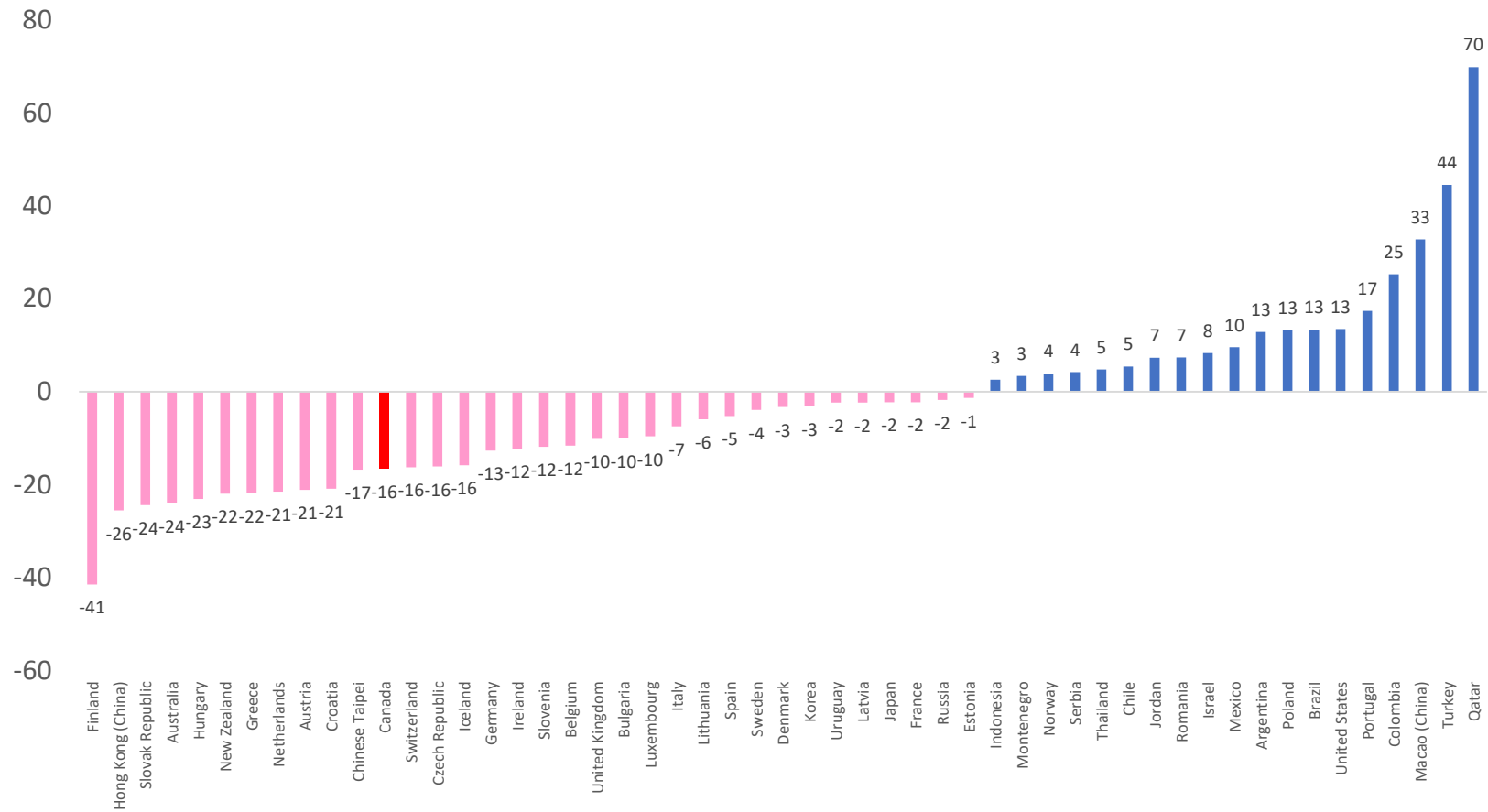


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Change in Mean Science Scores, PISA 2006 to 2018

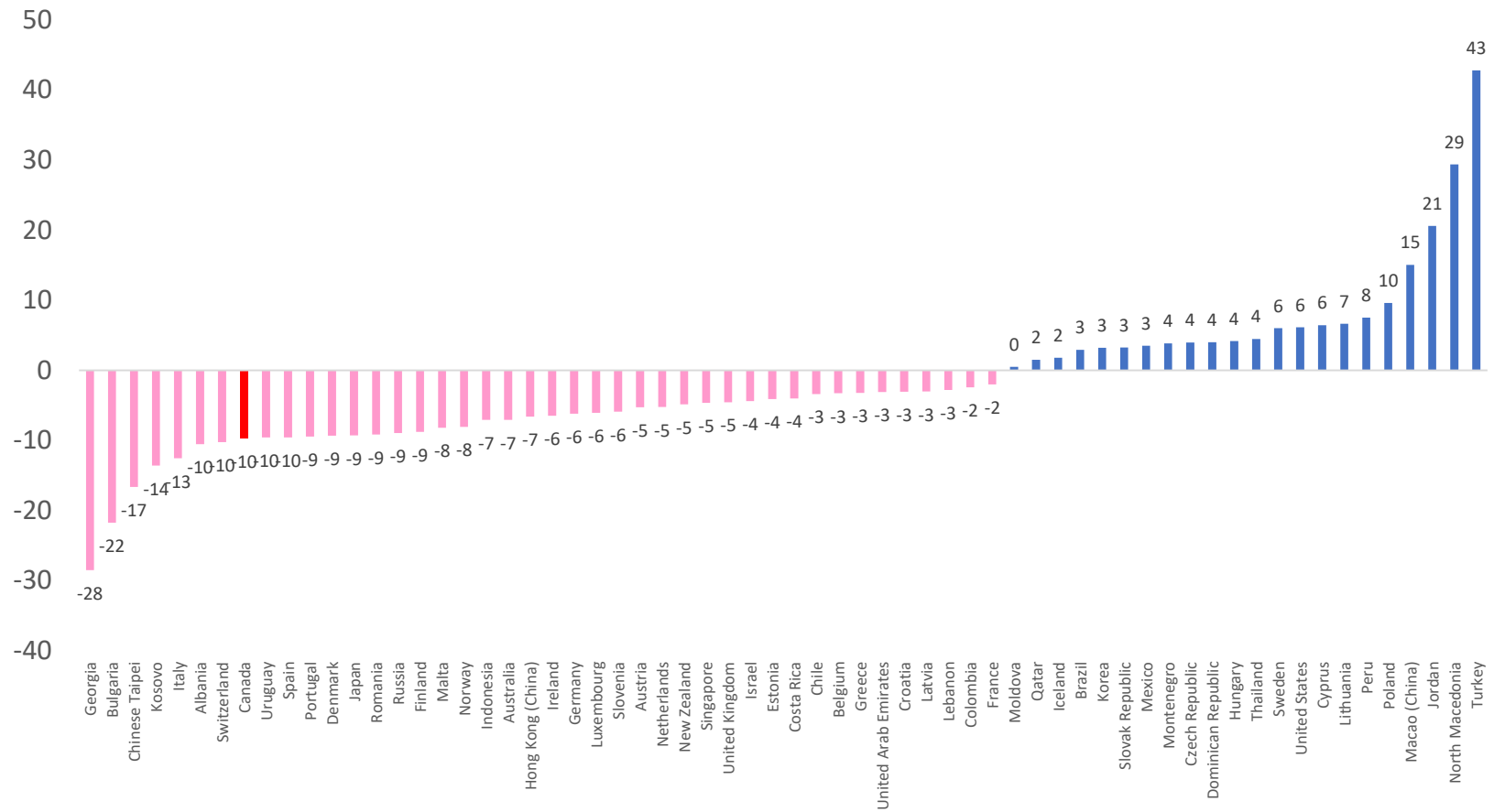


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Change in Mean Science Scores, PISA 2015 to 2018



PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Trends in PISA Mean Scores for Reading, Canada and Provinces (2000-2018)

	2000	2003	2006	2009	2012	2015	2018
Canada	534	528	527	524	523	527	520
NL	517	521	514	506	503	505	512
PEI	517	495	497	486	490	515	503
NS	521	513	505	516	508	517	516
NB	501	503	497	499	497	505	489
QU	536	525	522	522	520	532	519
ON	533	530	534	531	528	527	524
MB	529	520	516	495	495	498	494
SK	529	512	507	504	505	496	499
AB	550	543	535	533	525	533	532
BC	538	535	528	525	535	536	519

PISA 2018: Summary of results for Canada

Source: CMEC, *Measuring Up* (2019)



Trends in PISA Mean Scores for Math, Canada and Provinces (2003-2018)

	2003	2006	2009	2012	2015	2018
Canada	532	527	527	518	516	512
NL	517	507	503	490	486	488
PEI	500	501	487	479	499	487
NS	515	506	512	497	497	494
NB	512	506	504	502	493	491
QU	537	540	543	536	544	532
ON	530	526	526	514	509	513
MB	528	521	501	492	489	482
SK	516	507	506	506	484	485
AB	549	530	529	517	511	511
BC	538	523	523	522	522	504

PISA 2018: Summary of results for Canada

Source: CMEC, *Measuring Up* (2019)



Trends in PISA Mean Scores for Science, Canada and Provinces (2006-2018)

	2006	2009	2012	2015	2018
Canada	534	529	525	528	518
NL	526	518	514	506	506
PEI	509	495	490	515	502
NS	520	523	516	517	508
NB	506	501	507	506	492
QU	531	524	516	537	522
ON	537	531	527	524	519
MB	523	506	503	499	489
SK	517	513	516	496	501
AB	550	545	539	541	534
BC	539	535	544	539	517

PISA 2018: Summary of results for Canada

Source: CMEC, *Measuring Up* (2019)



Change in PISA mean scores for each subject since 2015 (positive, negative or unchanged)

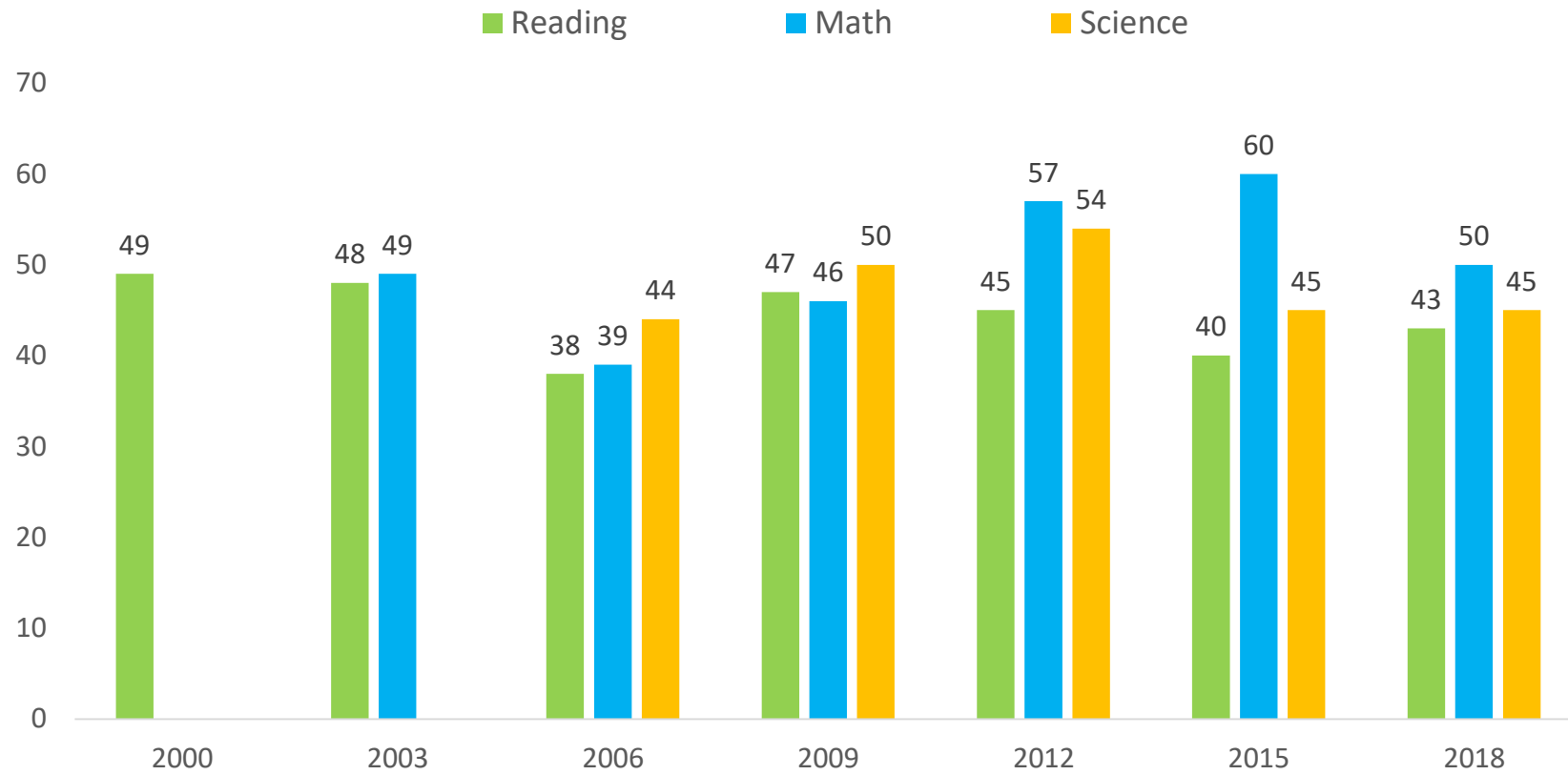
	Reading	Math	Science
Canada	-	-	-
NL	+	+	o
PEI	-	-	-
NS	-	-	-
NB	-	-	-
QU	-	-	-
ON	-	+	-
MB	-	-	-
SK	+	+	+
AB	-	o	-
BC	-	-	-

PISA 2018: Summary of results for Canada

Source: CMEC, *Measuring Up* (2019)



Difference (in points) in mean scores between highest and lowest achieving province



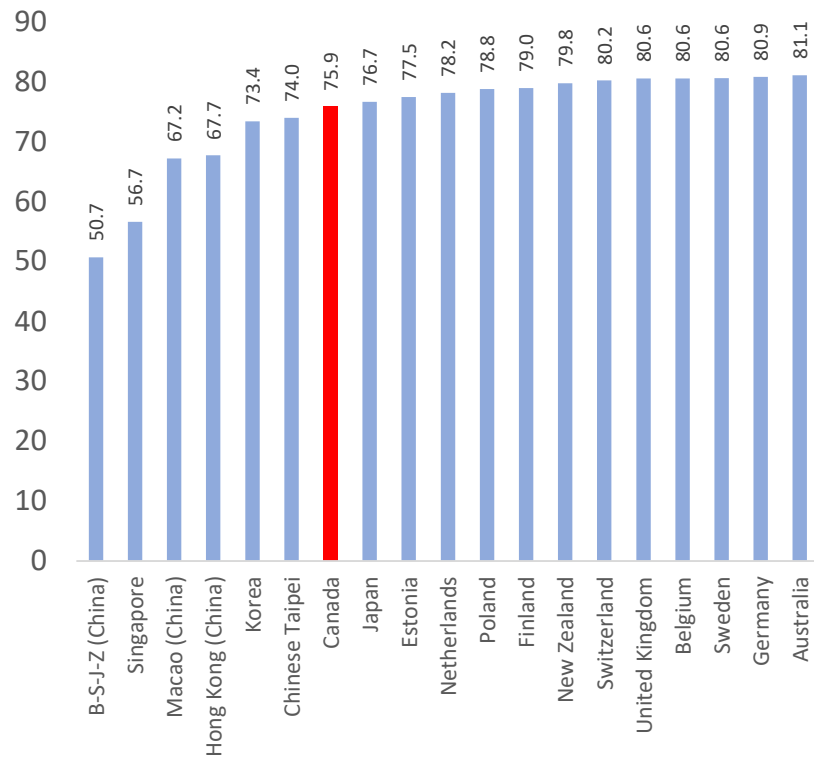
PISA 2018: Summary of results for Canada

Source: CMEC, *Measuring Up* (2019)

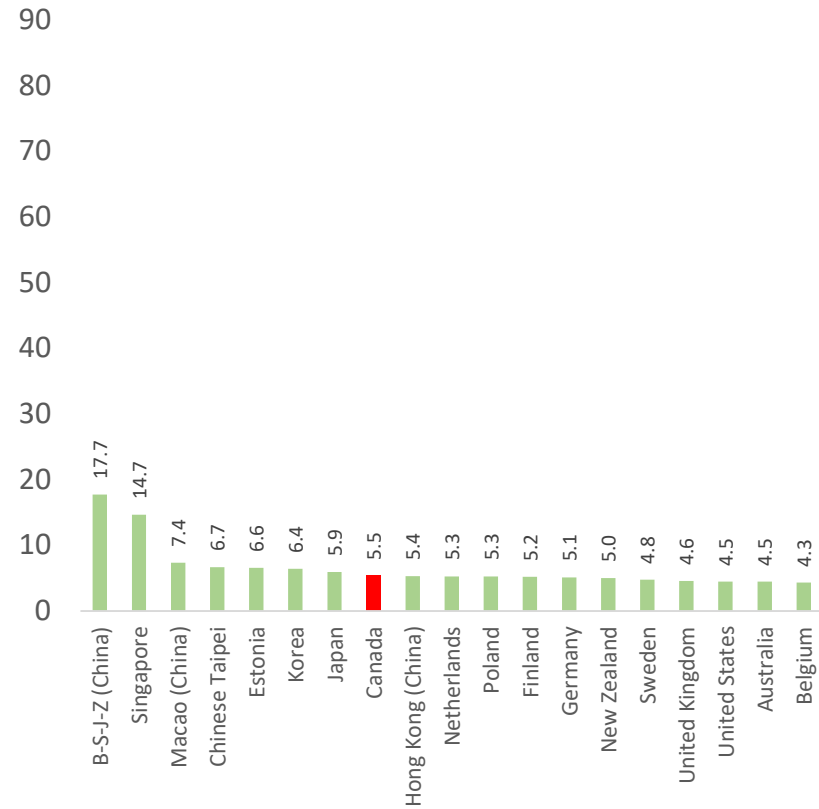


Top performers in reading, mathematics and science

Not top performers in any of the three domains



Top performers in all three domains



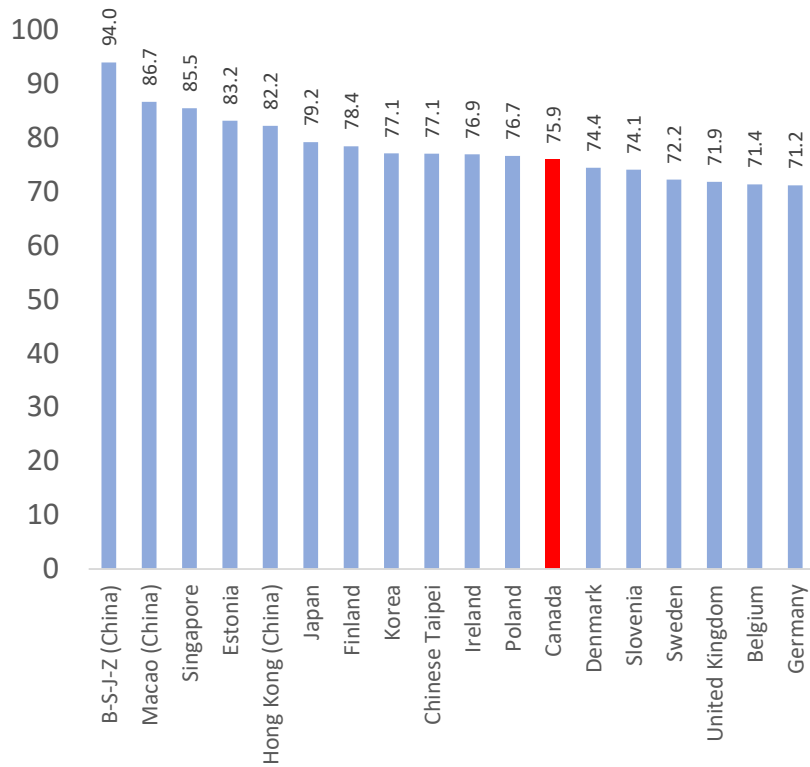
PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)

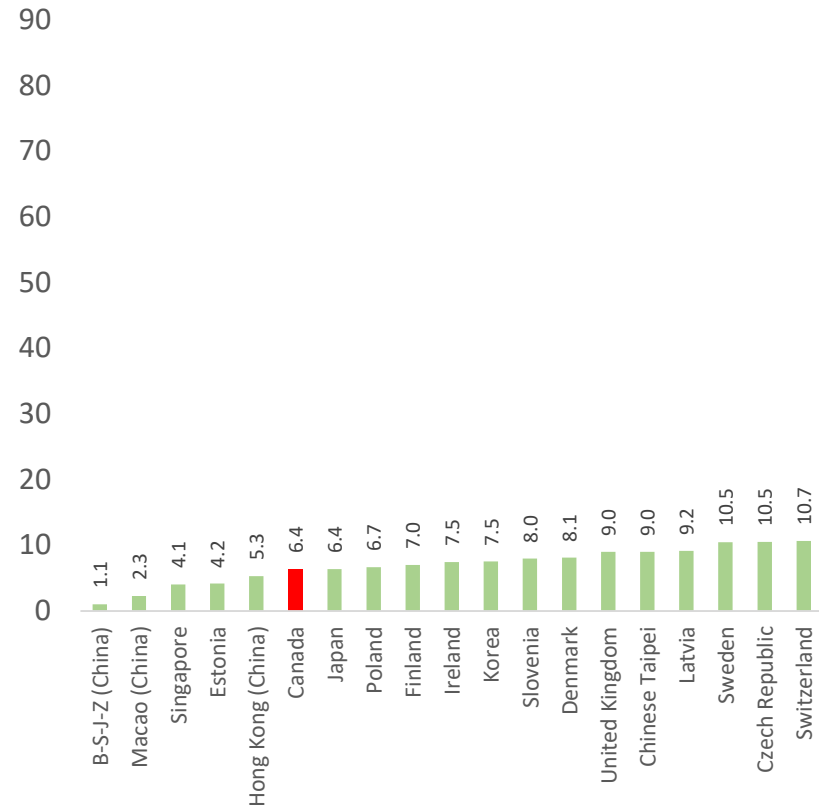


Low achievers in reading, mathematics and science

Not low achievers in any of the three domains



Low achievers in all three domains

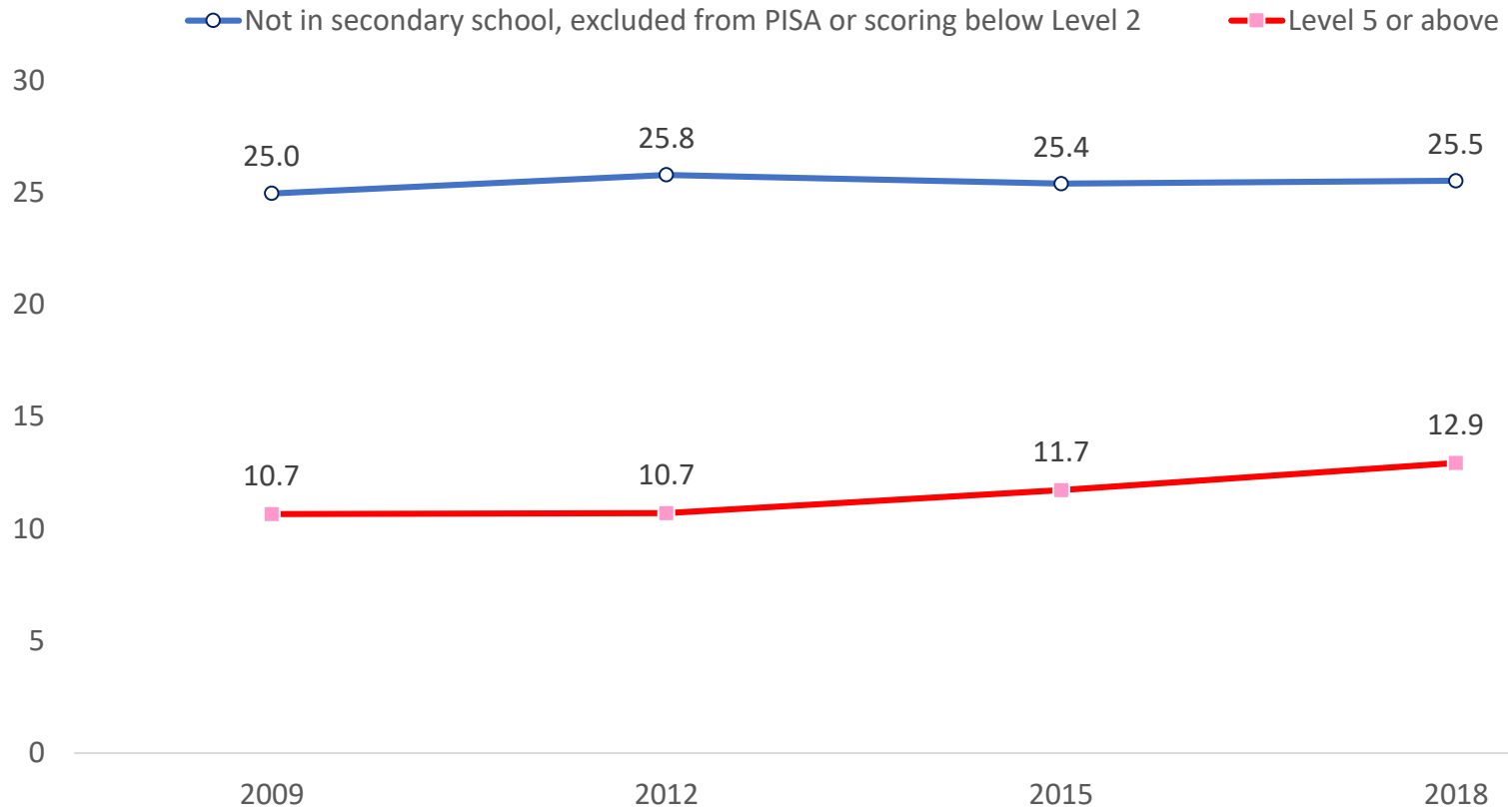


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Canada: Percentage of low achievers and top performers in reading among all 15-year-olds, 2009 through 2018

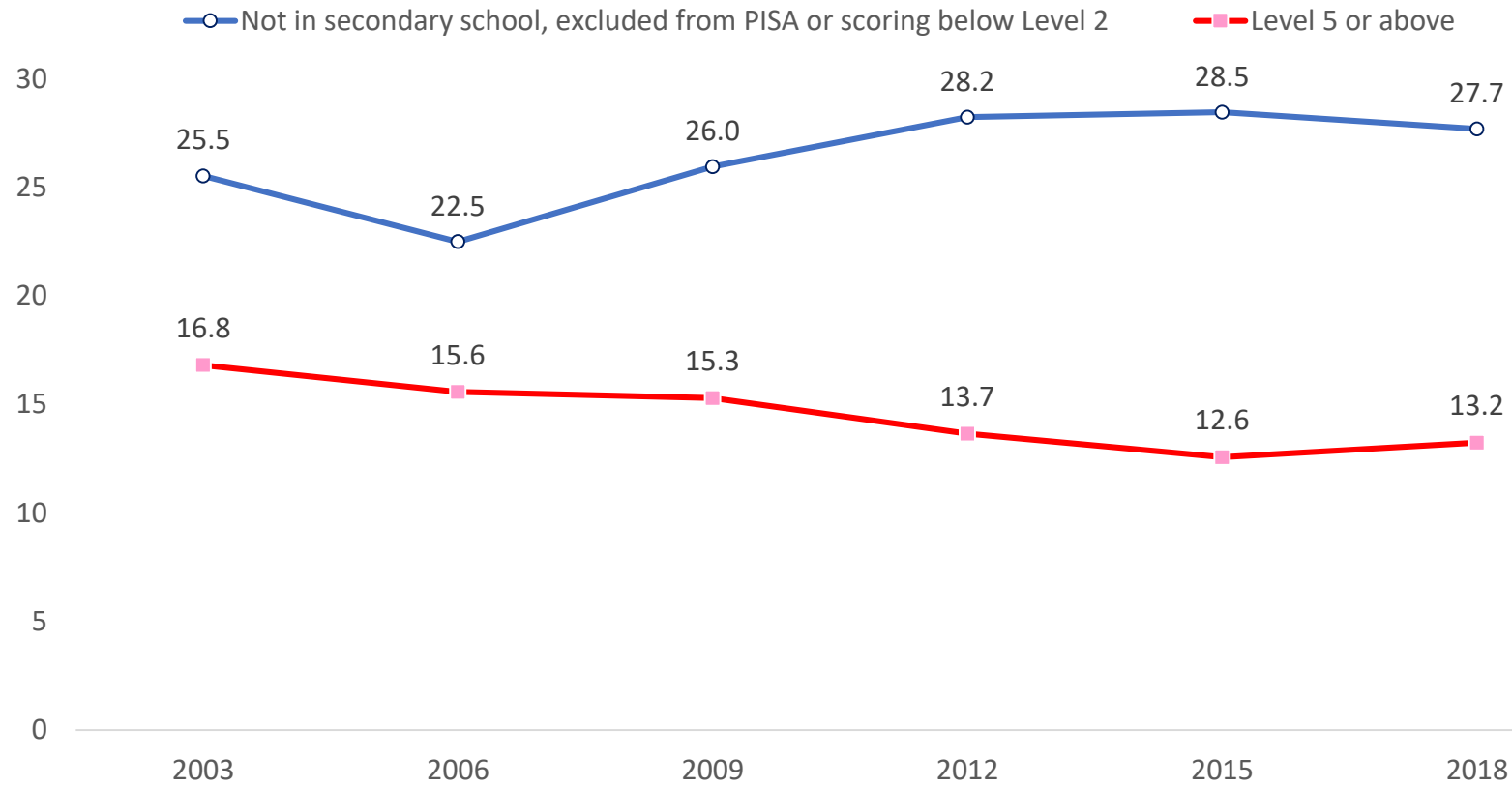


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Canada: Percentage of low achievers and top performers in mathematics among all 15-year-olds, 2003 through 2018

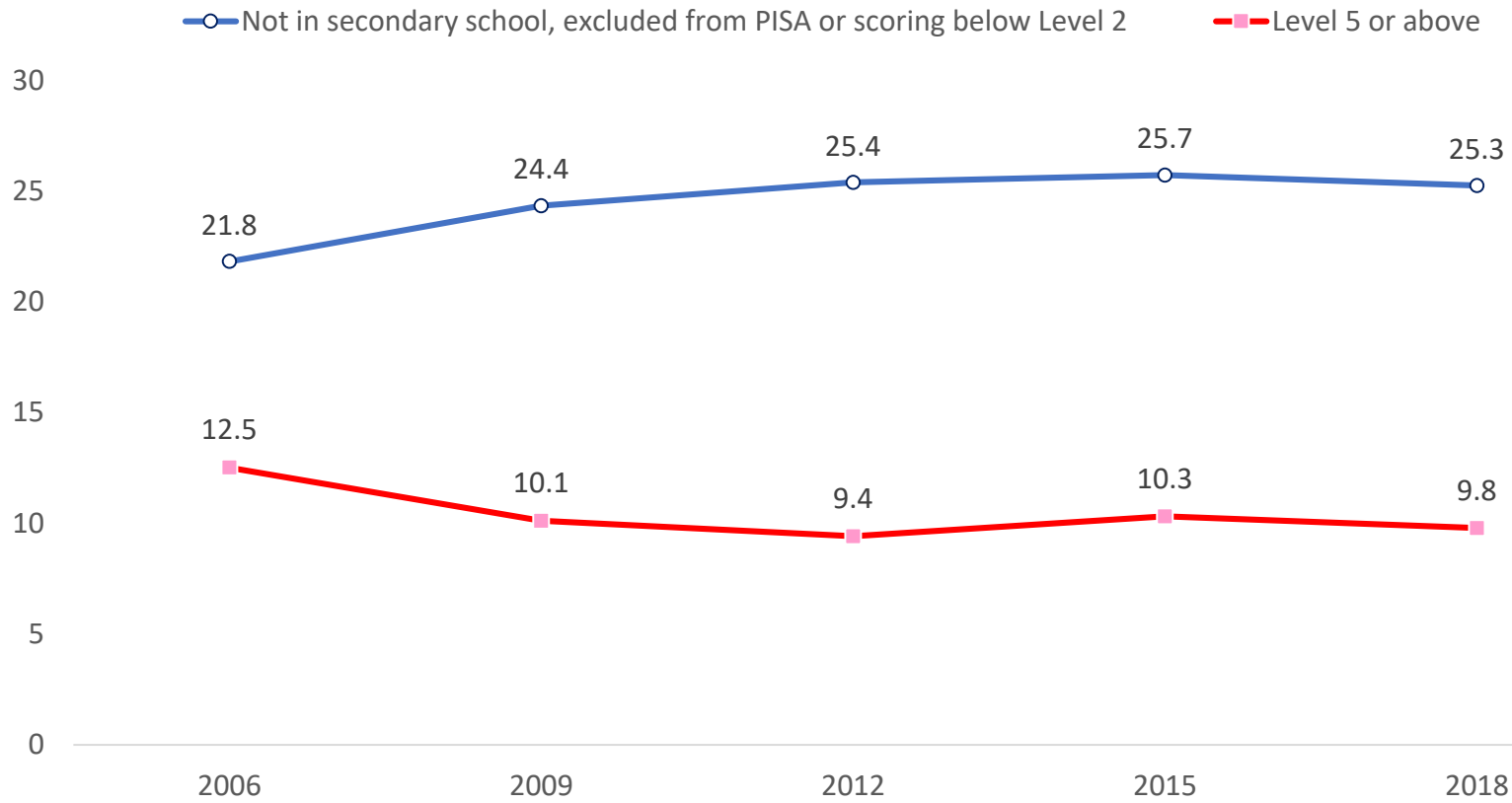


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Canada: Percentage of low achievers and top performers in science among all 15-year-olds, 2006 through 2018

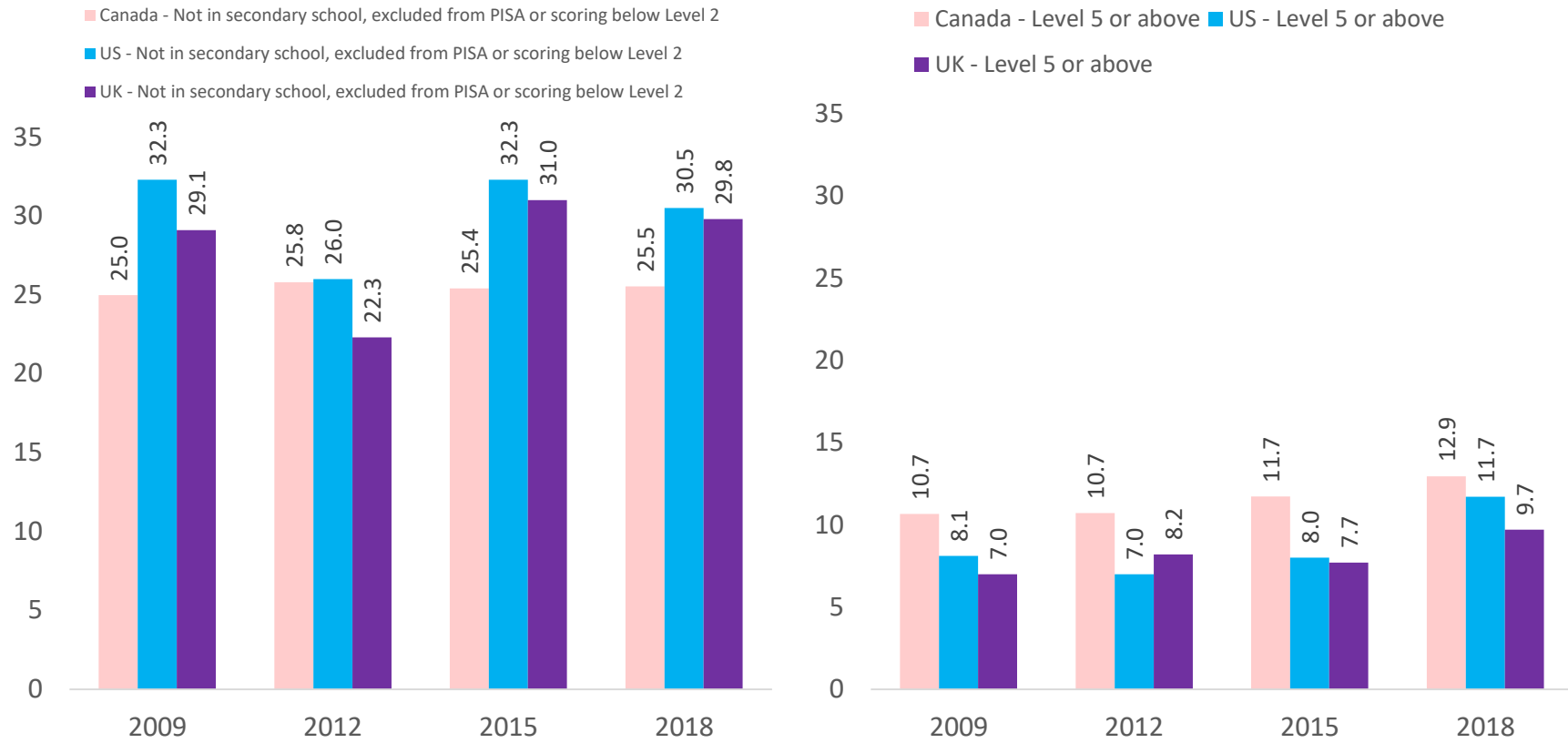


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Percentage of low achievers and top performers in reading among all 15-year-olds, 2009 through 2018: Canada, United States and U.K.

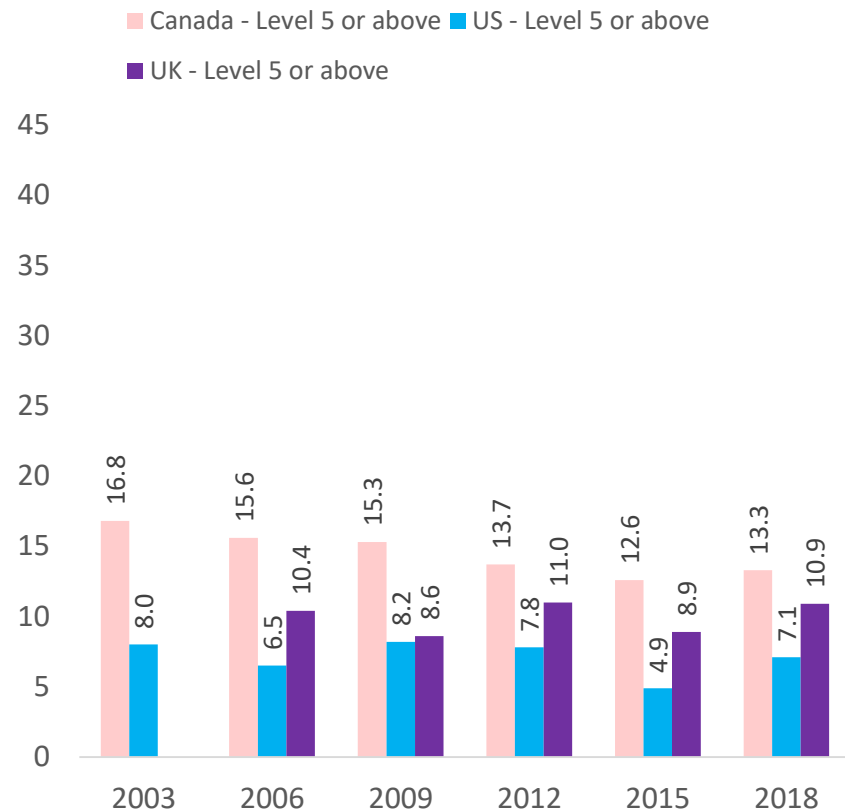
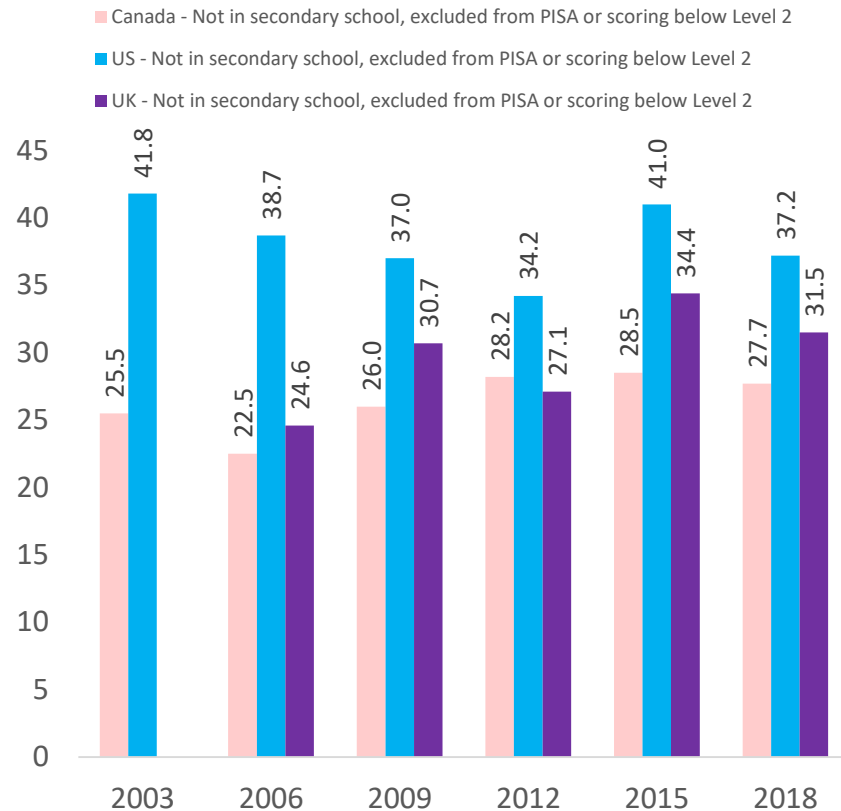


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Percentage of low achievers and top performers in mathematics among all 15-year-olds, 2003 through 2018: Canada, United States and U.K.

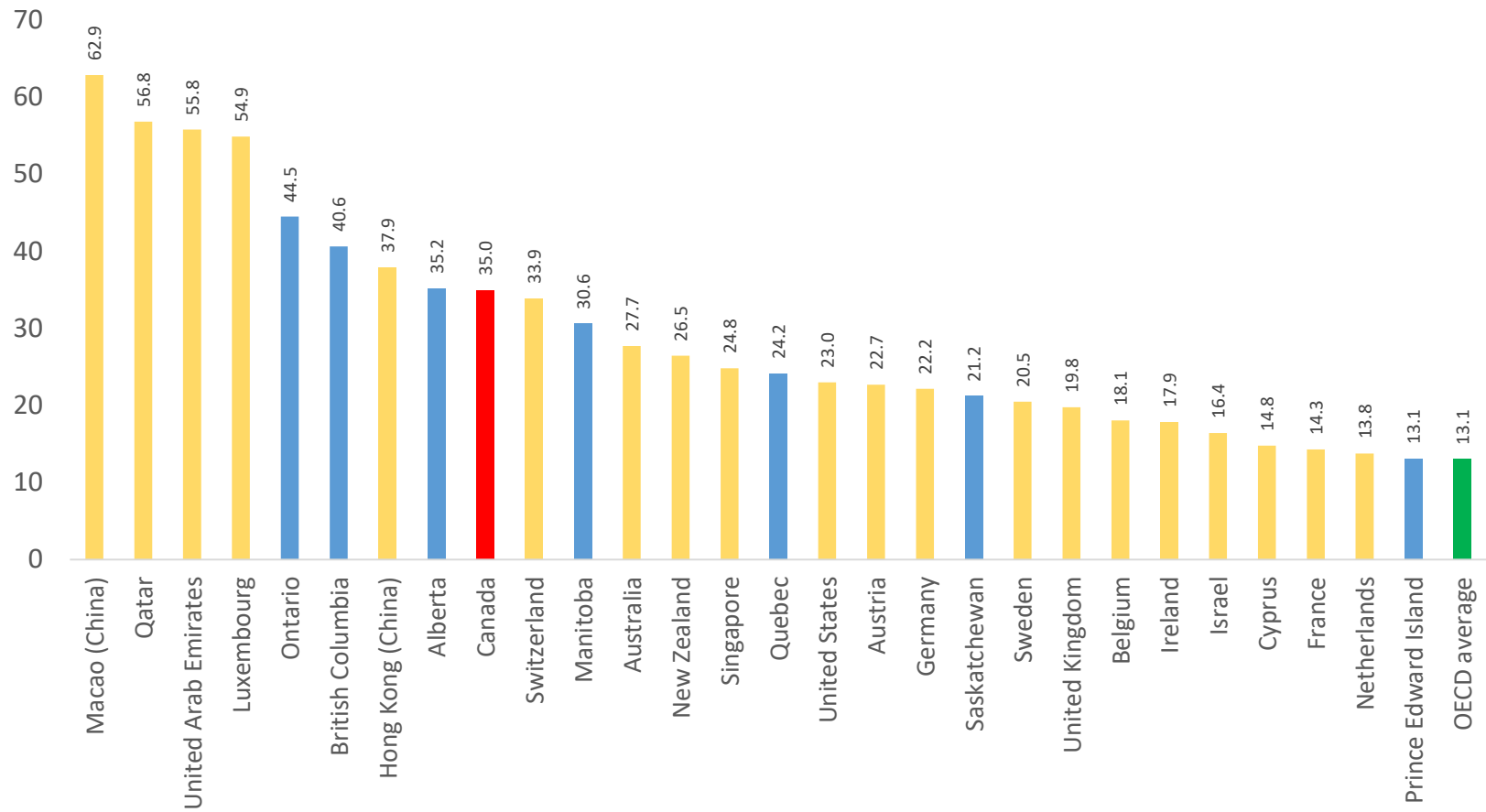


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. I)



Percentage of immigrant students (1st + 2nd generation)

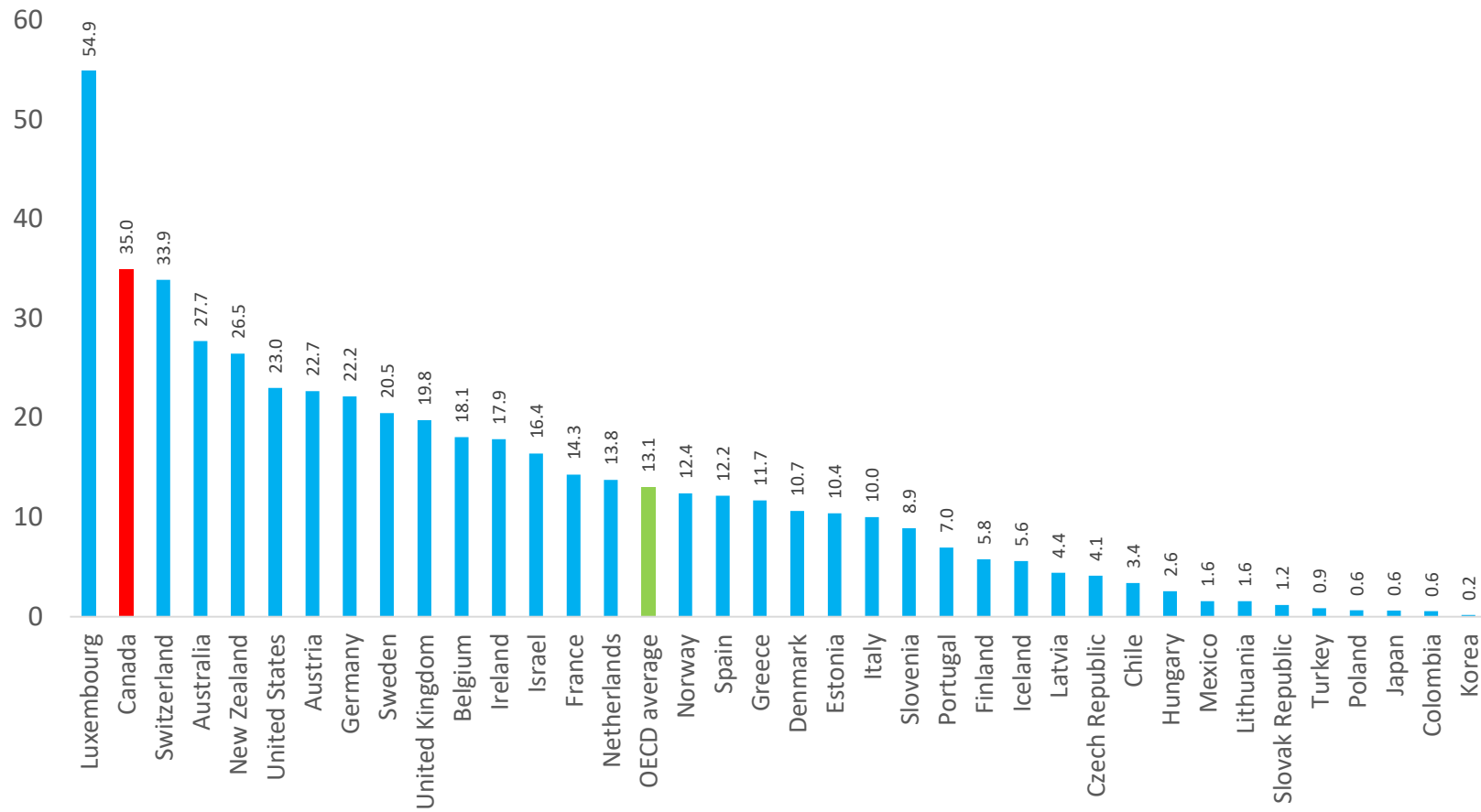


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Percentage of immigrant students (1st + 2nd generation) OECD countries

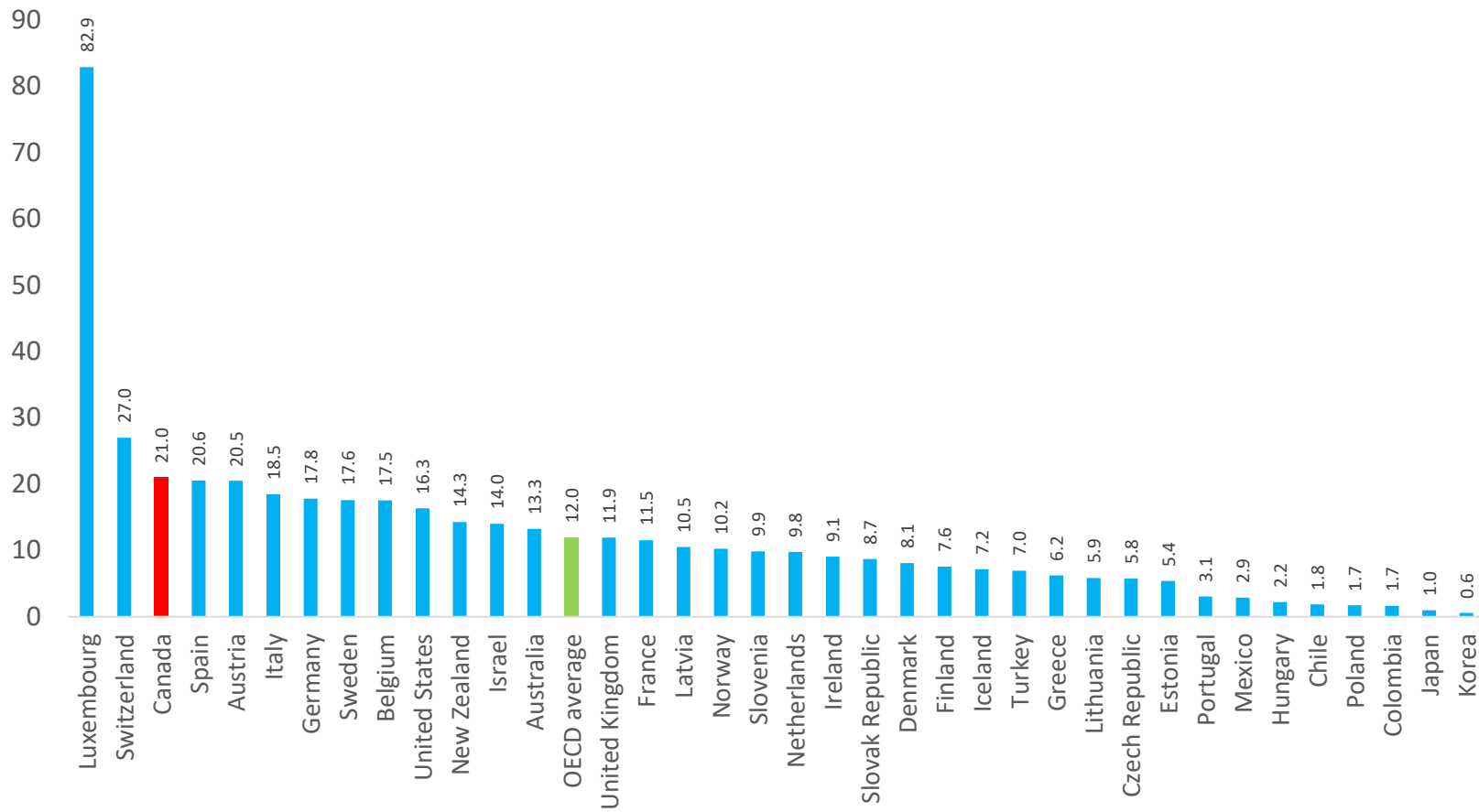


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Percentage of students who speak mainly another language (other than the language of the assessment) at home – OECD countries



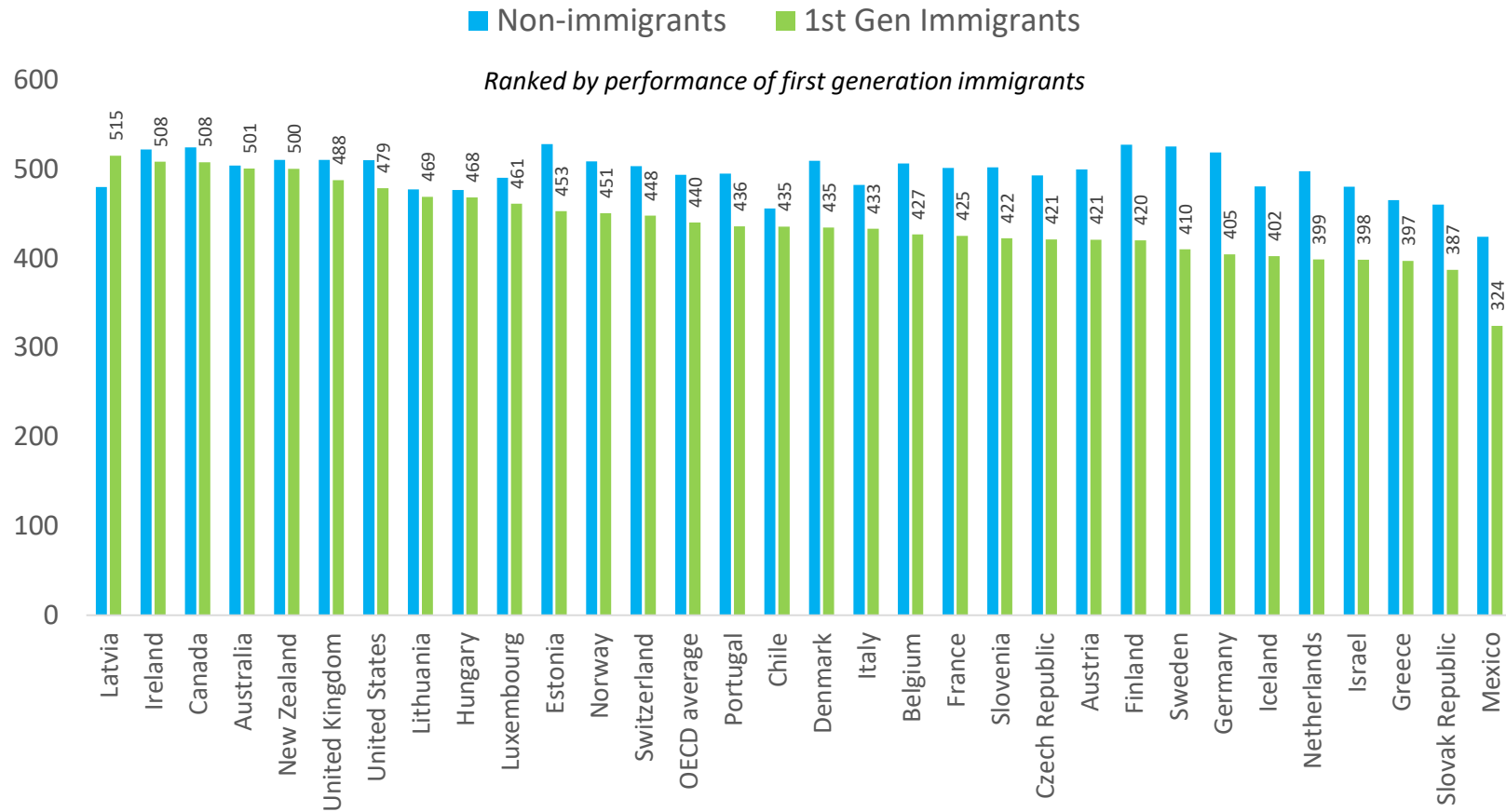
PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Mean reading performance, by immigrant background (2018)

OECD countries



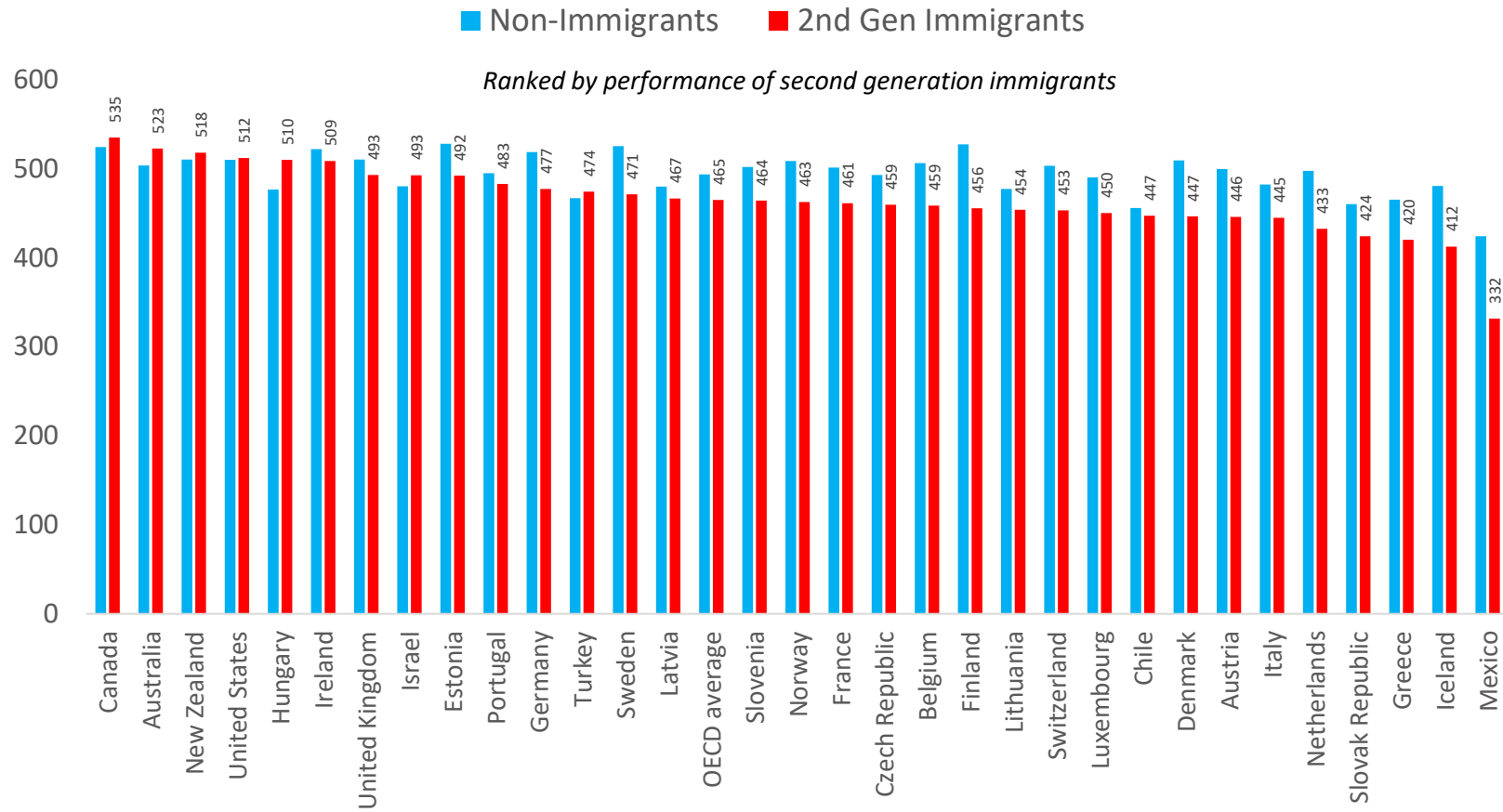
PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Mean reading performance, by immigrant background (2018)

OECD countries



PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



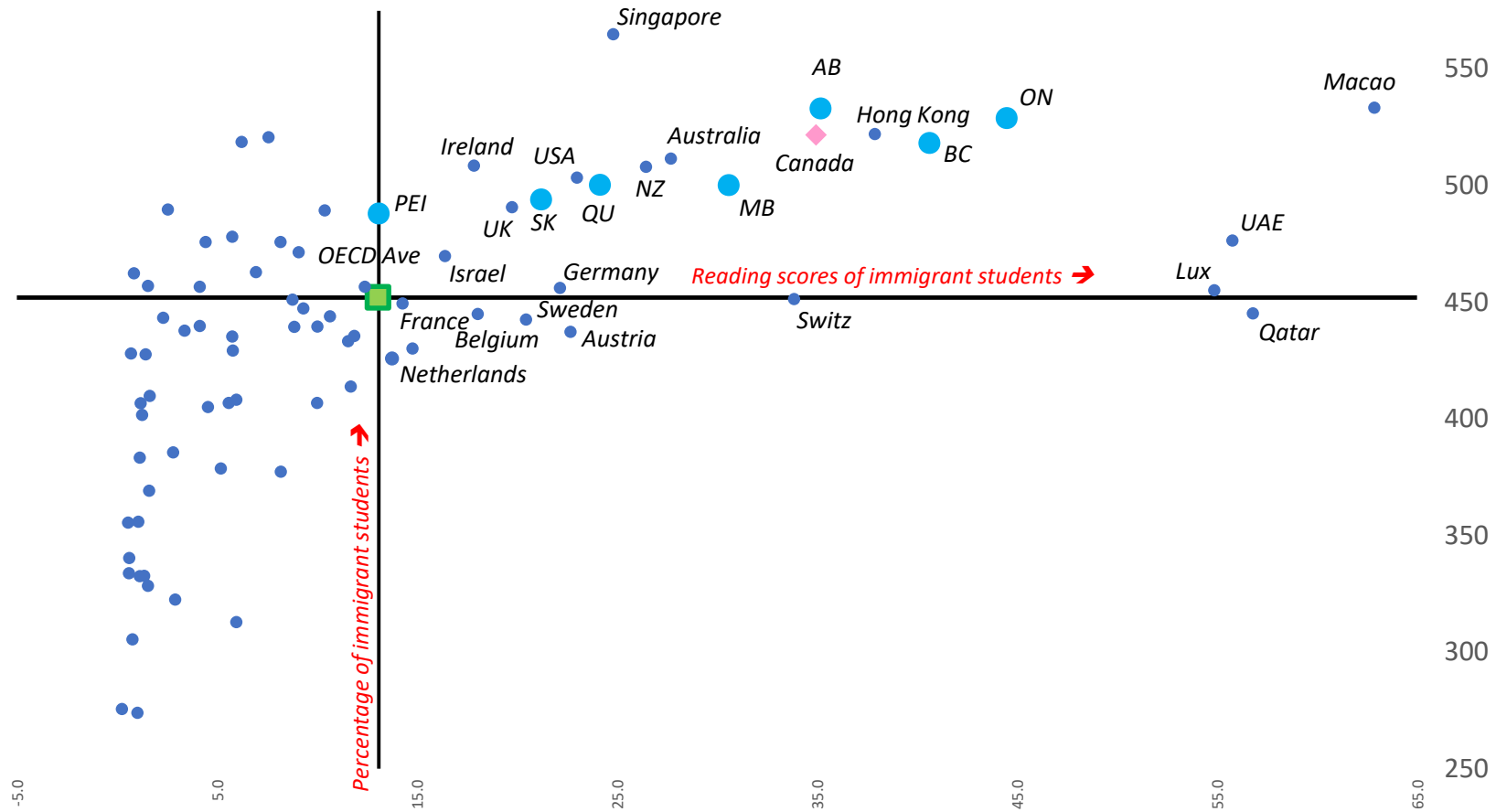
Difference in reading performance (in points), immigrants compared to non-immigrants, by immigrant background (2018)

OECD countries

Country	All immigrant background	Country	First Generation Immigrants	Country	Second Generation Immigrants
Hungary	13	Latvia	35	Hungary	33
Australia	8	Australia	-3	Australia	19
New Zealand	-2	Hungary	-8	Israel	12
Canada	-3	Lithuania	-9	Canada	11
Latvia	-4	New Zealand	-10	New Zealand	8
Turkey	-5	Ireland	-14	Turkey	7
United States	-7	Canada	-17	United States	2
Israel	-11	Chile	-21	Chile	-9
Ireland	-14	United Kingdom	-23	Portugal	-12
Chile	-18	Luxembourg	-29	Ireland	-13
United Kingdom	-20	United States	-31	Latvia	-13
Lithuania	-21	Italy	-49	United Kingdom	-18
Portugal	-32	OECD average	-54	Lithuania	-24
Luxembourg	-35	Switzerland	-56	OECD average	-29
Estonia	-39	Norway	-58	Czech Republic	-34
OECD average	-41	Portugal*	-60	Slovak Republic	-36
Italy	-43	Greece	-68	Estonia	-36
Greece	-51	Czech Republic	-72	Italy	-37
Switzerland	-52	Slovak Republic	-73	Slovenia	-38
Norway	-52	Denmark	-75	France	-40
France	-52	Estonia	-75	Luxembourg	-40
Czech Republic	-53	France	-76	Germany	-42
Slovak Republic	-53	Iceland	-78	Greece	-45
Colombia	-59	Austria	-79	Norway	-46
Belgium	-61	Belgium	-80	Belgium	-48
Austria	-63	Slovenia	-80	Switzerland	-50
Slovenia	-63	Israel	-82	Austria	-54
Germany	-63	Netherlands	-99	Sweden	-54
Denmark	-65	Mexico	-100	Denmark	-63
Netherlands	-72	Finland	-107	Netherlands	-65
Iceland	-74	Germany	-114	Iceland	-68
Sweden	-83	Sweden	-115	Finland	-72
Finland	-92			Mexico	-92
Mexico	-96				



Mean reading performance of immigrant students & percentage of immigrant students (2018) -- including Canadian provinces



PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



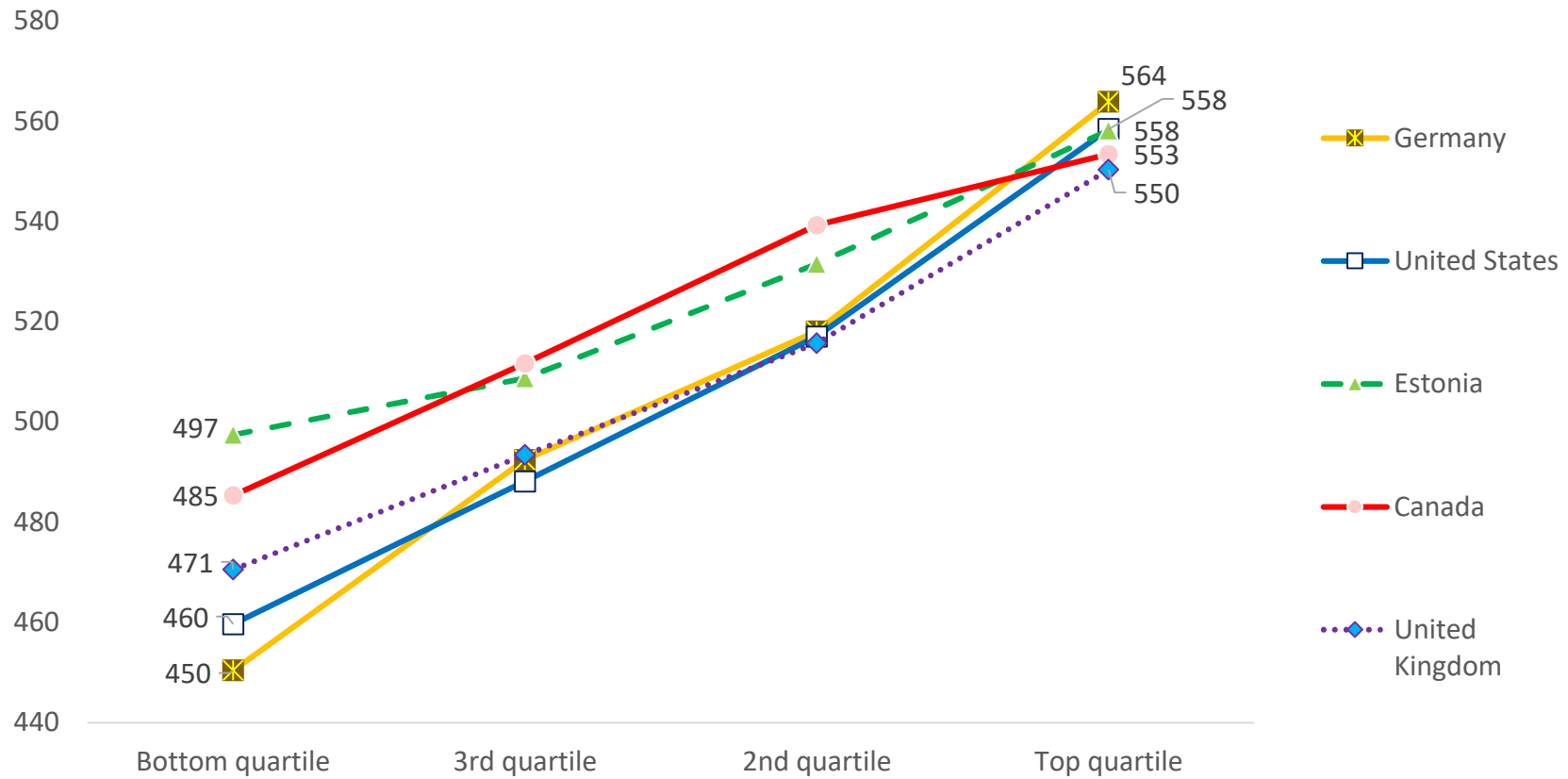
Reading performance, by national quarter of ESCS – OECD countries (*ESCS refers to the PISA index of economic, social and cultural status*)

Bottom quartile		3 rd quartile		2 nd quartile		Top quartile	
Estonia	497	Canada	512	Canada	539	Germany	564
Canada	485	Ireland	511	Finland	533	Finland	562
Finland	483	Finland	509	Estonia	532	Poland	560
Ireland	482	Estonia	509	Ireland	527	United States	558
Korea	477	Poland	504	Sweden	526	Estonia	558
United Kingdom	471	Korea	503	Korea	525	New Zealand	558
Poland	469	Sweden	501	New Zealand	525	Ireland	557
Japan	465	Japan	499	Norway	520	Canada	553
Denmark	462	Norway	496	Australia	519	Korea	552
Slovenia	462	United Kingdom	493	Germany	518	United Kingdom	550
New Zealand	462	Denmark	493	Poland	518	France	550
Australia	460	Germany	492	United States	517	Belgium	550
Sweden	460	Australia	490	Japan	517	Australia	549
United States	460	New Zealand	490	United Kingdom	516	Sweden	549
Norway	459	United States	488	Denmark	514	Czech Republic	544
Germany	450	Czech Republic	481	Belgium	512	Portugal	543
Portugal	448	Portugal	480	France	509	Slovenia	541
Netherlands	448	Belgium	476	Israel	507	Denmark	540
Latvia	447	OECD average	476	Slovenia	506	Switzerland	539
OECD average	445	Slovenia	476	Portugal	501	Luxembourg	537
France	443	Austria	475	OECD average	500	Japan	537
Belgium	440	France	474	Switzerland	499	Netherlands	536
Austria	440	Italy	474	Czech Republic	498	Hungary	534
Czech Republic	439	Netherlands	470	Austria	496	OECD average	534
Iceland	437	Latvia	470	Iceland	495	Austria	533
Turkey	437	Switzerland	469	Netherlands	495	Norway	532
Italy	436	Lithuania	465	Latvia	490	Israel	529
Switzerland	435	Iceland	463	Hungary	489	Lithuania	522
Lithuania	432	Hungary	463	Lithuania	488	Turkey	513
Hungary	420	Israel	455	Luxembourg	488	Latvia	512
Greece	417	Turkey	452	Italy	487	Italy	511
Luxembourg	415	Slovak Republic	449	Greece	468	Slovak Republic	511
Chile	415	Luxembourg	445	Slovak Republic	468	Iceland	510
Israel	407	Greece	444	Turkey	461	Chile	502
Slovak Republic	404	Chile	443	Chile	455	Greece	502
Mexico	382	Mexico	413	Mexico	426	Mexico	464
Colombia	373	Colombia	398	Colombia	419	Colombia	459



Reading performance, by national quarter of ESCS – selected countries

(ESCS refers to the PISA index of economic, social and cultural status)

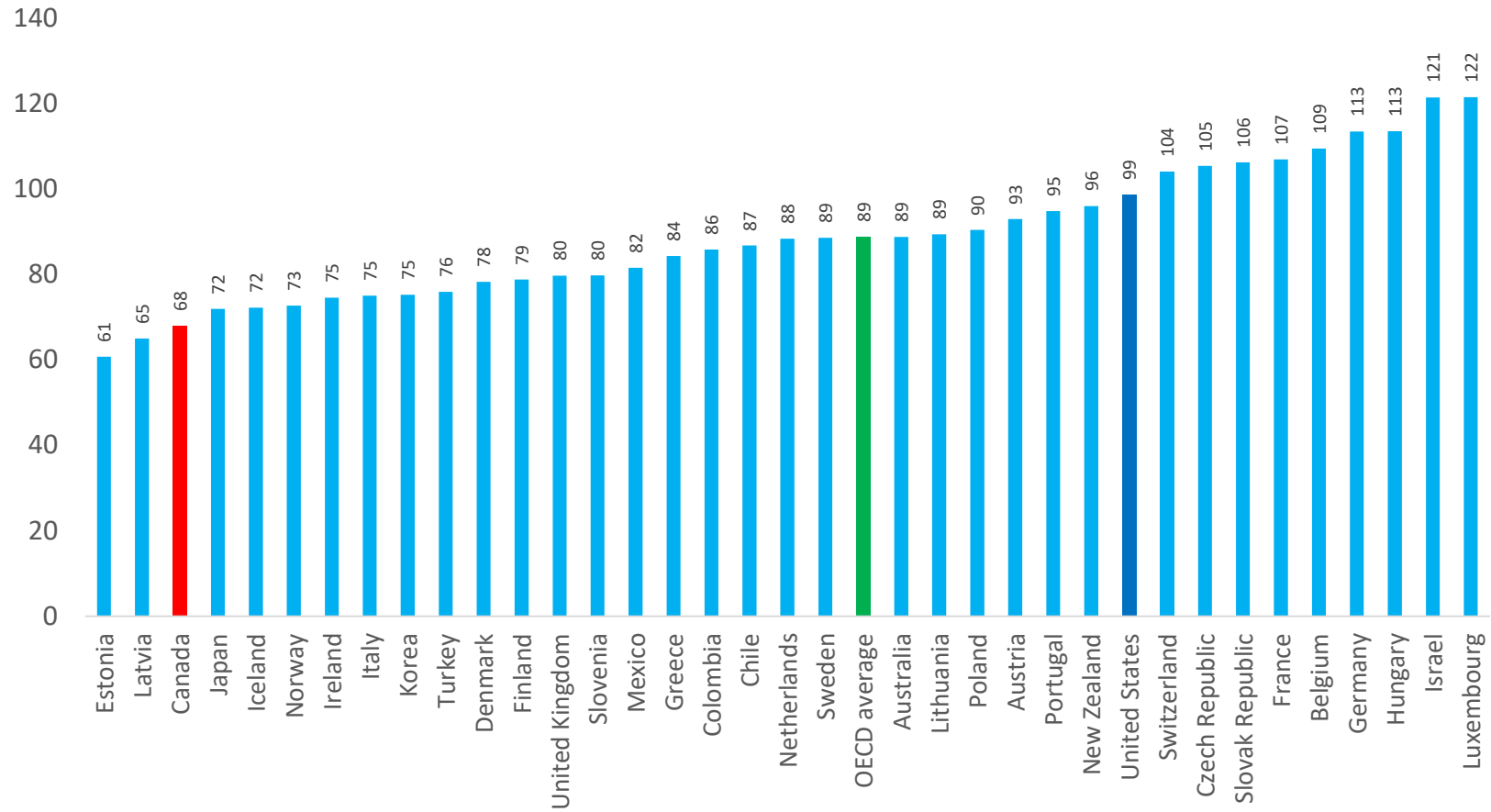


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Reading score difference (in points) between top and bottom ESCS quartiles (ESCS refers to the PISA index of economic, social and cultural status)

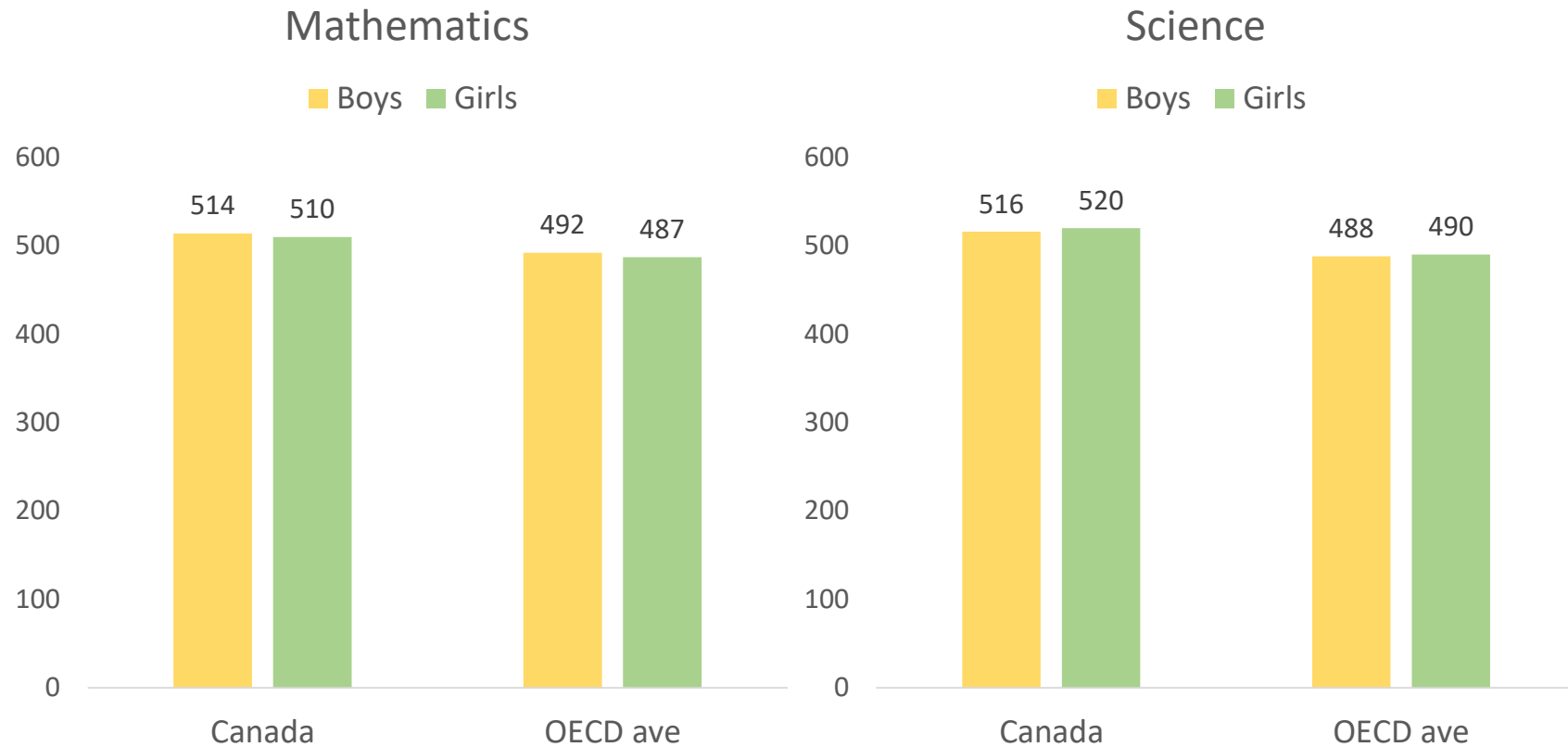


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Performance by gender

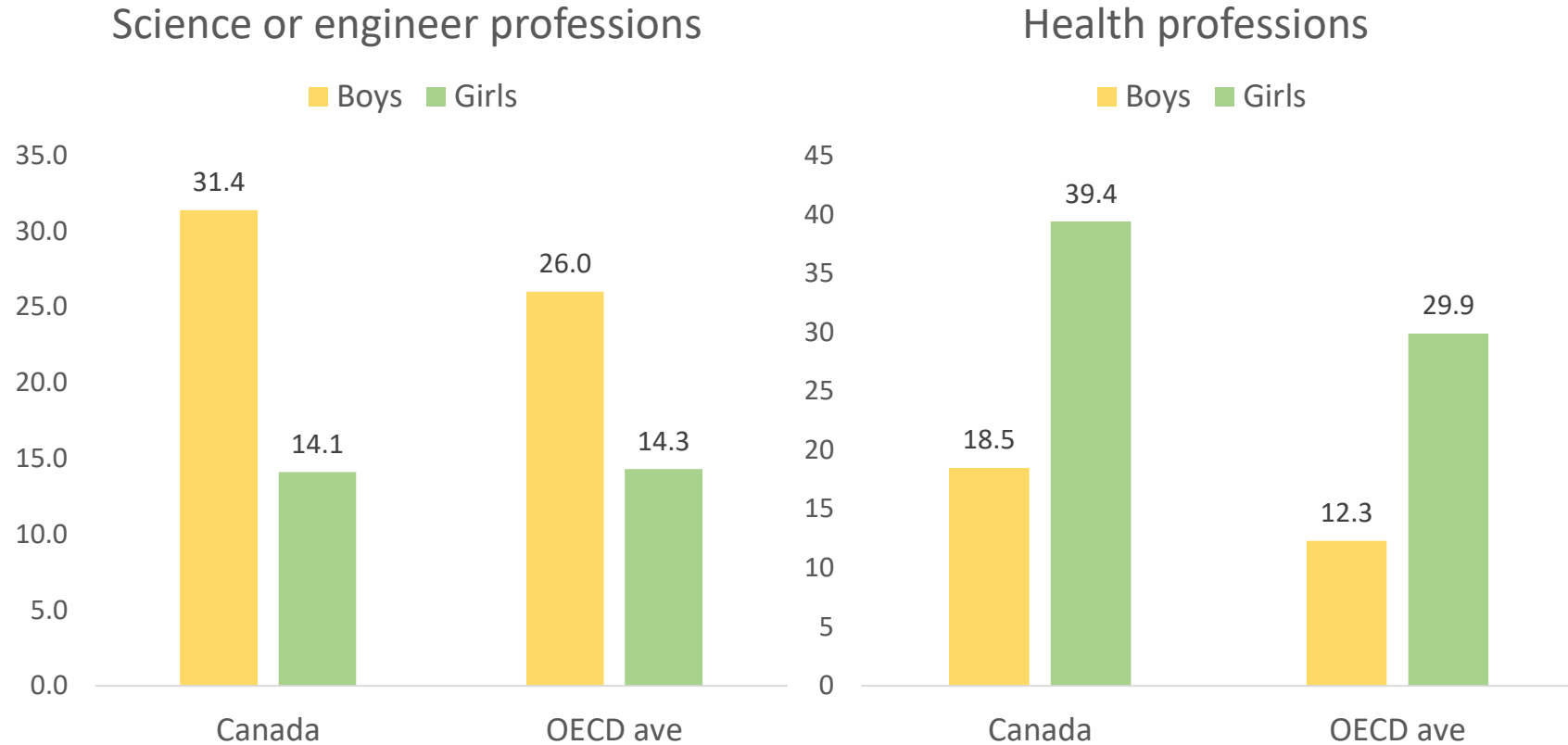


PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Expectation among top performing students (in science or math) to work as science-related professional, by gender



PISA 2018: Summary of results for Canada

Source: OECD, PISA 2018 Results (Vol. II)



Thank you

Environics Institute

For Survey Research

andrew.parkin@environics.ca

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