

The Quality of the Catalan and Spanish Education Systems: A Perspective from PISA

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Appendix

Columns for tables A1-A6

Models (standard errors on a side column):

M 1: Unconditional means

M 2: Schooling controls (Father 1/ Mother 1: No degree Father/Mother, Father 2 / Mother 2: Primary school, Father 3 / Mother 3 : Basic secondary school, Father 4 / Mother 4: College. Omitted group: advanced secondary education).

M 3: Schooling and immigration controls (Group 1: Students born abroad with at least one parent born abroad, Group 2: Students born in the country with at least one parent born abroad. Omitted group: Students with native parents. Other language: other language spoken at home).

M 4: Schooling and immigration controls, with control for students attending schools with more than 10% immigration (Group 1: Students born abroad with at least one parent born abroad, Group 2: Students born in the country with at least one parent born abroad. Omitted group: Students with native parents. Other language: other language spoken at home. Imm (10%): the student attends a school with more than 10% immigrant students).

Table A1: Individual regressions with coefficients restricted to be equal: Europe - Science

Variable Names	M 1	SE M 1	M 2	SE M 2	M 3	SE M 3	M 4	SE M 4
Austria	510.8	3.9	508.5	3.6	515.0	3.4	520.8	3.6
Belgium	510.4	2.5	515.7	2.4	520.5	2.4	524.9	2.6
Czech Republic	512.9	3.4	512.6	3.4	513.9	3.3	514.8	3.4
Denmark	495.9	3.0	495.5	2.7	498.1	2.7	500.3	2.8
Estonia	531.4	2.5	525.8	2.5	528.7	2.5	528.1	2.5
Finland	563.3	1.9	557.2	2.1	556.8	2.1	557.4	2.1
France	495.2	3.3	511.3	3.0	515.5	3.1	517.4	3.2
Germany	515.6	3.8	525.8	2.9	530.7	2.7	536.3	2.7
Greece	473.4	3.1	481.7	2.9	485.2	2.8	489.6	3.1
Hungary	503.9	2.6	505.5	2.3	505.7	2.3	506.1	2.4
Ireland	508.3	3.1	515.6	2.6	519.7	2.6	527.8	2.8
Italy	475.4	2.0	492.4	2.2	493.8	2.1	495.7	2.1
Latvia	489.5	2.9	484.8	2.8	487.6	2.8	486.6	2.9
Lithuania	488.0	2.7	480.2	2.8	480.7	2.8	481.0	2.7
Luxembourg	486.3	0.9	504.9	1.5	520.2	2.1	537.7	3.1
Netherlands	524.9	2.7	530.5	2.3	533.9	2.2	535.4	2.2
Portugal	474.3	2.9	523.1	2.7	521.5	2.6	523.6	2.6
Romania	418.4	4.2	415.9	4.0	414.8	4.0	414.4	4.0
Slovak Republic	488.4	2.5	487.4	2.5	487.8	2.5	487.4	2.5
Slovenia	518.8	1.0	521.0	1.3	524.8	1.4	525.1	1.3
Spain	488.4	2.5	515.3	2.0	516.3	1.9	520.9	2.0
Sweden	503.3	2.3	503.1	2.2	507.4	2.2	511.5	2.5
United Kingdom	514.8	2.2	523.8	2.1	526.9	2.1	529.4	2.3
Father 1	.	.	-42.9	2.9	-40.1	2.9	-38.9	2.8
Father 2	.	.	-26.4	1.8	-25.6	1.8	-25.1	1.8
Father 3	.	.	-19.9	1.3	-19.4	1.3	-18.9	1.2
Father 4	.	.	16.0	1.1	16.8	1.1	17.0	1.1
Mother 1	.	.	-62.6	3.1	-51.6	2.7	-49.3	2.9
Mother 2	.	.	-40.2	2.2	-36.9	2.2	-36.0	2.1
Mother 3	.	.	-25.4	1.7	-24.0	1.6	-23.0	1.6
Mother 4	.	.	10.4	1.3	11.8	1.2	12.0	1.2
Group 1	.	.	.	.	-40.8	2.7	-28.2	2.7
Group 2	.	.	.	.	-14.0	2.0	-10.4	1.9
Other language	.	.	.	.	-27.9	3.0	-24.3	2.9
Imm (10%)	.	.	.	.	.	.	-31.0	3.7

Table A2: Individual regressions with coefficients restricted to be equal: Europe - Math

Variable Names	M 1	SE M 1	M 2	SE M 2	M 3	SE M 3	M 4	SE M 4
Austria	505.5	3.7	502.9	3.4	508.5	3.3	514.6	3.5
Belgium	520.3	2.9	527.2	2.6	531.4	2.6	535.9	2.8
Czech Republic	509.9	3.5	510.6	3.3	511.9	3.3	512.8	3.3
Denmark	513.0	2.5	511.5	2.3	513.8	2.3	516.0	2.4
Estonia	514.6	2.7	509.1	2.6	511.7	2.6	511.1	2.6
Finland	548.4	2.1	542.1	2.3	541.7	2.2	542.3	2.2
France	495.5	3.1	509.9	2.7	513.6	2.8	515.5	2.9
Germany	503.8	3.8	513.5	3.0	517.8	2.9	523.6	3.0
Greece	459.2	2.9	466.2	2.6	469.2	2.6	473.8	2.9
Hungary	490.9	2.8	491.9	2.5	492.1	2.5	492.5	2.6
Ireland	501.5	2.7	507.2	2.3	510.8	2.3	519.2	2.8
Italy	461.7	2.2	476.1	2.3	477.4	2.2	479.3	2.2
Latvia	486.2	3.0	481.4	2.9	484.1	3.0	483.0	3.0
Lithuania	486.4	2.8	479.3	2.9	479.8	2.9	480.1	2.9
Luxembourg	490.0	0.9	507.0	1.6	520.3	2.0	538.4	3.0
Netherlands	530.7	2.5	535.7	2.4	538.7	2.3	540.2	2.3
Portugal	466.2	3.0	510.9	2.7	509.5	2.6	511.7	2.6
Romania	414.8	4.1	411.9	4.0	411.0	4.0	410.6	4.0
Slovak Republic	492.1	2.6	490.9	2.6	491.4	2.6	490.9	2.6
Slovenia	504.5	0.8	505.9	1.1	509.3	1.1	509.5	1.1
Spain	480.0	2.2	504.0	1.9	504.9	1.8	509.7	1.9
Sweden	502.4	2.4	500.1	2.2	503.9	2.2	508.1	2.4
United Kingdom	495.4	2.1	501.0	2.0	503.8	2.0	506.3	2.2
Father 1	.	.	-41.9	2.9	-39.5	2.8	-38.2	2.7
Father 2	.	.	-25.8	1.8	-25.0	1.8	-24.5	1.8
Father 3	.	.	-15.7	1.2	-15.3	1.2	-14.7	1.2
Father 4	.	.	14.9	1.1	15.7	1.1	15.8	1.1
Mother 1	.	.	-53.9	2.8	-44.5	2.6	-42.2	2.8
Mother 2	.	.	-37.3	1.9	-34.5	1.9	-33.6	1.8
Mother 3	.	.	-22.9	1.5	-21.6	1.4	-20.6	1.4
Mother 4	.	.	10.5	1.2	11.7	1.2	11.8	1.2
Group 1	-35.0	2.5	-22.0	2.6
Group 2	-13.0	1.9	-9.2	1.8

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Variable Names	M 1	SE M 1	M 2	SE M 2	M 3	SE M 3	M 4	SE M 4
Other language	-23.1	3.0	-19.3	3.0
Imm (10%)	-32.2	3.8

Table A3: Individual regressions with coefficients restricted to be equal: Europe - Reading

Variable Names	M 1	SE M 1	M 2	SE M 2	M 3	SE M 3	M 4	SE M 4
Austria	490.2	4.0	490.9	3.7	496.3	3.6	502.8	3.6
Belgium	500.9	3.0	511.7	3.0	515.4	3.1	520.2	3.2
Czech Republic	482.7	4.1	484.9	3.9	485.9	3.9	486.8	3.9
Denmark	494.5	3.1	497.7	2.9	499.7	2.9	502.1	3.0
Estonia	500.7	2.9	497.9	3.0	499.7	3.1	499.1	3.0
Finland	546.9	2.1	545.9	2.3	545.5	2.3	546.1	2.3
France	487.7	4.0	505.4	3.8	508.5	4.0	510.5	4.1
Germany	494.9	4.4	510.7	3.4	514.8	3.3	520.9	3.4
Greece	459.7	4.0	470.9	3.6	473.9	3.6	478.7	3.8
Hungary	482.4	3.2	486.5	3.0	486.7	3.0	487.1	3.0
Ireland	517.3	3.4	527.9	3.0	531.2	3.0	540.1	3.6
Italy	468.5	2.4	487.5	2.5	488.7	2.5	490.8	2.4
Latvia	479.5	3.7	479.2	3.2	480.9	3.2	479.8	3.2
Lithuania	470.1	2.9	466.6	3.0	466.8	3.0	467.1	3.0
Luxembourg	479.4	1.0	501.0	1.7	513.7	2.3	532.9	3.2
Netherlands	506.7	2.8	516.1	2.7	518.7	2.6	520.3	2.6
Portugal	472.3	3.5	523.5	3.4	521.9	3.3	524.2	3.4
Romania	395.9	4.6	397.0	4.4	396.0	4.4	395.7	4.4
Slovak Republic	466.3	3.0	467.6	2.9	467.8	3.0	467.3	3.0
Slovenia	494.4	0.8	498.6	1.1	501.4	1.3	501.7	1.2
Spain	460.8	2.2	490.4	2.1	491.4	2.0	496.4	2.2
Sweden	507.3	3.2	511.3	2.9	514.7	3.0	519.3	3.3
United Kingdom	495.1	2.2	506.4	2.1	508.8	2.1	511.5	2.3
Father 1	.	.	-42.2	3.2	-40.1	3.2	-38.8	3.2
Father 2	.	.	-25.7	1.9	-25.0	2.0	-24.5	2.0
Father 3	.	.	-18.1	1.4	-17.8	1.4	-17.2	1.3
Father 4	.	.	12.0	1.2	12.7	1.2	12.9	1.2
Mother 1	.	.	-61.5	3.3	-52.2	3.0	-49.7	3.2
Mother 2	.	.	-43.4	2.3	-40.6	2.2	-39.6	2.1
Mother 3	.	.	-28.5	1.7	-27.3	1.7	-26.2	1.7
Mother 4	.	.	6.6	1.4	7.8	1.4	7.9	1.3
Group 1	.	.	.	.	-36.0	2.9	-22.1	2.8
Group 2	.	.	.	.	-8.7	2.2	-4.7	2.2
Other language	.	.	.	.	-25.8	3.4	-21.8	3.4
Imm (10%)	.	.	.	.	.	.	-34.1	3.9

Table A4: Individual regressions with coefficients restricted to be equal: Spanish regions and selected European countries/regions - Science

Variable Names	M 1	SE M 1	M 2	SE M 2	M 3	SE M 3	M 4	SE M 4
Denmark	495.9	3.0	489.3	3.1	494.1	3.1	496.1	3.3
Flanders	529.2	3.1	525.3	3.2	529.7	3.2	531.8	3.4
Lombardia	499.1	6.2	506.0	5.9	512.0	5.9	515.6	5.7
Andalusia	473.8	3.9	496.7	4.1	499.8	3.9	501.1	3.7
Aragon	513.4	3.8	519.1	3.8	523.8	3.6	527.3	3.5
Asturias	508.5	4.8	512.3	4.4	516.4	4.5	517.9	4.8
Cantabria	509.4	3.5	513.8	3.4	518.1	3.4	521.4	3.7
Castile and Leon	519.8	3.7	525.4	4.0	528.8	4.0	530.8	4.2
Catalonia	491.4	4.9	498.6	4.6	505.5	4.4	510.4	4.5
Galicia	504.5	3.4	515.8	3.2	519.4	3.3	520.2	3.2
La Rioja	519.6	2.3	525.3	2.8	531.0	2.9	535.3	3.2
Navarre	511.3	2.8	517.9	3.5	524.3	3.6	530.5	4.1
Basque Country	494.7	3.4	496.4	3.1	499.8	3.0	501.3	3.0
Rest of Spain	483.9	4.7	498.1	4.4	505.2	4.0	510.5	4.1
Father 1	.	.	-26.1	4.1	-27.2	4.1	-26.5	4.1
Father 2	.	.	-19.0	3.2	-20.2	3.1	-20.0	3.1
Father 3	.	.	-4.9	2.5	-6.6	2.5	-6.5	2.5
Father 4	.	.	18.0	2.0	17.6	2.1	17.2	2.0
Mother 1	.	.	-52.1	4.3	-49.2	4.1	-48.7	4.0
Mother 2	.	.	-30.8	2.8	-30.9	2.7	-30.7	2.7
Mother 3	.	.	-9.7	2.6	-11.1	2.4	-10.7	2.4
Mother 4	.	.	13.1	2.5	13.4	2.3	13.1	2.2
Group 1	.	.	.	.	-55.8	4.9	-47.0	5.2
Group 2	.	.	.	.	-14.8	3.9	-12.9	4.0
Other language	.	.	.	.	-15.8	7.2	-14.3	7.3
Imm (10%)	.	.	.	.	.	.	-21.1	5.4

Table A5: Individual regressions with coefficients restricted to be equal: Spanish regions and selected European countries/regions - Math

Variable Names	M 1	SE M 1	M 2	SE M 2	M 3	SE M 3	M 4	SE M 4
Denmark	513.0	2.5	506.6	2.7	511.1	2.7	513.4	2.8
Flanders	543.4	3.7	540.9	3.7	545.1	3.6	547.5	3.8
Lombardia	486.7	6.4	492.1	6.3	497.6	6.3	501.7	5.9
Andalusia	462.7	4.1	482.1	4.1	485.0	4.0	486.4	3.9
Aragon	512.6	4.4	517.1	4.6	521.4	4.4	525.3	4.1
Asturias	497.3	4.7	499.8	4.4	503.3	4.4	505.0	4.8
Cantabria	501.5	2.6	504.6	2.9	508.7	2.8	512.3	3.0
Castile and Leon	515.1	3.2	519.7	3.7	522.9	3.6	525.1	3.8
Catalonia	487.7	5.0	493.5	4.5	499.8	4.4	505.3	4.6
Galicia	493.9	4.0	503.4	3.8	507.0	3.8	507.9	3.8
La Rioja	526.0	2.0	530.7	2.5	536.0	2.5	540.8	2.8
Navarre	515.0	3.1	520.4	3.6	526.4	3.5	533.2	3.9
Basque Country	501.1	3.3	502.2	3.1	505.3	3.0	507.1	3.0
Rest of Spain	472.5	3.8	485.2	3.8	491.9	3.4	497.7	3.3
Father 1	.	.	-29.4	3.7	-30.3	3.8	-29.5	3.7
Father 2	.	.	-18.0	3.2	-19.1	3.1	-18.9	3.1
Father 3	.	.	-4.0	2.3	-5.6	2.3	-5.4	2.3
Father 4	.	.	17.3	2.0	17.0	2.0	16.6	1.9
Mother 1	.	.	-40.0	5.0	-37.6	4.9	-37.0	4.8
Mother 2	.	.	-27.6	2.3	-27.8	2.3	-27.5	2.3
Mother 3	.	.	-5.9	2.3	-7.3	2.2	-6.9	2.2
Mother 4	.	.	10.9	2.3	11.2	2.1	10.8	2.0
Group 1	.	.	.	.	-53.9	4.7	-44.3	5.2
Group 2	.	.	.	.	-17.6	3.3	-15.5	3.5
Other language	.	.	.	.	-5.5	5.9	-3.9	6.0
Imm (10%)	.	.	.	.	.	.	-23.2	5.6

Table A6: Individual regressions with coefficients restricted to be equal: Spanish regions and selected European countries/regions - Reading

Variable Names	M 1	SE M 1	M 2	SE M 2	M 3	SE M 3	M 4	SE M 4
Denmark	494.5	3.1	492.4	3.2	497.2	3.2	500.2	3.4
Flanders	522.0	4.1	523.8	4.0	528.2	3.9	531.2	4.1
Lombardia	490.5	7.0	497.8	6.7	503.7	6.5	509.0	6.0
Andalusia	444.6	4.0	468.8	3.9	471.7	3.7	473.7	3.4
Aragon	483.4	5.2	491.3	5.5	495.8	5.4	500.8	5.2
Asturias	477.2	4.6	483.6	4.6	487.8	4.6	490.0	5.1
Cantabria	474.7	3.9	480.8	4.0	484.9	4.1	489.7	4.8
Castile and Leon	478.1	3.3	485.9	3.8	489.2	3.7	492.1	4.1
Catalonia	476.8	4.9	486.5	4.9	493.1	4.6	500.3	4.7
Galicia	478.7	3.4	491.2	3.9	494.7	4.0	495.8	4.2
La Rioja	491.7	2.3	499.4	2.8	504.9	2.8	511.1	3.1
Navarre	480.5	2.6	489.3	3.2	495.5	3.2	504.4	3.9
Basque Country	487.4	4.2	494.4	4.0	497.6	3.9	499.8	3.8
Rest of Spain	452.6	3.9	467.9	4.2	474.7	4.0	482.3	4.3
Father 1	.	.	-28.3	4.4	-29.3	4.5	-28.2	4.4
Father 2	.	.	-19.4	3.0	-20.6	2.9	-20.3	2.9
Father 3	.	.	-2.1	2.5	-3.8	2.5	-3.6	2.4
Father 4	.	.	11.3	2.3	10.8	2.3	10.3	2.2
Mother 1	.	.	-44.3	3.9	-41.3	3.8	-40.6	3.5
Mother 2	.	.	-31.2	2.3	-31.3	2.3	-30.9	2.2
Mother 3	.	.	-7.6	2.7	-9.1	2.6	-8.4	2.5
Mother 4	.	.	8.6	2.6	8.9	2.4	8.4	2.3
Group 1	.	.	.	.	-51.1	4.1	-38.5	4.2
Group 2	.	.	.	.	-15.0	4.0	-12.3	3.9
Other language	.	.	.	.	-21.2	6.8	-19.1	7.0
Imm (10%)	.	.	.	.	.	.	-30.5	6.4

Table A7: Science - Country regressions - Deviations from the mean - Schooling controls

	Unconditional	Conditional
Austria	11.2	2.5
Belgium	10.7	9.7
Czech Republic	13.2	6.6
Denmark	-3.7	-10.5
Estonia	31.8	19.8
Finland	63.7	51.3
France	-4.4	5.3
Germany	16.0	19.8
Greece	-26.3	-24.3
Hungary	4.3	-0.4
Ireland	8.7	9.6
Italy	-24.2	-13.6
Latvia	-10.1	-21.2
Lithuania	-11.7	-25.8
Luxembourg	-13.3	-1.1
Netherlands	25.2	24.6
Portugal	-25.3	17.2
Romania	-81.3	-90.1
Slovak Republic	-11.2	-18.6
Slovenia	19.2	15.0
Spain	-11.2	9.3
Sweden	3.7	-2.9
United Kingdom	15.1	17.8

Table A8: Science - Country regressions - Deviations from the mean - Schooling and immigration controls

	Unconditional	Conditional
Austria	11.2	6.0
Belgium	10.7	11.5
Czech Republic	13.2	5.0
Denmark	-3.7	-10.9
Estonia	31.8	19.7
Finland	63.7	47.8
France	-4.4	6.6
Germany	16.0	21.8
Greece	-26.3	-23.7
Hungary	4.3	-3.2
Ireland	8.7	10.7
Italy	-24.2	-15.1
Latvia	-10.1	-21.3
Lithuania	-11.7	-28.2
Luxembourg	-13.3	11.3
Netherlands	25.2	25.0
Portugal	-25.3	12.5
Romania	-81.3	-94.2
Slovak Republic	-11.2	-21.1
Slovenia	19.2	15.9
Spain	-11.2	7.4
Sweden	3.7	-1.5
United Kingdom	15.1	18.0

Table A9: Science - Country regressions - Deviations from the mean - Schooling and immigration (with control for students in schools with more than 10% immigration) controls

	Unconditional	Conditional
Austria	11.2	9.0
Belgium	10.7	13.0
Czech Republic	13.2	3.0
Denmark	-3.7	-11.6
Estonia	31.8	16.3
Finland	63.7	45.5
France	-4.4	5.5
Germany	16.0	24.4
Greece	-26.3	-22.3
Hungary	4.3	-5.7
Ireland	8.7	15.9
Italy	-24.2	-16.1
Latvia	-10.1	-25.2
Lithuania	-11.7	-30.8
Luxembourg	-13.3	25.9
Netherlands	25.2	23.6
Portugal	-25.3	11.8
Romania	-81.3	-97.4
Slovak Republic	-11.2	-24.4
Slovenia	19.2	13.2
Spain	-11.2	9.1
Sweden	3.7	-0.3
United Kingdom	15.1	17.5

Table A10: Math - Country regressions - Deviations from the mean - Schooling controls

	Unconditional	Conditional
Austria	11.0	3.1
Belgium	25.9	27.3
Czech Republic	15.4	10.8
Denmark	18.6	11.6
Estonia	20.1	9.2
Finland	53.9	42.2
France	1.1	10.0
Germany	9.3	13.7
Greece	-35.3	-33.6
Hungary	-3.5	-7.9
Ireland	7.0	7.4
Italy	-32.8	-23.7
Latvia	-8.3	-18.4
Lithuania	-8.0	-20.6
Luxembourg	-4.5	7.2
Netherlands	36.2	35.9
Portugal	-28.3	11.0
Romania	-79.7	-87.9
Slovak Republic	-2.4	-8.9
Slovenia	10.0	6.1
Spain	-14.5	4.2
Sweden	7.9	0.2
United Kingdom	1.0	1.2

Table A11: Math - Country regressions - Deviations from the mean - Schooling and immigration controls

	Unconditional	Conditional
Austria	11.0	6.0
Belgium	25.9	28.9
Czech Republic	15.4	9.4
Denmark	18.6	11.3
Estonia	20.1	9.3
Finland	53.9	39.2
France	1.1	11.2
Germany	9.3	15.3
Greece	-35.3	-33.2
Hungary	-3.5	-10.4
Ireland	7.0	8.4
Italy	-32.8	-25.1
Latvia	-8.3	-18.4
Lithuania	-8.0	-22.7
Luxembourg	-4.5	17.8
Netherlands	36.2	36.3
Portugal	-28.3	7.0
Romania	-79.7	-91.5
Slovak Republic	-2.4	-11.1
Slovenia	10.0	6.8
Spain	-14.5	2.5
Sweden	7.9	1.4
United Kingdom	1.0	1.3

Table A12: Math - Country regressions - Deviations from the mean - Schooling and immigration (with control for students in schools with more than 10% immigration) controls

	Unconditional	Conditional
Austria	11.0	9.1
Belgium	25.9	30.5
Czech Republic	15.4	7.3
Denmark	18.6	10.6
Estonia	20.1	5.7
Finland	53.9	36.9
France	1.1	10.1
Germany	9.3	18.1
Greece	-35.3	-31.7
Hungary	-3.5	-13.0
Ireland	7.0	13.8
Italy	-32.8	-26.1
Latvia	-8.3	-22.4
Lithuania	-8.0	-25.3
Luxembourg	-4.5	32.9
Netherlands	36.2	34.8
Portugal	-28.3	6.2
Romania	-79.7	-94.8
Slovak Republic	-2.4	-14.5
Slovenia	10.0	4.1
Spain	-14.5	4.3
Sweden	7.9	2.7
United Kingdom	1.0	0.9

Table A13: Reading - Country regressions - Deviations from the mean -
 Schooling controls

	Unconditional	Conditional
Austria	5.2	-3.7
Belgium	15.9	17.1
Czech Republic	-2.3	-9.7
Denmark	9.5	3.1
Estonia	15.8	3.3
Finland	61.9	51.3
France	2.7	10.8
Germany	10.0	16.1
Greece	-25.3	-23.7
Hungary	-2.6	-8.1
Ireland	32.3	33.3
Italy	-16.4	-7.1
Latvia	-5.5	-15.4
Lithuania	-14.9	-28.0
Luxembourg	-5.6	6.4
Netherlands	21.8	21.5
Portugal	-12.7	28.9
Romania	-89.0	-97.6
Slovak Republic	-18.6	-27.0
Slovenia	9.4	4.0
Spain	-24.1	-4.2
Sweden	22.3	16.7
United Kingdom	10.1	11.8

Table A14: Reading - Country regressions - Deviations from the mean -
 Schooling and immigration controls

	Unconditional	Conditional
Austria	5.2	-0.6
Belgium	15.9	18.5
Czech Republic	-2.3	-11.0
Denmark	9.5	2.8
Estonia	15.8	2.8
Finland	61.9	48.6
France	2.7	11.6
Germany	10.0	17.9
Greece	-25.3	-23.0
Hungary	-2.6	-10.2
Ireland	32.3	34.3
Italy	-16.4	-8.2
Latvia	-5.5	-16.0
Lithuania	-14.9	-30.1
Luxembourg	-5.6	16.8
Netherlands	21.8	21.8
Portugal	-12.7	25.0
Romania	-89.0	-100.8
Slovak Republic	-18.6	-29.1
Slovenia	9.4	4.6
Spain	-24.1	-5.5
Sweden	22.3	17.8
United Kingdom	10.1	11.9

Table A15: Reading - Country regressions - Deviations from the mean - Schooling and immigration (with control for students in schools with more than 10% immigration) controls

	Unconditional	Conditional
Austria	5.2	2.7
Belgium	15.9	20.1
Czech Republic	-2.3	-13.2
Denmark	9.5	2.0
Estonia	15.8	-1.0
Finland	61.9	46.1
France	2.7	10.5
Germany	10.0	20.8
Greece	-25.3	-21.3
Hungary	-2.6	-13.0
Ireland	32.3	40.0
Italy	-16.4	-9.3
Latvia	-5.5	-20.3
Lithuania	-14.9	-33.0
Luxembourg	-5.6	32.8
Netherlands	21.8	20.2
Portugal	-12.7	24.2
Romania	-89.0	-104.4
Slovak Republic	-18.6	-32.7
Slovenia	9.4	1.6
Spain	-24.1	-3.6
Sweden	22.3	19.2
United Kingdom	10.1	11.4

Table A16: Science - Regions/countries regressions - Deviations from the mean - Schooling controls

	Unconditional	Conditional
Denmark	-8.0	-20.7
Flanders	25.3	15.3
Lombardia	-4.8	-4.0
Andalusia	-30.1	-13.3
Aragon	9.5	9.1
Asturias	4.6	2.3
Cantabria	5.5	3.8
Castile and Leon	16.0	15.4
Catalonia	-12.5	-11.4
Galicia	0.6	5.8
La Rioja	15.7	15.3
Navarre	7.4	7.9
Basque Country	-9.2	-13.6
Rest of Spain	-20.0	-11.9

Table A17: Science - Regions/countries regressions - Deviations from the mean - Schooling and immigration controls

	Unconditional	Conditional
Denmark	-8.0	-20.8
Flanders	25.3	14.8
Lombardia	-4.8	-2.9
Andalusia	-30.1	-15.1
Aragon	9.5	9.0
Asturias	4.6	1.5
Cantabria	5.5	3.3
Castile and Leon	16.0	13.9
Catalonia	-12.5	-9.4
Galicia	0.6	4.5
La Rioja	15.7	16.2
Navarre	7.4	9.5
Basque Country	-9.2	-15.1
Rest of Spain	-20.0	-9.6

Table A18: Science - Regions/countries regressions - Deviations from the mean - Schooling and immigration (with control for students in schools with more than 10% immigration) controls

	Unconditional	Conditional
Denmark	-8.0	-21.7
Flanders	25.3	13.9
Lombardia	-4.8	-2.2
Andalusia	-30.1	-16.7
Aragon	9.5	9.4
Asturias	4.6	0.0
Cantabria	5.5	3.5
Castile and Leon	16.0	12.9
Catalonia	-12.5	-7.4
Galicia	0.6	2.3
La Rioja	15.7	17.5
Navarre	7.4	12.6
Basque Country	-9.2	-16.6
Rest of Spain	-20.0	-7.4

Table A19: Math - Regions/countries regressions - Deviations from the mean
 - Schooling controls

	Unconditional	Conditional
Denmark	11.0	-0.4
Flanders	41.4	33.9
Lombardia	-15.3	-14.9
Andalusia	-39.3	-24.9
Aragon	10.6	10.0
Asturias	-4.7	-7.2
Cantabria	-0.5	-2.4
Castile and Leon	13.1	12.7
Catalonia	-14.3	-13.5
Galicia	-8.2	-3.6
La Rioja	23.9	23.7
Navarre	13.0	13.4
Basque Country	-1.0	-4.8
Rest of Spain	-29.5	-21.8

Table A20: Math - Regions/countries regressions - Deviations from the mean
 - Schooling and immigration controls

	Unconditional	Conditional
Denmark	11.0	-0.5
Flanders	41.4	33.6
Lombardia	-15.3	-13.9
Andalusia	-39.3	-26.6
Aragon	10.6	9.9
Asturias	-4.7	-8.2
Cantabria	-0.5	-2.8
Castile and Leon	13.1	11.3
Catalonia	-14.3	-11.7
Galicia	-8.2	-4.5
La Rioja	23.9	24.5
Navarre	13.0	14.9
Basque Country	-1.0	-6.2
Rest of Spain	-29.5	-19.7

Table A21: Math - Regions/countries regressions - Deviations from the mean
 - Schooling and immigration (with control for students in schools with more
 than 10% immigration) controls

	Unconditional	Conditional
Denmark	11.0	-1.5
Flanders	41.4	32.6
Lombardia	-15.3	-13.2
Andalusia	-39.3	-28.4
Aragon	10.6	10.4
Asturias	-4.7	-9.9
Cantabria	-0.5	-2.5
Castile and Leon	13.1	10.2
Catalonia	-14.3	-9.6
Galicia	-8.2	-7.0
La Rioja	23.9	25.9
Navarre	13.0	18.3
Basque Country	-1.0	-7.8
Rest of Spain	-29.5	-17.2

Table A22: Reading - Regions/countries regressions - Deviations from the mean - Schooling controls

	Unconditional	Conditional
Denmark	13.6	2.9
Flanders	41.1	34.3
Lombardia	9.6	8.3
Andalusia	-36.3	-20.7
Aragon	2.4	1.8
Asturias	-3.7	-5.9
Cantabria	-6.2	-8.7
Castile and Leon	-2.8	-3.6
Catalonia	-4.1	-3.0
Galicia	-2.2	1.7
La Rioja	10.7	9.9
Navarre	-0.4	-0.2
Basque Country	6.5	4.9
Rest of Spain	-28.3	-21.6

Table A23: Reading - Regions/countries regressions - Deviations from the mean - Schooling and immigration controls

	Unconditional	Conditional
Denmark	13.6	3.0
Flanders	41.1	33.9
Lombardia	9.6	9.5
Andalusia	-36.3	-22.5
Aragon	2.4	1.6
Asturias	-3.7	-6.4
Cantabria	-6.2	-9.3
Castile and Leon	-2.8	-5.0
Catalonia	-4.1	-1.1
Galicia	-2.2	0.5
La Rioja	10.7	10.7
Navarre	-0.4	1.3
Basque Country	6.5	3.4
Rest of Spain	-28.3	-19.5

Table A24: Reading - Regions/countries regressions - Deviations from the mean - Schooling and immigration (with control for students in schools with more than 10% immigration) controls

	Unconditional	Conditional
Denmark	13.6	1.6
Flanders	41.1	32.6
Lombardia	9.6	10.4
Andalusia	-36.3	-24.9
Aragon	2.4	2.2
Asturias	-3.7	-8.6
Cantabria	-6.2	-8.9
Castile and Leon	-2.8	-6.5
Catalonia	-4.1	1.7
Galicia	-2.2	-2.8
La Rioja	10.7	12.5
Navarre	-0.4	5.8
Basque Country	6.5	1.2
Rest of Spain	-28.3	-16.3

Table A25: Schooling (Spanish shares) - Science

	Unconditional	Conditional
Austria	11.2	-9.7
Belgium	10.7	15.6
Czech Republic	13.2	-7.4
Denmark	-3.7	-12.8
Estonia	31.8	36.1
Finland	63.7	67.3
France	-4.4	10.0
Germany	16.0	-2.9
Greece	-26.3	-21.5
Hungary	4.3	-6.2
Ireland	8.7	18.1
Italy	-24.2	-14.4
Latvia	-10.1	-17.8
Lithuania	-11.7	-26.4
Luxembourg	-13.3	10.0
Netherlands	25.2	32.4
Portugal	-25.3	11.9
Romania	-81.3	-88.1
Slovak Republic	-11.2	-47.0
Slovenia	19.2	23.0
Spain	-11.2	12.8
Sweden	3.7	1.7
United Kingdom	15.1	15.3

Table A26: Schooling and immigration (Spanish shares) - Science

	Unconditional	Conditional
Austria	11.2	4.4
Belgium	10.7	21.9
Czech Republic	13.2	-10.7
Denmark	-3.7	-10.1
Estonia	31.8	34.3
Finland	63.7	61.4
France	-4.4	6.4
Germany	16.0	2.6
Greece	-26.3	-24.0
Hungary	4.3	-10.5
Ireland	8.7	13.6
Italy	-24.2	-19.5
Latvia	-10.1	-21.8
Lithuania	-11.7	-31.6
Luxembourg	-13.3	21.7
Netherlands	25.2	34.8
Portugal	-25.3	8.8
Romania	-81.3	-81.6
Slovak Republic	-11.2	-51.8
Slovenia	19.2	26.6
Spain	-11.2	8.4
Sweden	3.7	4.0
United Kingdom	15.1	12.8

Table A27: Schooling, immigration and >10% (Spanish shares) - Science

	Unconditional	Conditional
Austria	11.2	6.1
Belgium	10.7	23.3
Czech Republic	13.2	-14.5
Denmark	-3.7	-10.4
Estonia	31.8	21.5
Finland	63.7	60.0
France	-4.4	1.5
Germany	16.0	8.4
Greece	-26.3	-23.7
Hungary	4.3	-13.3
Ireland	8.7	14.4
Italy	-24.2	-20.0
Latvia	-10.1	-19.1
Lithuania	-11.7	-34.5
Luxembourg	-13.3	39.7
Netherlands	25.2	29.1
Portugal	-25.3	13.2
Romania	-81.3	-81.0
Slovak Republic	-11.2	-51.2
Slovenia	19.2	23.4
Spain	-11.2	8.9
Sweden	3.7	4.6
United Kingdom	15.1	13.5

>10% : dummy equal to one if the student attends a school with more than 10% students born abroad with at least one parent born abroad

Table A28: Schooling (Spanish shares) - Math

	Unconditional	Conditional
Austria	11.0	1.2
Belgium	25.9	34.8
Czech Republic	15.4	-14.1
Denmark	18.6	17.3
Estonia	20.1	13.9
Finland	53.9	59.4
France	1.1	15.3
Germany	9.3	-11.9
Greece	-35.3	-26.8
Hungary	-3.5	-18.7
Ireland	7.0	19.5
Italy	-32.8	-21.1
Latvia	-8.3	-30.4
Lithuania	-8.0	-27.5
Luxembourg	-4.5	22.5
Netherlands	36.2	48.9
Portugal	-28.3	10.9
Romania	-79.7	-83.3
Slovak Republic	-2.4	-50.7
Slovenia	10.0	13.0
Spain	-14.5	11.2
Sweden	7.9	7.4
United Kingdom	1.0	9.3

Table A29: Schooling and immigration (Spanish shares) - Math

	Unconditional	Conditional
Austria	11.0	12.2
Belgium	25.9	42.9
Czech Republic	15.4	-16.3
Denmark	18.6	20.1
Estonia	20.1	11.9
Finland	53.9	54.8
France	1.1	13.2
Germany	9.3	-7.1
Greece	-35.3	-29.0
Hungary	-3.5	-21.7
Ireland	7.0	16.0
Italy	-32.8	-25.1
Latvia	-8.3	-33.5
Lithuania	-8.0	-30.9
Luxembourg	-4.5	31.1
Netherlands	36.2	51.0
Portugal	-28.3	8.1
Romania	-79.7	-82.0
Slovak Republic	-2.4	-55.2
Slovenia	10.0	14.8
Spain	-14.5	7.7
Sweden	7.9	9.7
United Kingdom	1.0	7.5

Table A30: Schooling, immigration and >10% (Spanish shares) - Math

	Unconditional	Conditional
Austria	11.0	13.8
Belgium	25.9	44.1
Czech Republic	15.4	-19.8
Denmark	18.6	19.6
Estonia	20.1	-0.6
Finland	53.9	52.6
France	1.1	8.3
Germany	9.3	-0.9
Greece	-35.3	-29.0
Hungary	-3.5	-25.5
Ireland	7.0	16.2
Italy	-32.8	-25.6
Latvia	-8.3	-32.5
Lithuania	-8.0	-31.6
Luxembourg	-4.5	52.5
Netherlands	36.2	45.1
Portugal	-28.3	12.6
Romania	-79.7	-81.7
Slovak Republic	-2.4	-54.8
Slovenia	10.0	11.3
Spain	-14.5	8.0
Sweden	7.9	9.9
United Kingdom	1.0	7.9

>10% : dummy equal to one if the student attends a school with more than 10% students born abroad with at least one parent born abroad

Table A31: Schooling (Spanish shares) - Reading

	Unconditional	Conditional
Austria	5.2	-5.8
Belgium	15.9	26.0
Czech Republic	-2.3	-24.5
Denmark	9.5	7.4
Estonia	15.8	-7.8
Finland	61.9	69.0
France	2.7	18.4
Germany	10.0	-29.1
Greece	-25.3	-19.0
Hungary	-2.6	-16.9
Ireland	32.3	44.6
Italy	-16.4	-6.8
Latvia	-5.5	-16.7
Lithuania	-14.9	-28.0
Luxembourg	-5.6	19.3
Netherlands	21.8	32.8
Portugal	-12.7	30.0
Romania	-89.0	-87.0
Slovak Republic	-18.6	-68.3
Slovenia	9.4	16.1
Spain	-24.1	2.6
Sweden	22.3	26.0
United Kingdom	10.1	17.8

Table A32: Schooling and immigration (Spanish shares) - Reading

	Unconditional	Conditional
Austria	5.2	3.2
Belgium	15.9	34.5
Czech Republic	-2.3	-26.9
Denmark	9.5	9.6
Estonia	15.8	-8.6
Finland	61.9	64.8
France	2.7	14.3
Germany	10.0	-24.3
Greece	-25.3	-20.6
Hungary	-2.6	-20.6
Ireland	32.3	41.3
Italy	-16.4	-10.9
Latvia	-5.5	-19.5
Lithuania	-14.9	-30.7
Luxembourg	-5.6	31.3
Netherlands	21.8	34.0
Portugal	-12.7	28.2
Romania	-89.0	-84.1
Slovak Republic	-18.6	-73.1
Slovenia	9.4	16.8
Spain	-24.1	-0.7
Sweden	22.3	27.1
United Kingdom	10.1	14.9

Table A33: Schooling, immigration and >10% (Spanish shares) - Reading

	Unconditional	Conditional
Austria	5.2	5.8
Belgium	15.9	36.5
Czech Republic	-2.3	-32.0
Denmark	9.5	9.9
Estonia	15.8	-27.4
Finland	61.9	64.4
France	2.7	9.4
Germany	10.0	-17.7
Greece	-25.3	-19.9
Hungary	-2.6	-23.8
Ireland	32.3	43.1
Italy	-16.4	-10.5
Latvia	-5.5	-20.0
Lithuania	-14.9	-33.4
Luxembourg	-5.6	50.2
Netherlands	21.8	27.3
Portugal	-12.7	32.4
Romania	-89.0	-83.1
Slovak Republic	-18.6	-72.1
Slovenia	9.4	16.3
Spain	-24.1	0.2
Sweden	22.3	28.2
United Kingdom	10.1	16.3

>10% : dummy equal to one if the student attends a school with more than 10% students born abroad with at least one parent born abroad

Table A34: Schooling (Catalan shares) - Science

	Unconditional	Conditional
Denmark	-8.0	-29.4
Flanders	25.3	10.8
Lombardia	-4.8	-12.8
Andalusia	-30.1	-12.9
Aragon	9.5	11.8
Asturias	4.6	5.6
Cantabria	5.5	6.2
Castile and Leon	16.0	17.6
Catalonia	-12.5	-9.4
Galicia	0.6	7.0
La Rioja	15.7	16.2
Navarre	7.4	10.3
Basque Country	-9.2	-11.3
Rest of Spain	-20.0	-9.7

Table A35: Schooling and immigration (Catalan shares) - Science

	Unconditional	Conditional
Denmark	-8.0	-24.4
Flanders	25.3	14.1
Lombardia	-4.8	-11.5
Andalusia	-30.1	-14.7
Aragon	9.5	9.4
Asturias	4.6	5.6
Cantabria	5.5	5.4
Castile and Leon	16.0	14.1
Catalonia	-12.5	-8.7
Galicia	0.6	5.7
La Rioja	15.7	15.4
Navarre	7.4	11.4
Basque Country	-9.2	-13.3
Rest of Spain	-20.0	-8.4

Table A36: Schooling, immigration and >10% (Catalan shares) - Science

	Unconditional	Conditional
Denmark	-8.0	-24.6
Flanders	25.3	8.6
Lombardia	-4.8	-12.0
Andalusia	-30.1	-16.4
Aragon	9.5	9.6
Asturias	4.6	6.0
Cantabria	5.5	7.1
Castile and Leon	16.0	16.4
Catalonia	-12.5	-7.3
Galicia	0.6	6.9
La Rioja	15.7	16.3
Navarre	7.4	12.6
Basque Country	-9.2	-16.5
Rest of Spain	-20.0	-6.7

>10% : dummy equal to one if the student attends a school with more than 10% students born abroad with at least one parent born abroad

Table A37: Schooling (Catalan shares) - Math

	Unconditional	Conditional
Denmark	11.0	-5.8
Flanders	41.4	27.1
Lombardia	-15.3	-20.1
Andalusia	-39.3	-25.1
Aragon	10.6	12.3
Asturias	-4.7	-3.5
Cantabria	-0.5	-1.0
Castile and Leon	13.1	14.5
Catalonia	-14.3	-11.5
Galicia	-8.2	-2.3
La Rioja	23.9	24.3
Navarre	13.0	14.8
Basque Country	-1.0	-3.4
Rest of Spain	-29.5	-20.1

Table A38: Schooling and immigration (Catalan shares) - Math

	Unconditional	Conditional
Denmark	11.0	-1.2
Flanders	41.4	29.6
Lombardia	-15.3	-19.0
Andalusia	-39.3	-26.3
Aragon	10.6	10.3
Asturias	-4.7	-4.0
Cantabria	-0.5	-1.6
Castile and Leon	13.1	10.6
Catalonia	-14.3	-10.7
Galicia	-8.2	-2.8
La Rioja	23.9	24.0
Navarre	13.0	16.0
Basque Country	-1.0	-6.3
Rest of Spain	-29.5	-18.7

Table A39: Schooling, immigration and schools >10% (Catalan shares) - Math

	Unconditional	Conditional
Denmark	11.0	-1.3
Flanders	41.4	23.2
Lombardia	-15.3	-19.6
Andalusia	-39.3	-28.0
Aragon	10.6	10.4
Asturias	-4.7	-2.9
Cantabria	-0.5	-0.6
Castile and Leon	13.1	13.0
Catalonia	-14.3	-9.3
Galicia	-8.2	1.2
La Rioja	23.9	25.1
Navarre	13.0	17.9
Basque Country	-1.0	-12.0
Rest of Spain	-29.5	-17.1

Table A40: Schooling (Catalan shares) - Reading

	Unconditional	Conditional
Denmark	13.6	-4.5
Flanders	41.1	24.5
Lombardia	9.6	0.1
Andalusia	-36.3	-21.2
Aragon	2.4	5.0
Asturias	-3.7	-3.3
Cantabria	-6.2	-4.3
Castile and Leon	-2.8	-1.2
Catalonia	-4.1	-0.9
Galicia	-2.2	4.6
La Rioja	10.7	11.1
Navarre	-0.4	3.0
Basque Country	6.5	7.1
Rest of Spain	-28.3	-19.8

Table A41: Schooling and immigration (Catalan shares) - Reading

	Unconditional	Conditional
Denmark	13.6	-0.8
Flanders	41.1	27.7
Lombardia	9.6	0.9
Andalusia	-36.3	-22.4
Aragon	2.4	2.8
Asturias	-3.7	-2.3
Cantabria	-6.2	-5.2
Castile and Leon	-2.8	-4.3
Catalonia	-4.1	-0.4
Galicia	-2.2	3.6
La Rioja	10.7	10.2
Navarre	-0.4	3.6
Basque Country	6.5	5.4
Rest of Spain	-28.3	-18.9

Table A42: Schooling, immigration and >10% (Catalan shares) - Reading

	Unconditional	Conditional
Denmark	13.6	-0.6
Flanders	41.1	19.6
Lombardia	9.6	0.1
Andalusia	-36.3	-27.7
Aragon	2.4	2.5
Asturias	-3.7	-1.0
Cantabria	-6.2	-3.4
Castile and Leon	-2.8	-1.6
Catalonia	-4.1	1.0
Galicia	-2.2	10.9
La Rioja	10.7	10.8
Navarre	-0.4	5.3
Basque Country	6.5	1.3
Rest of Spain	-28.3	-17.1

>10% : dummy equal to one if the student attends a school with more than 10% students born abroad with at least one parent born abroad

Table A43: Unconditional means against total expenditures per student (secondary education) - Europe

	Unconditional means	Expenditures per student
Austria	9.1	8943.0
Belgium	17.5	7708.0
Czech Republic	8.8	4088.0
Denmark	8.1	8183.0
Finland	59.8	7402.0
France	-0.2	8653.0
Germany	11.8	7173.0
Greece	-28.9	4954.0
Hungary	-0.6	3948.0
Ireland	16.0	6374.0
Italy	-24.5	7938.0
Luxembourg	-7.8	17078.0
Netherlands	27.7	6996.0
Portugal	-22.1	6034.0
Slovak Republic	-10.7	2401.0
Spain	-16.6	6418.0
Sweden	11.3	7662.0
United Kingdom	8.7	7290.0

Note: In equivalent US dollars converted using PPPs for GDP.
 For Portugal and Italy public institutions only.
 OECD countries (Luxembourg has been omitted).

Table A44: Conditional means against total expenditures per student (secondary education) - Europe

	Cconditional means	Expenditures per student
Austria	7.0	8943.0
Belgium	21.2	7708.0
Czech Republic	-1.0	4088.0
Denmark	0.3	8183.0
Estonia	7.0	.
Finland	42.8	7402.0
France	8.7	8653.0
Germany	21.1	7173.0
Greece	-25.1	4954.0
Hungary	-10.5	3948.0
Ireland	23.2	6374.0
Italy	-17.2	7938.0
Latvia	-22.6	.
Lithuania	-29.7	.
Luxembourg	30.5	17078.0
Netherlands	26.2	6996.0
Portugal	14.1	6034.0
Romania	-98.9	.
Slovak Republic	-23.9	2401.0
Slovenia	6.3	.
Spain	3.2	6418.0
Sweden	7.2	7662.0
United Kingdom	9.9	7290.0

Note: In equivalent US dollars converted using PPPs for GDP.
For Portugal and Italy public institutions only.
OECD countries (Luxembourg has been omitted).

Table A45: Unconditional means against total expenditures per student (secondary education) - Europe

	Unconditional means	Expenditures per student
Andalusia	-35.2	80.7
Aragon	7.5	110.4
Asturias	-1.3	102.8
Cantabria	-0.4	101.4
Castile and Leon	8.7	103.5
Catalonia	-10.3	112.8
Galicia	-3.2	108.9
La Rioja	16.8	104.4
Navarre	6.7	147.1
Basque Country	-1.2	154.6
Rest of Spain	-26.0	94.9

Table A46: Conditional means against total expenditures per student (secondary education) - Europe

	Cconditional means	Expenditures per student
Andalusia	-23.4	80.7
Aragon	7.3	110.4
Asturias	-6.2	102.8
Cantabria	-2.7	101.4
Castile and Leon	5.5	103.5
Catalonia	-5.1	112.8
Galicia	-2.5	108.9
La Rioja	18.6	104.4
Navarre	12.2	147.1
Basque Country	-7.7	154.6
Rest of Spain	-13.6	94.9

Comparison of methods

SCI: Science Scores

REA: Reading Scores

MAT: Math Scores

1: Schooling controls

2: Schooling and immigration controls

3: Schooling, immigration and dummy for students attending more than 10%

4: Schooling, immigration, more than 10% and interactions between the previous variables

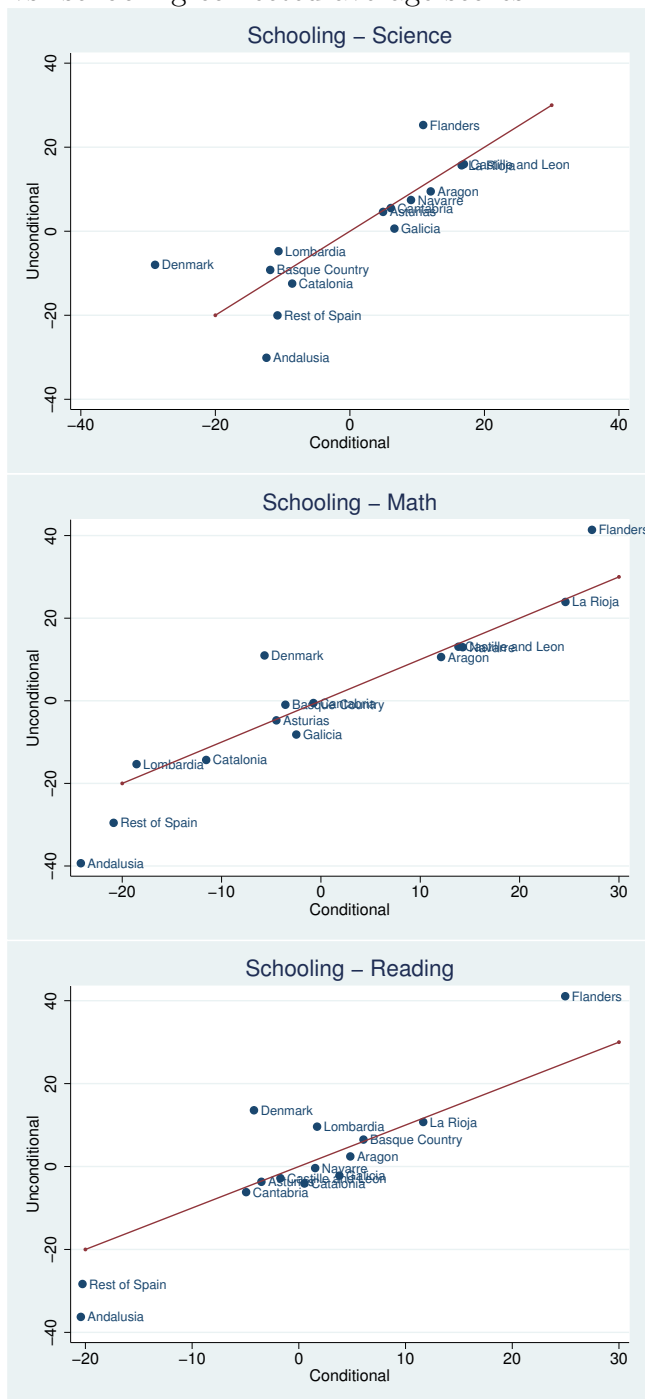
Table A47: Comparison of methods: Results for Spain (European Union sample)

	Individual effects	Shift share effects
SCI1	9.3	12.8
SCI2	7.4	8.4
SCI3	9.1	8.0
SCI4	8.7	8.4
REA1	-4.2	2.6
REA2	-5.5	-0.7
REA3	-3.6	-0.7
REA4	-3.9	-0.2
MAT1	4.2	11.2
MAT2	2.5	7.7
MAT3	4.3	7.1
MAT4	3.9	7.5

Table A48: Comparison of methods: Results for Catalonia (Regions sample)

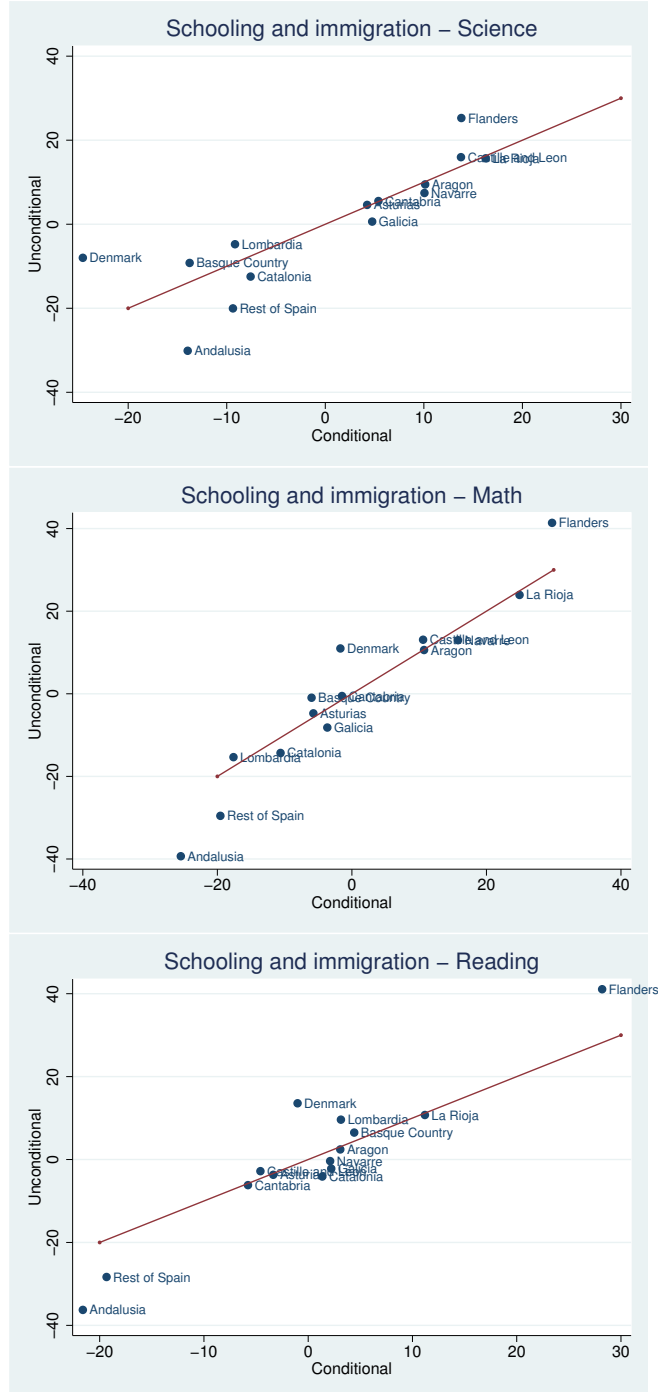
	Individual effects	Shift share effects
SCI1	-11.4	-9.4
SCI2	-9.4	-8.7
SCI3	-7.3	-7.2
SCI4	-7.3	-7.1
REA1	-3.0	-0.9
REA2	-1.1	-0.4
REA3	1.7	1.2
REA4	1.7	1.2
MAT1	-13.5	-11.5
MAT2	-11.7	-10.7
MAT3	-9.5	-9.2
MAT4	-9.4	-9.1

Figure A1: Deviations from the mean - Regions/countries: Unconditional average scores vs. schooling-corrected average scores



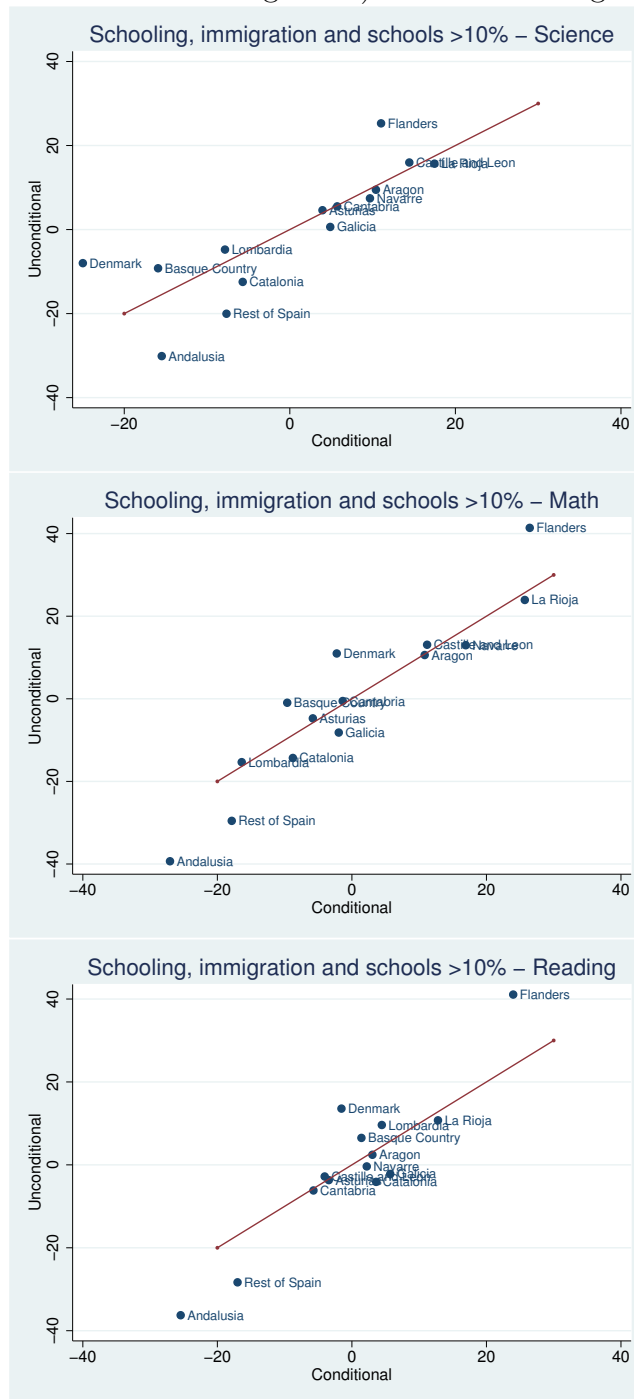
Note: Shift-share method at the European average.

Figure A2: Deviations from the mean - Regions/countries: Unconditional average scores vs. schooling and immigration corrected average scores



Note: Shift-share method at the European average.

Figure A3: Deviations from the mean - Regions/countries: Unconditional average scores vs. schooling and immigration (with control for students in school with more than 10% immigration) corrected average scores



Note: Shift-share method at the European average.

Table A49: Schooling (European average shares) - Science

	Unconditional	Conditional
Austria	11.2	2.2
Belgium	10.7	13.0
Czech Republic	13.2	1.9
Denmark	-3.7	-10.6
Estonia	31.8	25.0
Finland	63.7	53.0
France	-4.4	7.6
Germany	16.0	16.5
Greece	-26.3	-22.6
Hungary	4.3	1.1
Ireland	8.7	12.3
Italy	-24.2	-15.7
Latvia	-10.1	-19.9
Lithuania	-11.7	-28.3
Luxembourg	-13.3	3.4
Netherlands	25.2	26.1
Portugal	-25.3	1.6
Romania	-81.3	-88.8
Slovak Republic	-11.2	-23.3
Slovenia	19.2	20.3
Spain	-11.2	4.6
Sweden	3.7	1.8
United Kingdom	15.1	18.9

Table A50: Schooling and immigration (European average shares) - Science

	Unconditional	Conditional
Austria	11.2	8.4
Belgium	10.7	15.6
Czech Republic	13.2	-0.9
Denmark	-3.7	-11.5
Estonia	31.8	24.6
Finland	63.7	49.0
France	-4.4	6.1
Germany	16.0	17.8
Greece	-26.3	-23.3
Hungary	4.3	-2.4
Ireland	8.7	8.9
Italy	-24.2	-17.9
Latvia	-10.1	-21.8
Lithuania	-11.7	-33.3
Luxembourg	-13.3	12.0
Netherlands	25.2	25.3
Portugal	-25.3	2.3
Romania	-81.3	-78.4
Slovak Republic	-11.2	-25.8
Slovenia	19.2	20.8
Spain	-11.2	4.6
Sweden	3.7	2.7
United Kingdom	15.1	17.5

Table A51: Schooling, immigration and schools >10% (European average shares) - Science

	Unconditional	Conditional
Austria	11.2	10.7
Belgium	10.7	17.8
Czech Republic	13.2	-4.2
Denmark	-3.7	-12.2
Estonia	31.8	15.0
Finland	63.7	47.5
France	-4.4	2.8
Germany	16.0	21.4
Greece	-26.3	-23.1
Hungary	4.3	-5.0
Ireland	8.7	9.0
Italy	-24.2	-18.8
Latvia	-10.1	-20.7
Lithuania	-11.7	-35.8
Luxembourg	-13.3	30.3
Netherlands	25.2	21.8
Portugal	-25.3	5.9
Romania	-81.3	-78.8
Slovak Republic	-11.2	-26.1
Slovenia	19.2	18.0
Spain	-11.2	5.1
Sweden	3.7	2.4
United Kingdom	15.1	17.1

Table A52: Schooling (European average shares) - Math

	Unconditional	Conditional
Austria	11.0	5.0
Belgium	25.9	30.8
Czech Republic	15.4	2.5
Denmark	18.6	13.7
Estonia	20.1	11.2
Finland	53.9	45.0
France	1.1	12.8
Germany	9.3	10.0
Greece	-35.3	-31.0
Hungary	-3.5	-7.3
Ireland	7.0	11.3
Italy	-32.8	-24.7
Latvia	-8.3	-19.7
Lithuania	-8.0	-24.6
Luxembourg	-4.5	10.9
Netherlands	36.2	38.9
Portugal	-28.3	-0.7
Romania	-79.7	-85.6
Slovak Republic	-2.4	-19.8
Slovenia	10.0	10.0
Spain	-14.5	0.8
Sweden	7.9	4.6
United Kingdom	1.0	5.6

Table A53: Schooling and immigration (European average shares) - Math

	Unconditional	Conditional
Austria	11.0	9.6
Belgium	25.9	34.5
Czech Republic	15.4	-0.1
Denmark	18.6	13.3
Estonia	20.1	9.8
Finland	53.9	40.8
France	1.1	11.8
Germany	9.3	11.5
Greece	-35.3	-31.3
Hungary	-3.5	-9.0
Ireland	7.0	9.2
Italy	-32.8	-26.2
Latvia	-8.3	-20.9
Lithuania	-8.0	-27.6
Luxembourg	-4.5	17.6
Netherlands	36.2	38.5
Portugal	-28.3	-0.2
Romania	-79.7	-79.4
Slovak Republic	-2.4	-23.2
Slovenia	10.0	10.2
Spain	-14.5	0.9
Sweden	7.9	5.6
United Kingdom	1.0	4.6

Table A54: Schooling, immigration and schools >10% (European average shares) - Math

	Unconditional	Conditional
Austria	11.0	11.9
Belgium	25.9	36.7
Czech Republic	15.4	-3.2
Denmark	18.6	12.3
Estonia	20.1	0.3
Finland	53.9	38.8
France	1.1	8.4
Germany	9.3	15.4
Greece	-35.3	-31.2
Hungary	-3.5	-12.3
Ireland	7.0	8.3
Italy	-32.8	-27.2
Latvia	-8.3	-21.0
Lithuania	-8.0	-28.9
Luxembourg	-4.5	39.5
Netherlands	36.2	34.7
Portugal	-28.3	3.6
Romania	-79.7	-80.0
Slovak Republic	-2.4	-23.8
Slovenia	10.0	7.1
Spain	-14.5	1.2
Sweden	7.9	5.1
United Kingdom	1.0	4.1

Table A55: Schooling (European average shares) - Reading

	Unconditional	Conditional
Austria	5.2	-0.4
Belgium	15.9	21.3
Czech Republic	-2.3	-12.4
Denmark	9.5	4.4
Estonia	15.8	1.8
Finland	61.9	50.6
France	2.7	13.2
Germany	10.0	8.6
Greece	-25.3	-22.0
Hungary	-2.6	-7.6
Ireland	32.3	36.3
Italy	-16.4	-9.0
Latvia	-5.5	-14.2
Lithuania	-14.9	-32.2
Luxembourg	-5.6	10.7
Netherlands	21.8	24.0
Portugal	-12.7	17.6
Romania	-89.0	-94.3
Slovak Republic	-18.6	-34.1
Slovenia	9.4	10.4
Spain	-24.1	-9.1
Sweden	22.3	21.5
United Kingdom	10.1	14.9

Table A56: Schooling and immigration (European average shares) - Reading

	Unconditional	Conditional
Austria	5.2	3.2
Belgium	15.9	24.5
Czech Republic	-2.3	-15.7
Denmark	9.5	3.9
Estonia	15.8	2.3
Finland	61.9	47.7
France	2.7	11.6
Germany	10.0	9.9
Greece	-25.3	-22.9
Hungary	-2.6	-10.8
Ireland	32.3	33.6
Italy	-16.4	-10.9
Latvia	-5.5	-15.7
Lithuania	-14.9	-34.9
Luxembourg	-5.6	19.3
Netherlands	21.8	23.2
Portugal	-12.7	18.9
Romania	-89.0	-86.0
Slovak Republic	-18.6	-37.8
Slovenia	9.4	10.2
Spain	-24.1	-9.1
Sweden	22.3	21.9
United Kingdom	10.1	13.6

Table A57: Schooling, immigration and schools >10% (European average shares) - Reading

	Unconditional	Conditional
Austria	5.2	6.9
Belgium	15.9	27.4
Czech Republic	-2.3	-19.8
Denmark	9.5	3.4
Estonia	15.8	-11.6
Finland	61.9	46.7
France	2.7	8.3
Germany	10.0	14.1
Greece	-25.3	-22.4
Hungary	-2.6	-13.6
Ireland	32.3	34.5
Italy	-16.4	-11.3
Latvia	-5.5	-16.8
Lithuania	-14.9	-37.4
Luxembourg	-5.6	38.2
Netherlands	21.8	19.1
Portugal	-12.7	22.1
Romania	-89.0	-86.1
Slovak Republic	-18.6	-38.0
Slovenia	9.4	9.1
Spain	-24.1	-7.9
Sweden	22.3	21.7
United Kingdom	10.1	13.6