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CONSIDERATIONS ABOUT THE IMPORTANCE OF
EDUCATION
AFTER THE FIRST WAVE OF COVID-19

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Motivation

- Worldwide, school closures due to the pandemic affected at least 63 million primary and secondary school teachers (TTF, 2020).
- **Younger children** are more likely to find self-directed learning difficult, while for **older students**, the inability to attend classes and access study material can lead to frustration, and cancelled assessments can also dent students' extrinsic motivation (Elikai and Schuhmann, 2019). Without structured school routine, and frequent contact and support from teachers and peers, students on the dropout path may become even more disengaged (OECD, 2020c).
- Beyond learning, **home environments** are critical to student well-being. The pandemic-induced negative economic impact on households may further compromise students' school engagement, especially in low-income settings. The literature has shown that, in general, in high- and middle-income countries, enrolment tends to improve during recessions. However, in **low-income countries**, enrolment rates tend to deteriorate in the face of negative income shocks (Ferreira and Schady, 2009).

Motivation

- **Parental support** add another layer to educational inequality. Distance learning strategies shift the burden of learning onto families, making student learning outcomes dependent on the home environment and the time parents are able to invest in their children's learning (Sayer al., 2004).
- **Better educated parents** are potentially better positioned to help their children with homework (Holmlund et al., 2008). Shonkoff and Meisels (2000) show that strengthening and improving parental involvement through closer collaboration and networking improves parenting skills and benefits children. Studies focusing on **parent-school engagement** show that close engagement is a factor that improves student motivation and helps children acquire good quality education and training (Spera, 2005).
- The **objective** of this paper is to analyze the **effects of the Covid-19 pandemic on the consideration of the importance of education in the society.** While other studies refer to academic performance, continuity of studies, availability of technical means or teacher training, this paper will focus on the variable "importance given to education".

Data

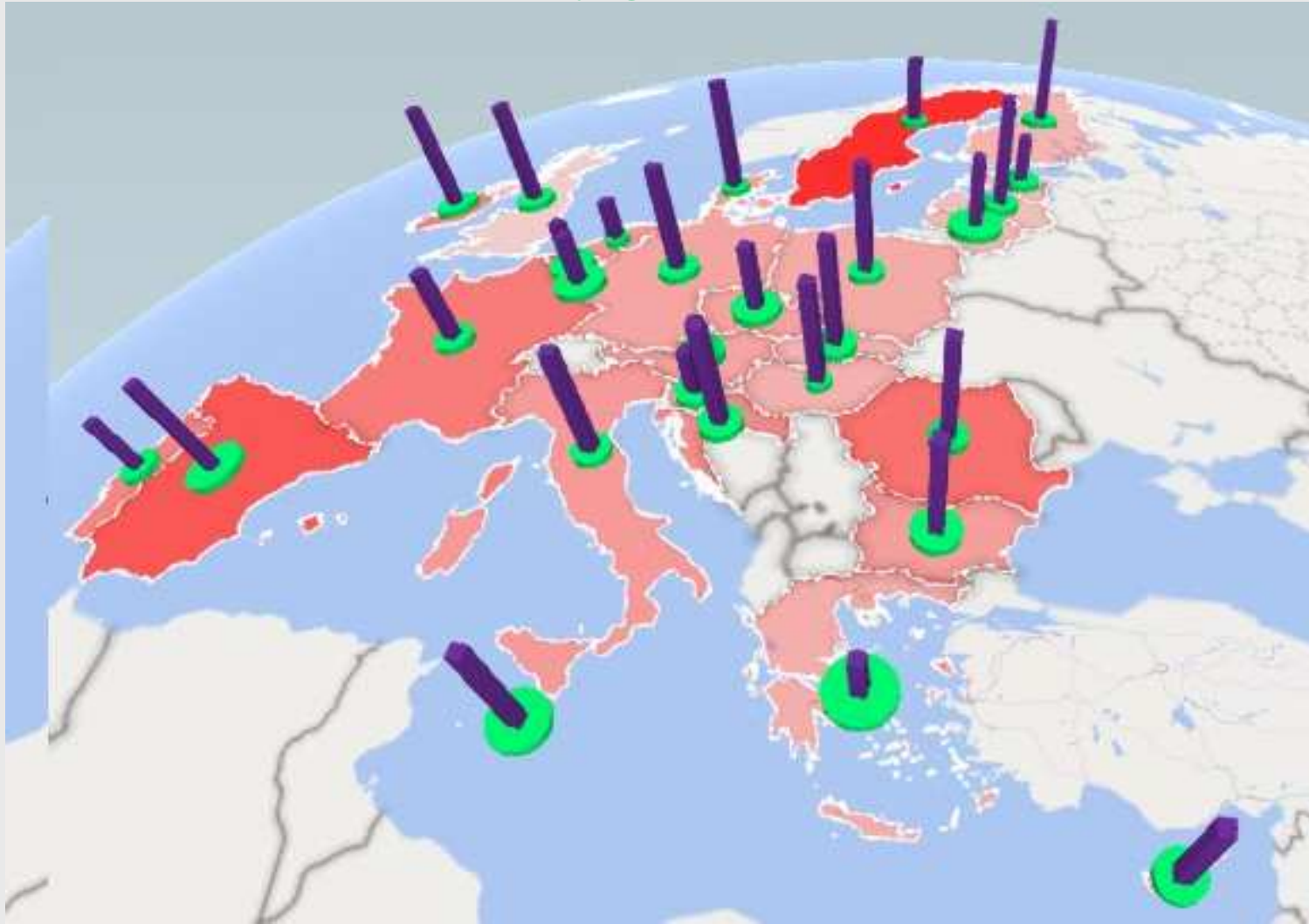
Eurobarometers (EB): the EB91.5 conducted between **June and July 2019** and the EB93.1 conducted between **July and August 2020**.

- EB surveys are conducted on behalf of the **European Commission** under the responsibility of the Directorate-General Communication.
- The final sample consists of **32,524** observations for 2019 and **33,059** for 2020.

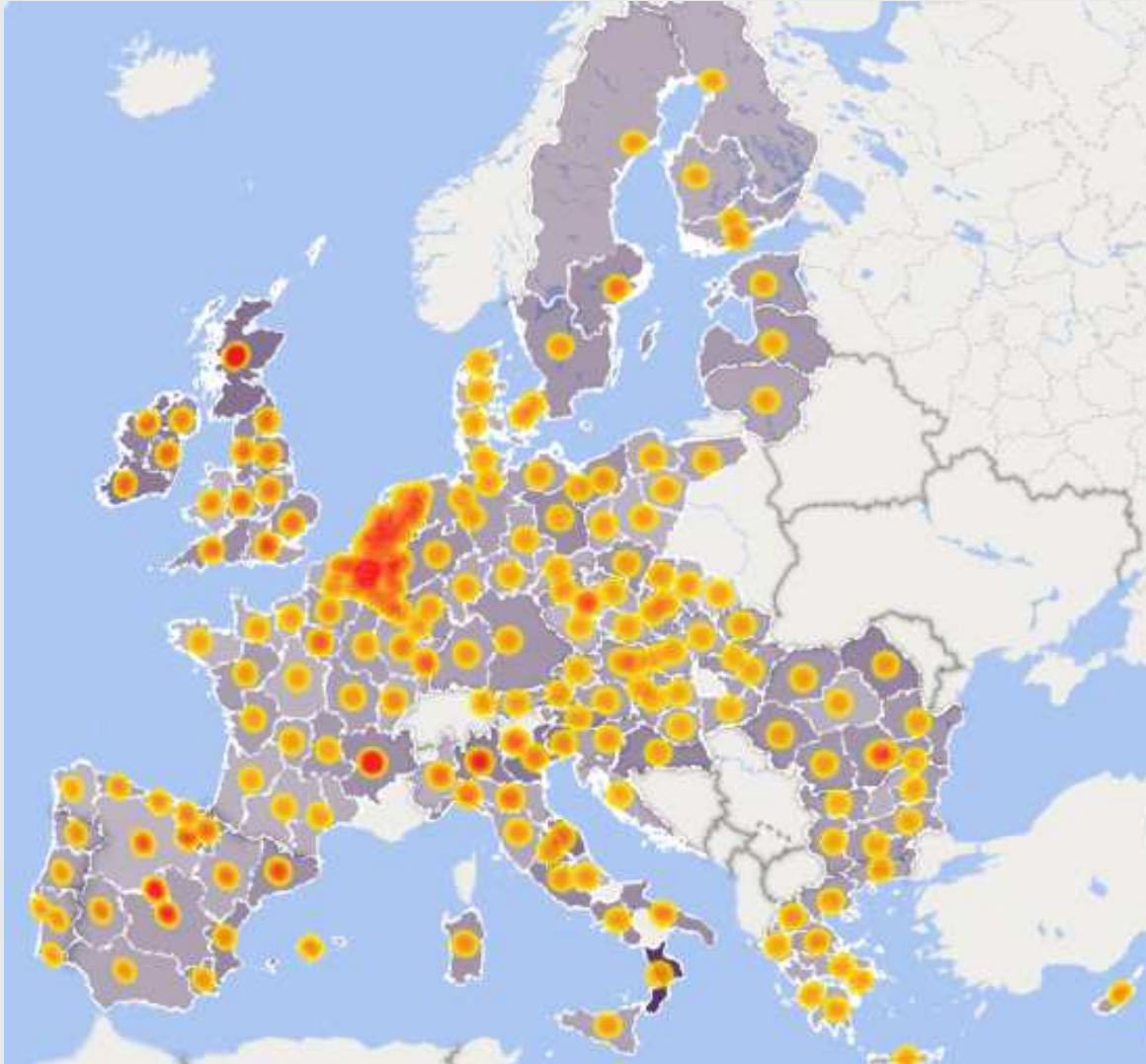
Dependent variables

- ❑ **EDUC_country**: 1 if respondent believes that “the education system” is one of the country most important concerns (taking the perspective of policymakers).
- ❑ **EDUC_personal**: 1 if respondent mentions “the education system” as one his/her most important personal concerns.

Relationship among **average notification rate of Covid-19 cases (red areas)**, **closure of schools/universities (purple bricks)** and **concern about education in the country (green circles)**.



Relationship between degree of concern about education and overmortality in 2020.



Grey areas: percentage of people in each NUTS who state that one of their personal concerns is education.

Orange circles: excess mortality in 2020 over the 2015-2018 average.

Model

- $$EDUC_{irct} = \alpha_0 + \alpha_1 RM_{rct} + \alpha_2 Year(2020)_t + \alpha_3 RM_{rct} Year(2020)_t + \alpha_4 Schools_{ct} + \alpha_5 Notif_{rct} + \gamma' X_{irct} + \delta_r + \nu_c + \varepsilon_{irct}$$
 - $EDUC_{irct} = \{EDUC_country_{irct}, EDUC_personal_{irct}\}$

- RM_{rct} represents the **relative mortality of region (or NUT) r in year t (2019, 2020) with respect to the average 2015-2018**. Two possibilities have been considered in the estimations, as a binary variable (1 there is overmortality, 0 otherwise) or as a continuous variable.
- $Notif_{rct}$ **average of 14-day notification rate of newly reported COVID-19 cases** per 100,000 population in region r of country c and year 2020 (takes the value 0 for 2019),
- $Schools_{ct}$ is number **of closure school days** due to the pandemic in country c (takes the value 0 for 2019).
- $Year(2020)_t$ is an indicator variable equal to 1 if the individual is interviewed in 2020, 0 otherwise.
- X_{irct} contains individual-level variables: age, gender, nationality, marital status, relation with economic activity, age when stopped full-time education, household composition, having internet at home, difficulties in paying bills, self-reported level in society and size of municipality of residence.
- Regional and country fixed effects are captured by δ_r and ν_c , respectively. Robust standard errors are obtained with clusters at regional level.

Results

	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
All sample						
Notification rate	0.0002*** (0.0001)	0.0002 (0.0002)	0.0002*** (0.0001)	0.0003*** (0.0001)	0.0008*** (0.0002)	0.0001** (0.0001)
Days school closure	0.0002*** (0.0001)	0.0002** (0.0000)	0.0002*** (0.0001)	0.0000 (0.0000)	0.0005*** (0.0001)	0.0000 (0.0000)
Year(2020)	-0.0662*** (0.0075)	-0.0719*** (0.0178)	-0.0649*** (0.0082)	-0.0242*** (0.0063)	-0.0385** (0.0183)	-0.0188*** (0.0060)
Relative mortality	-0.0106*** (0.0038)	-0.0055 (0.0085)	-0.0120*** (0.0043)	-0.0073** (0.0032)	-0.0022 (0.0087)	-0.0070** (0.0031)
Relative mortality* Year(2020)	0.0072 (0.0057)	-0.0019 (0.0128)	0.0100 (0.0062)	0.0117** (0.0047)	0.0118*** (0.0045)	0.0033 (0.0132)
N	54402	13363	41039	54402	13363	41039
R2	0.0192	0.0172	0.0170	0.0449	0.0377	0.0221
F	354.183	86.447	262.037	852.317	193.257	342.748
p-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Results

Working class	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	-0.0003** (0.0001)	-0.0006 (0.0003)	-0.0002 (0.0001)	0.0002* (0.0001)	0.0001** (0.0000)	0.0001 (0.0001)
Days school closure	0.0001 (0.0001)	-0.0002 (0.0003)	0.0002** (0.0001)	0.0001* (0.0001)	0.0003 (0.0003)	0.0001* (0.0001)
Relative mortality* Year(2020)	-0.0165* (0.0088)	-0.0210*** (0.0054)	-0.0034 (0.0233)	0.0033 (0.0067)	-0.0297*** (0.0027)	0.0084 (0.0059)
Middle class	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	0.0003*** (0.0001)	0.0004* (0.0002)	0.0003** (0.0001)	0.0003*** (0.0001)	0.0007*** (0.0002)	0.0001 (0.0001)
Days school closure	0.0003*** (0.0001)	0.0003** (0.0002)	0.0002*** (0.0001)	0.0000 (0.0001)	0.0002 (0.0002)	-0.0000 (0.0001)
Relative mortality* Year(2020)	0.0104 (0.0070)	0.0095 (0.0151)	0.0108 (0.0078)	0.0197*** (0.0058)	0.0269*** (0.0054)	0.0119** (0.0058)
Higher class	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	0.0011*** (0.0003)	0.0010 (0.0007)	0.0011*** (0.0003)	0.0005* (0.0003)	0.0012*** (0.0001)	0.0004 (0.0003)
Days school closure	0.0001 (0.0002)	0.0004 (0.0005)	-0.0000 (0.0002)	-0.0002 (0.0002)	-0.0005 (0.0005)	-0.0002 (0.0002)
Relative mortality* Year(2020)	0.0002 (0.0237)	0.0173 (0.0473)	-0.0094 (0.0277)	0.0456** (0.0220)	0.0776*** (0.0033)	0.0254 (0.0223)

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Difficulties making ends meet: always/almost always	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	0.0002 (0.0002)	0.0001 (0.0005)	0.0002 (0.0003)	0.0002 (0.0002)	0.0007 (0.0005)	0.0000 (0.0002)
Days school closure	0.0004** (0.0002)	0.0005 (0.0003)	0.0003** (0.0002)	0.0000 (0.0001)	-0.0003 (0.0003)	0.0002 (0.0001)
Relative mortality* Year(2020)	-0.0149 (0.0141)	-0.0298 (0.0313)	-0.0088 (0.0157)	-0.0459 (0.0112)	-0.0435*** (0.0089)	-0.0016 (0.0112)
Difficulties making ends meet: often	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	0.0000 (0.0002)	-0.0003 (0.0004)	0.0001 (0.0002)	0.0006*** (0.0001)	0.0011*** (0.0004)	0.0004*** (0.0001)
Days school closure	0.0002* (0.0001)	0.0002 (0.0002)	0.0002* (0.0001)	0.0001 (0.0001)	0.0001 (0.0002)	0.0001 (0.0001)
Relative mortality* Year(2020)	0.0112 (0.0094)	0.0235 (0.0210)	0.0068 (0.0103)	0.0023 (0.0082)	0.0004 (0.0208)	-0.0023 (0.0080)
Difficulties making ends meet: never/almost never	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	0.0003*** (0.0001)	0.0003 (0.0002)	0.0003** (0.0001)	0.0002** (0.0001)	0.0006*** (0.0001)	0.0001 (0.0001)
Days school closure	0.0001** (0.0001)	0.0002 (0.0002)	0.0001* (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0002)	-0.0001 (0.0001)
Relative mortality* Year(2020)	0.0186** (0.0074)	0.0208*** (0.0061)	0.0109 (0.0171)	0.0240*** (0.0061)	0.0239*** (0.0051)	0.0197*** (0.0058)

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Results

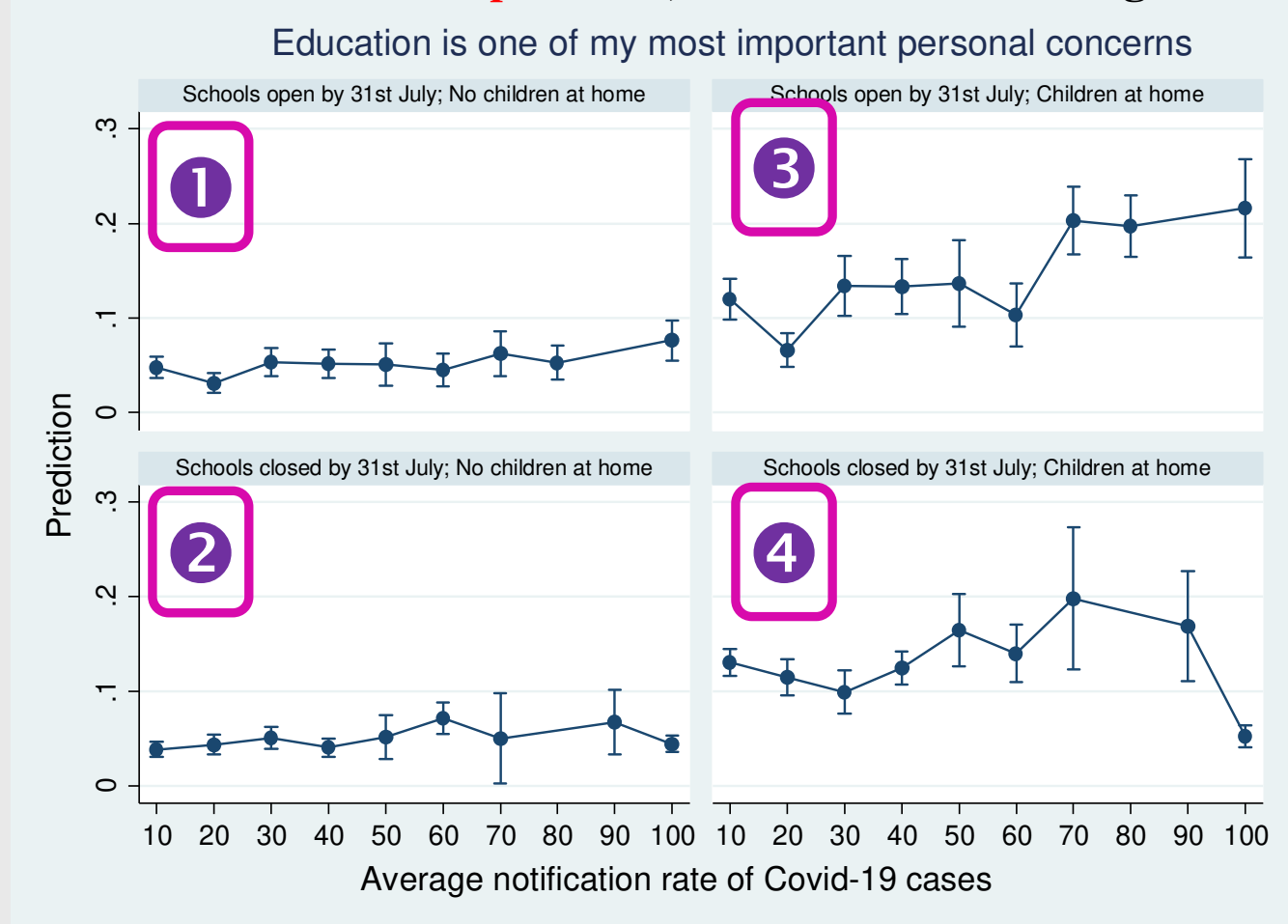
Foreign	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	0.0003 (0.0006)	0.0009 (0.0013)	0.0001 (0.0006)	0.0002 (0.0005)	0.0010 (0.0012)	-0.0002 (0.0005)
Days school closure	0.0000 (0.0004)	-0.0006 (0.0009)	0.0005 (0.0005)	-0.0007* (0.0004)	-0.0011 (0.0008)	-0.0001 (0.0004)
Relative mortality* Year(2020)	-0.0091 (0.0448)	-0.1429 (0.0999)	0.0459 (0.0502)	-0.0602 (0.0389)	-0.0155*** (0.0028)	-0.0872** (0.0417)
Unemployed	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	-0.0005** (0.0003)	-0.0002 (0.0006)	-0.0006** (0.0003)	-0.0002 (0.0002)	-0.0005 (0.0006)	-0.0001 (0.0002)
Days school closure	0.0002 (0.0002)	0.0000 (0.0004)	0.0003 (0.0002)	0.0003** (0.0002)	0.0007*** (0.0002)	0.0002 (0.0002)
Relative mortality* Year(2020)	0.0048 (0.0190)	-0.0073 (0.0374)	0.0045 (0.0220)	-0.0223 (0.0159)	-0.0256*** (0.0061)	-0.0215 (0.0165)
Still studying	EDUC_country			EDUC_personal		
	All sample	Living with children	Not living with children	All sample	Living with children	Not living with children
Notification rate	0.0000 (0.0004)	0.0006 (0.0007)	-0.0002 (0.0004)	-0.0007 (0.0004)	0.0004*** (0.0001)	-0.0011** (0.0005)
Days school closure	0.0006** (0.0003)	0.0002 (0.0006)	0.0007** (0.0003)	-0.0007** (0.0003)	0.0004 (0.0007)	-0.0010*** (0.0004)
Relative mortality* Year(2020)	-0.0672** (0.0280)	-0.1055* (0.0581)	-0.0640** (0.0321)	0.0028 (0.0333)	0.0571*** (0.0092)	-0.0132 (0.0383)

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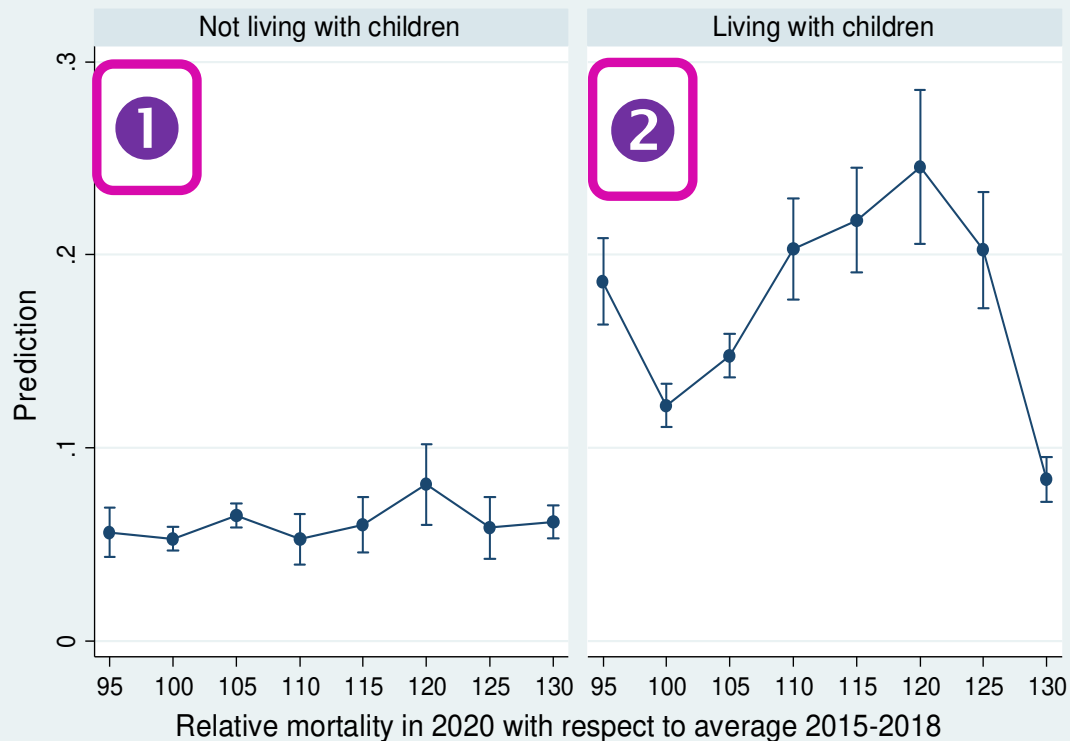
Effect of **average notification rate of Covid-19 new cases per 100,000 inhabitants** with respect and school closure over ***EDUC_personal***, conditioned on having children or not



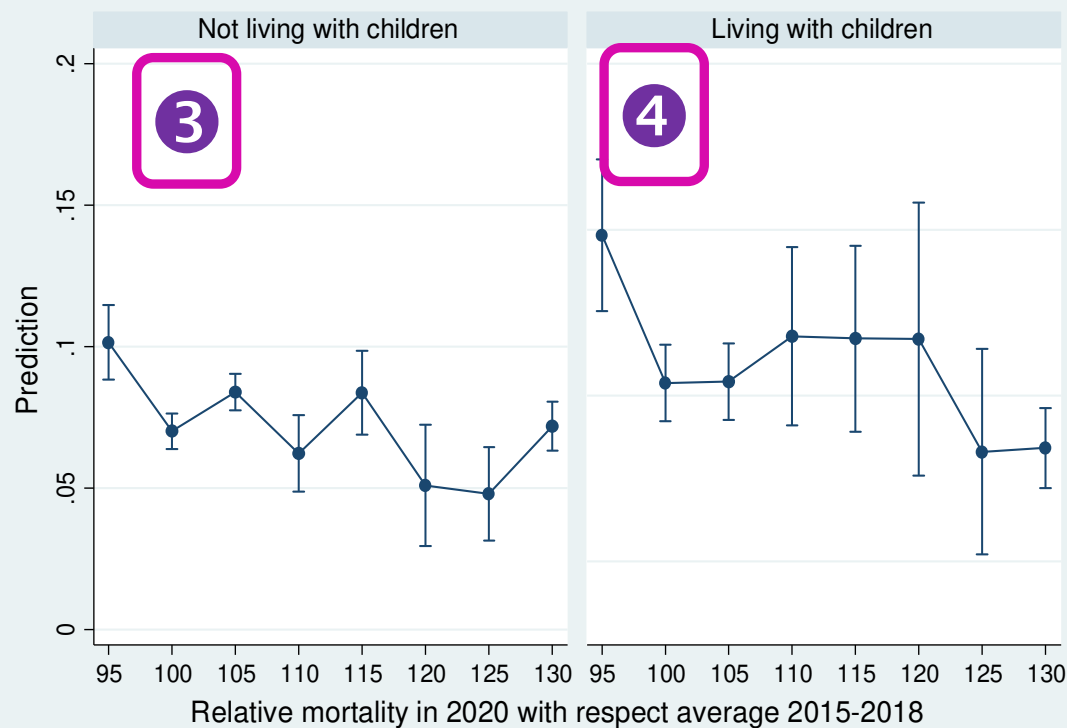
In these figures a binary version of the variable “days of school closure” has been defined, that takes the value 1 if schools/universities had opened by 31st July and the value 0 if they were still closed.

Effect of *relative mortality (RM)* in 2020 with respect to average 2015-2019 over *EDUC_country* and *EDUC_personal*

Education is one of my most important personal concerns



Education is one of the most important concerns of my country



In these figures a binary version of the variable “days of school closure” has been defined, that takes the value 1 if schools/universities had opened by 31st July and the value 0 if they were still closed.

CONCLUSIONS

The pandemic seems to be generating two independent and disconnected worlds.

The importance attached to education has declined among the **immigrant** population, those who consider themselves **working class, unemployed** and those who find it very difficult to make ends meet. In contrast, concern for education has increased among those who **are still studying**, have higher education, are working (especially if they are white-collar).

Parents with better economic status and more stable jobs have been able to invest more in their children's education during the pandemic and have become more involved in their children's learning. This difference in results may be attributed to the fact that **economic concerns** have become more prominent in some population groups, but regardless of this, there is a common result.

Both groups **do not consider education or the education system to be one of the country's top priorities**, or even, in some cases, those who are still students, consider that public policies have neglected education.

CONCLUSIONS

- Are these changes a consequence of the pandemic and the economic crisis, or has the pandemic simply exacerbated a previous trend?
- What will the long-term effects be?
- Will this shift in priorities affect children's educational outcomes?

All these questions provide a very relevant starting point for further research.

Thanks for your attention

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