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## Long-lasting impact of education on individual extreme confinement choice among 50+ during the first wave of the COVID-19 pandemic

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# Long-lasting impact of education on individual extreme confinement choice among 50+ during the first wave of the COVID-19 pandemic<sup>†</sup>

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August 30, 2021

#### Abstract

This paper studies the long-run impact of education on individual strict confinement choice in Europe during the first wave of the COVID-19 pandemic among 50+. We do so by using the SHARE Corona Survey conducted in Summer 2020. First, we show that almost 20 percent of individuals chose always staying home during the first wave of Corona. On average, they were in worse health before the outbreak and more likely to experience mental health deterioration after the outbreak. Next, using changes in compulsory schooling reforms as an instrumental variable, we document that one year less of schooling increases the probability of always staying home since the outbreak. Mediators such as individual health before the outbreak can only partially explain the impact of schooling on this extreme degree of self-isolation. Changes in countryspecific confinement measures do not attenuate this effect.

JEL codes: I12, I2

Keywords: education, self-isolation, COVID-19, SHARE

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### 1. INTRODUCTION

From the beginning of the outbreak of the SARS-CoV-2 virus, people were encouraged to minimize in-person contacts to reduce the number of contagions. However, self-isolation, the fear of contagions, and adopted measures are unlikely to affect all members of society equally.

In this paper, we study the long-lasting impact of education on individual strict confinement choice during the first wave of the COVID-19 pandemic among 50+ in Europe. The main variable under analysis captures the extreme degree of self-isolation that some individuals chose. The principal goal is to understand how individuals with different schooling changed their probability of never leaving home during the outbreak of Corona. By answering this question, we provide evidence about how the outbreak affected the behavior of individuals differently. Thus, this analysis informs future policies that aim at mitigating the adverse impact of the COVID-19 pandemic on 50+.

To answer the research question, we use the Survey of Health Aging and Retirement in Europe (SHARE) and SHARE Corona Survey conducted after the first wave of the COVID-19 pandemic. The identification strategy is a two-stage least squares. To instrument education, we use the years of compulsory schooling, which exploits reforms in 21 European countries. This instrument has been widely used in the literature: Brunello, Fort, and Weber (2009); Crespo, López-Noval, and Mira (2014); Gathmann, Jürges, and Reinhold (2015); Hofmarcher (2021); Kämpfen and Maurer (2018). Accordingly, we construct the variation in educational reforms in line with previous scholars.

First, we find that 20 percent of individuals in our sample always stayed home during the first wave of the pandemic. On average, they are older, have worse health and low household income before the outbreak, and have low early-life socioeconomic status (SES). Importantly, they also are more likely to experience mental health deterioration after the first wave of the pandemic. Next, we document that schooling impacts the choice of always staying home. In particular, one year less of schooling increases by 30 percent the probability of always staying home since the outbreak of Corona until Summer 2020. When we control for variables that can mediate this effect, like baseline health, income, lockdown duration, or the number of COVID-19 infections, the impact remains statistically significant and reduces to 25 percent.

This paper relates to the literature about the long-run effects of education on individual outcomes. Previous scholars studied its impact on inequality (Brunello et al., 2009), depression (Crespo et al., 2014), mortality (Gathmann et al., 2015), and poverty (Hofmarcher, 2021). Evidence about the impact of education on health outcomes is mixed (Fonseca Benito & Zheng, 2011; Hamad, Elser, Tran, Rehkopf, & Goodman, 2018). Accordingly, with this paper, we contribute to the existent studies by showing that education continues to impact individuals' extreme confinement behavior during the outbreak of Corona.

#### 2. DATA

This study uses SHARE and SHARE Corona Survey.<sup>1</sup> The Corona Survey is a telephone survey conducted between May and August 2020 to estimate the first impact of the Corona outbreak on individuals above 50 years old in Europe.<sup>2</sup> We also use variables from previous waves exploiting the longitudinal dimension of SHARE.

The main outcome variable is always staying home, *always-stayed-home*. All respondents receive a question about whether they have left home since the outbreak. If re-

<sup>&</sup>lt;sup>1</sup>This paper uses data from SHARE Waves 1, 2, 3, 4, 5, 6, 7 and 8 (DOIs: 10.6103/SHARE.w1.710, 10.6103/SHARE.w2.710, 10.6103/SHARE.w3.710, 10.6103/SHARE.w4.710, 10.6103/SHARE.w5.710, 10.6103/SHARE.w6.710, 10.6103/SHARE.w7.711, 10.6103/SHARE.w8.100, 10.6103/SHARE.w8ca.100, 10.6103/SHARE.w8caintd.100), see Börsch-Supan et al. (2013) for methodological details. The SHARE data collection has been funded by the European Commission through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812), FP7 (SHARE-PREP: GA N°211909, SHARE-LEAP: GA N°227822, SHARE M4: GA N°261982, DASISH: GA N°283646) and Horizon 2020 (SHARE-DEV3: GA N°676536, SHARE-COHESION: GA N°870628, SERISS: GA N°654221, SSHOC: GA N°823782) and by DG Employment, Social Affairs & Inclusion. Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the U.S. National Institute on Aging (U01 AG09740-13S2, P01 AG005842, P01 AG08291, P30 AG12815, R21 AG025169, Y1-AG-4553-01, IAG BSR06-11, OGHA 04-064, HHSN271201300071C) and from various national funding sources is gratefully acknowledged (see www.share-project.org). See Börsch-Supan et al. (2013), Börsch-Supan (2020a), Börsch-Supan (2020b), Börsch-Supan (2020c), Börsch-Supan (2020d), Börsch-Supan (2020e), Börsch-Supan (2020f), Börsch-Supan (2020g), Börsch-Supan (2021c), Börsch-Supan (2021b), Börsch-Supan (2021a) for methodological details.

 $<sup>^2 \</sup>mathrm{Scherpenzeel}$  et al. (2020) provide details about SHARE Wave 8 COVID-19 data.

spondents answer "No" to this question, we assume that they always stayed home, and always-stayed-home equals to 1.

The main endogenous variable is years of schooling (*yeduc*), derived from previous SHARE waves. The instrumental variable corresponds to the years of compulsory schooling (*ycomp*), which is based on educational reforms implemented in 21 European countries in the 20th century. In line with Crespo et al. (2014), we consider respondents' age at their drop-out year to compute the first affected birth cohort. We enlarge sample in Brunello et al. (2009) and Crespo et al. (2014) by adding educational reforms from Hofmarcher (2021). Appendix A, Table A.1 summarizes the timing of educational reforms and potentially affected birth cohorts.

Next, we include childhood information to define individuals affected by changes in schooling reforms. we use a proxy for lower socioeconomic status (SES) in childhood (*lowSES10*) which is an indicator of living in a dwelling with two or fewer rooms at age 10. Other variables are taken from the SHARE Corona Survey.

The target sample includes 15854 individuals born seven years before or after the reform to isolate possible confounders occurring simultaneously with the timing of reforms. Table B.1 in Appendix B compares the profile of respondents who always stayed home during the first wave of the pandemic and left home at least once. These two groups are different in terms of predetermined characteristics. Individuals who always stayed home are, on average, older, have lower early-life SES, studied less, have more children, and more likely to be in poor health. There is also a substantial higher prevalence of having more mental health problems after the first wave of the pandemic among those who always stayed home.

## 3. METHODS

The main goal of the article is to estimate the effect of education on self-isolation behavior during the first wave of the COVID pandemic. The endogenous model (OLS) is

$$y_i = \beta yeduc_i + \gamma X_i + \varepsilon_i \tag{3.1}$$

where  $y_i$  is the outcome variable of each individual *i*,  $yeduc_i$  is years of schooling. A vector of control variables,  $X_i$ , includes constant, age, age squared, gender, living in a dwelling with two or fewer rooms at age 10, country fixed effects, country-specific linear year of birth trend.<sup>3</sup>  $\varepsilon_i$  is the error term.

To get a causal estimate, we apply a two-stage least squares design (2SLS), exploiting the variations in the timing of compulsory schooling across countries and birth cohorts. Since not all individuals change their education decision as a response to an increase in compulsory schooling, we focus on the group of compliers who increase schooling as a result of the reform. Similar to Crespo et al. (2014), we add an interaction between schooling and a proxy for lower SES at age 10. Accordingly, the first stage regression is

$$yeduc_i = \alpha_1 ycomp_i + \alpha_2 ycomp_i * low SES10_i + \delta X_i + u_i$$

$$[3.2]$$

where  $ycomp_i$  is years of compulsory schooling effective for each individual in the country of residence and  $lowSES10_i$  is living in a dwelling with two or fewer rooms at age 10.  $u_i$ is the error term. Since the instrument varies across the year of births and countries, we cluster standard errors at a corresponding level.

## 4. **RESULTS**

Table 1 documents findings from OLS and 2SLS specifications. In all cases, the sign of coefficients in OLS and 2SLS coincides. However, the absolute value of estimates is always

<sup>&</sup>lt;sup>3</sup>Results are robust to the quadratic age trend.

larger in 2SLS compared to OLS. To exploit the difference between men and women, we add two instruments: compulsory schooling and its interaction with the potentially lower economic condition at age 10 interacted with gender.

Table 1 shows that one year less of schooling increases by about 5 ppt (or 30 percent) the probability of always staying home during the first wave of the pandemic (column 2). The estimate is statistically significant at 1 percent. There is heterogeneity in the impact of education across gender: women are particularly affected by schooling as the probability of always staying home drops for them from 5 to 6 ppt (column 4 in Table 1).<sup>4</sup>

 Table 1: Impact of schooling on always staying home during the first wave of the COVID-19

 pandemic

	OLS $(1)$	2SLS $(2)$	OLS (3)	2SLS $(4)$
Dep. var.: Probability	of always sta	iying home d	uring the first	wave
Years of education	-0.00912***	$-0.0514^{***}$	-0.00523***	-0.0440**
	(0.000947)	(0.0183)	(0.00108)	(0.0195)
Education x Female			-0.00712***	-0.0120**
			(0.00146)	(0.00581)
Mean dep. var.		0.184		0.184
F-test (IV)		17.377		8.656

*Note*: Number of observations is 15854. Standard errors are clustered at a year of birth - country level. The list of controls explained in the text. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

In total, one out of five individuals report always staying home, and this group substantially differs in terms of observables. We see that individuals with less education were more likely to adopt the most extreme self-isolation behavior after the outbreak of Corona. But how much of this impact can be explained by predetermined differences between two groups? To answer this question, we perform a mediation analysis similar to Kämpfen and Maurer (2018); Oreopoulos and Salvanes (2011). In Table 2, in column 1, we report the baseline model, and the estimate of education on each potential mediator separately. Columns 2-9 report the results of the main model controlling for extra variables. The estimates of education in columns 2-9 cannot be interpreted in a causal way because at

<sup>&</sup>lt;sup>4</sup>Results remain the same restricting to seven countries and related schooling reforms that more often have been used: Austria, Germany, Sweden, Spain, Italy, France, and Denmark. Tables are available upon request.

least one independent variable is endogenous.<sup>5</sup> Still, this analysis directly addresses the potential pathways of the effect.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Impact of education on:									
Always stayed home	$-0.0514^{***}$ (0.0183)	$-0.0572^{***}$ (0.0208)	$-0.0515^{***}$ (0.0180)	$-0.0437^{**}$ (0.0181)	$-0.0505^{**}$ (0.0205)	$-0.0514^{***}$ (0.0183)	$-0.0515^{***}$ (0.0184)	$-0.0505^{***}$ (0.0174)	$-0.0465^{**}$ (0.0218)
Easily ends meet during Corona	$0.0591^{***}$ (0.0182)	yes							yes
Employed during Corona	-0.00693 (0.0104)		yes						yes
Self-perceived poor health before Corona	-0.0539** (0.0224)			yes					yes
Number of children	-0.304*** (0.0840)				yes				yes
COVID infections per $100.000^a$	-0.341 (1.352)					yes			yes
Stay-at-home requirements $^a$	-0.0448 (0.273)						yes		yes
Changes in Google mobility $\operatorname{tracker}^{b}$	-0.0264 (0.0439)							yes	yes
Ν	15854	15460	15835	15846	15841	15854	15854	15629	15213

Table 2: Mediation exercise: impact of education on always staying home and potential mediators

Note: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Standard errors are clustered at a year of birth - country level. The list of controls explained in the text. Columns 2-8 control further for each additional variable separately, and column 9 pools them all. <sup>a</sup> OxCGRT. Number of infections due to Covid-19 per 100.000 and duration of stay-at-home requirements refer to the period since February

1, 2020 and before the day of interview across countries.

 $^{b}$  Google Mobility Report. This change refers to an average change in residential mobility from February 1, 2020, until the day of the interview in each country.

As expected, additional schooling increases the probability of easily making ends meet during the outbreak of Corona, which is in line with an overall positive impact of education on income. Next, schooling did not affect labor participation since the outbreak. In terms of predetermined characteristics, one additional year of education leads to lower fertility and a lower probability of perceiving poor health status before the outbreak. Finally, to capture the evolution of pandemic across countries, we match the date of respondent's interview with daily information from the Oxford Covid-19 Government Response Tracker (OxCGRT) and the Google Mobility Report.<sup>6</sup> We see no effect of education on COVIDrelated factors.

Columns 2-9 show that the impact of schooling on always staying home since the outbreak remains significant and similar in magnitude after controlling for all potential mediators. In particular, the intensity of the first wave of the pandemic, the number of COVID infections, and the duration of lockdown do not attenuate the main estimate of

<sup>&</sup>lt;sup>5</sup>Refer to Kämpfen and Maurer (2018); Oreopoulos and Salvanes (2011) for details.

<sup>&</sup>lt;sup>6</sup>Refer to https://github.com/OxCGRT/covid-policy-tracker/blob/master/documentation/ codebook.md and https://www.google.com/covid19/mobility/

always staying home (columns 6-8).

## 5. CONCLUSION

This paper studies how self-isolation behavior changed among 50+ during the first wave of the COVID pandemic in Europe. First, we show that 20 percent of individuals report always staying home during the first wave of Corona. Next, using changes in compulsory schooling years across birth cohorts as an instrumental variable, we document that one year less of schooling increases the probability of always staying home since the outbreak. The overall protective impact of education on health can only partially explain this change in extreme mobility restriction since the outbreak. Country-specific Covid policies do not explain this effect.

## References

Börsch-Supan, A. (2020a). Survey of Health, Ageing and Retirement in Europe (SHARE)
Wave 1. Release version: 7.1.0. SHARE-ERIC. Data set.
doi:10.6103/SHARE.w1.710

Börsch-Supan, A. (2020b). Survey of Health, Ageing and Retirement in Europe (SHARE)
Wave 2. Release version: 7.1.0. SHARE-ERIC. Data set.
doi:10.6103/SHARE.w2.710

- Börsch-Supan, A. (2020c). Survey of Health, Ageing and Retirement in Europe (SHARE)
  Wave 3 SHARELIFE. Release version: 7.1.0. SHARE-ERIC. Data set.
  doi:10.6103/SHARE.w3.710
- Börsch-Supan, A. (2020d). Survey of Health, Ageing and Retirement in Europe (SHARE)
  Wave 4. Release version: 7.1.0. SHARE-ERIC. Data set.
  doi:10.6103/SHARE.w4.710
- Börsch-Supan, A. (2020e). Survey of Health, Ageing and Retirement in Europe (SHARE)
  Wave 5. Release version: 7.1.0. SHARE-ERIC. Data set.
  doi:10.6103/SHARE.w5.710
- Börsch-Supan, A. (2020f). Survey of Health, Ageing and Retirement in Europe (SHARE)
  Wave 6. Release version: 7.1.0. SHARE-ERIC. Data set.
  doi:10.6103/SHARE.w6.710
- Börsch-Supan, A. (2020g). Survey of Health, Ageing and Retirement in Europe (SHARE)
  Wave 7. Release version: 7.1.1. SHARE-ERIC. Data set.
  doi:10.6103/SHARE.w7.711
- Börsch-Supan, A. (2021a). Survey of Health, Ageing and Retirement in Europe (SHARE)Wave 8. COVID-19 Survey 1 interview date. Release version: 1.0.0. SHARE-ERIC.Data set.

doi:10.6103/SHARE.w8caintd.100

Börsch-Supan, A. (2021b). Survey of Health, Ageing and Retirement in Europe (SHARE)Wave 8. COVID-19 Survey 1. Release version: 1.0.0. SHARE-ERIC. Data set.

doi:10.6103/SHARE.w8ca.100

- Börsch-Supan, A. (2021c). Survey of Health, Ageing and Retirement in Europe (SHARE)
  Wave 8. Release version: 1.0.0. SHARE-ERIC. Data set.
  doi:10.6103/SHARE.w8.100
- Börsch-Supan, A., Brandt, M., Hunkler, C., Kneip, T., Korbmacher, J., Malter, F., ... Zuber, S. (2013). Data resource profile: the Survey of Health, Ageing and Retirement in Europe (SHARE). *International journal of epidemiology*, 42(4), 992–1001. doi:10.1093/ije/dyt088
- Brunello, G., Fort, M., & Weber, G. (2009). Changes in compulsory schooling, education and the distribution of wages in Europe. *Economic Journal*, 119(536), 516–539. doi:10.1111/j.1468-0297.2008.02244.x
- Crespo, L., López-Noval, B., & Mira, P. (2014). Compulsory schooling, education, depression and memory: New evidence from SHARELIFE. *Economics of Education Review*, 43, 36–46. doi:10.1016/j.econedurev.2014.09.003
- Fonseca Benito, R., & Zheng, Y. (2011). The Effect of Education on Health: Cross-Country Evidence. doi:10.7249/wr864
- Gathmann, C., Jürges, H., & Reinhold, S. (2015). Compulsory schooling reforms, education and mortality in twentieth century Europe. Social Science and Medicine, 127, 74–82. doi:10.1016/j.socscimed.2014.01.037
- Hamad, R., Elser, H., Tran, D. C., Rehkopf, D. H., & Goodman, S. N. (2018). How and why studies disagree about the effects of education on health: A systematic review and meta-analysis of studies of compulsory schooling laws. *Social Science and Medicine*, 212, 168–178. doi:10.1016/j.socscimed.2018.07.016
- Hofmarcher, T. (2021). The effect of education on poverty: A European perspective. *Economics of Education Review*, 83(April), 102124. doi:10.1016/j.econedurev.2021.102124
- Kämpfen, F., & Maurer, J. (2018). Does education help "old dogs" learn "new tricks"? The lasting impact of early-life education on technology use among older adults. *Research Policy*, 47(6), 1125–1132. doi:10.1016/j.respol.2018.03.017

- Oreopoulos, P., & Salvanes, K. G. (2011). Priceless: The nonpecuniary benefits of schooling. Journal of Economic Perspectives, 25(1), 159–184. doi:10.1257/jep.25.1.159
- Scherpenzeel, A., Axt, K., Bergmann, M., Douhou, S., Oepen, A., Sand, G., ... Börsch-Supan, A. (2020). Collecting survey data among the 50+ population during the COVID-19 pandemic: The Survey of Health, Ageing and Retirement in Europe (SHARE). Survey Research Methods, 14(2), 217–221. doi:10.18148/srm/2020.v14i2.7738

Appendix: "Long-lasting impact of education on individual extreme confinement choice among 50+ during the first wave of the COVID-19 pandemic"

## A. Educational reforms

We combine information from Brunello et al. (2009), Crespo et al. (2014) and Hofmarcher (2021) to construct changes in years of compulsory schooling and potentially affected cohorts. A comprehensive description of educational reforms can be found in Brunello et al. (2009) and Hofmarcher (2021). The first cohort potentially affected cohort is defined at a drop-out year, taking into account changes in a school leaving age.<sup>7</sup> Since less than 4 percent of individuals in our sample were born before 1930 (after 1963), we disregard reforms that result in changes for cohorts out of this range. In few countries, there was more than one reform, which would make certain cohorts treated and control at the same time. Accordingly, we abstract from this problem by considering one reform per country for which pre- and post- cohorts are well defined, e.g., we do not include 1953 reform in Slovakia but rather use 1960 reform in Slovakia. Table A.1 summarizes educational reforms used in this study. We show that results are robust, restricting to seven countries and related schooling reforms that more often have been used by previous scholars: Austria, Germany, Sweden, Spain, Italy, France, and Denmark.

<sup>&</sup>lt;sup>7</sup>This approach results in small differences in cohorts used in this study compared to Hofmarcher (2021). Results remain the same if we follow the assignment by Hofmarcher (2021), yet the F-statistics is 10. Accordingly, in the main analysis, we follow Crespo et al. (2014) in defining the first cohort affected at a drop-out year.

			Chang	ge in		
Country	Year of reform	First cohort potentially affected	years of compulsory schooling	school leaving age	Cohort 7 years before	Cohort 7 years after
Austria <sup>a</sup>	1962	1947	$8 \rightarrow 9$	$14 \rightarrow 15$	1940	1953
Bulgaria <sup>c</sup>	1959	1944	$7 \rightarrow 8$	$14 \rightarrow 15$	1937	1950
$Czech Republic^{c}$	1960	1945	$8 \rightarrow 9$	$14 \rightarrow 15$	1938	1951
Croatia <sup>c</sup>	1952	1937	$7 \rightarrow 8$	$14 \rightarrow 15$	1930	1943
$Denmark^b$	1958	1945	$5 \rightarrow 7$	14	1938	1951
$Estonia^c$	1958	1943	$7 \rightarrow 8$	$14 \rightarrow 15$	1936	1949
$France^{a}$	1959	1953	$8 \rightarrow 10$	$14 \rightarrow 16$	1946	1959
Germany (Schleswig-Holstein) <sup><math>a</math></sup>	1956	1941	$8 \rightarrow 9$	$14 \rightarrow 15$	1934	1947
Germany (Hamburg) <sup><math>a</math></sup>	1949	1934	$8 \rightarrow 9$	$14 \rightarrow 15$	1927	1940
Germany (Niedersachsen) <sup><math>a</math></sup>	1962	1947	$8 \rightarrow 9$	$14 \rightarrow 15$	1940	1953
Germany (Bremen) <sup><math>a</math></sup>	1958	1943	$8 \rightarrow 9$	$14 \rightarrow 15$	1936	1949
Germany (Nordrhein-Westphalia) <sup><math>a</math></sup>	1967	1953	$8 \rightarrow 9$	$14 \rightarrow 15$	1946	1959
Germany (Hessen) <sup><math>a</math></sup>	1967	1953	$8 \rightarrow 9$	$14 \rightarrow 15$	1946	1959
Germany (Rheinland-Pfalz) <sup><math>a</math></sup>	1967	1953	$8 \rightarrow 9$	$14 \rightarrow 15$	1946	1959
Germany (Baden-Wurtenberg) <sup><math>a</math></sup>	1967	1953	$8 \rightarrow 9$	$14 \rightarrow 15$	1946	1959
Germany (Bayern) <sup><math>a</math></sup>	1969	1955	$8 \rightarrow 9$	$14 \rightarrow 15$	1948	1961
Germany (Saarland) <sup><math>a</math></sup>	1964	1949	$8 \rightarrow 9$	$14 \rightarrow 15$	1942	1955
$Italy^b$	1963	1949	$5 \rightarrow 8$	$11 \rightarrow 14$	1942	1955
$Latvia^c$	1958	1943	$7 \rightarrow 8$	$14 \rightarrow 15$	1936	1949
$Lithuania^c$	1958	1943	$7 \rightarrow 8$	$14 \rightarrow 15$	1936	1949
$Luxembourg^c$	1963	1948	$8 \rightarrow 9$	$14 \rightarrow 15$	1941	1954
$Malta^{c}$	1974	1958	$8 \rightarrow 10$	$14 \rightarrow 16$	1951	1964
$Netherlands^b$	1950	1937	$6 \rightarrow 8$	13	1930	1943
$\operatorname{Poland}^{c}$	1961	1946	$7 \rightarrow 8$	$14 \rightarrow 15$	1939	1952
$\mathbf{Portugal}^{c}$	1964	1950	$4 \rightarrow 6$	$12 \rightarrow 14$	1943	1956
$\operatorname{Romania}^{c}$	1965	1950	$7 \rightarrow 8$	15	1943	1956
$Slovakia^c$	1960	1945	$8 \rightarrow 9$	$14 \rightarrow 15$	1938	1951
$Slovenia^c$	1952	1937	$7 \rightarrow 8$	$14 \rightarrow 15$	1930	1942
$\operatorname{Spain}^{a}$	1970	1957	$6 \rightarrow 8$	$12 \rightarrow 14$	1950	1963
$Sweden^a$	1962	1950	$8 \rightarrow 9$	$14 \rightarrow 15$	1943	1956

Table A.1: Educational reforms and affected birth cohorts in European countrie
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<sup>a</sup> From Brunello et al. (2009).
<sup>b</sup> From Crespo et al. (2014).
<sup>c</sup> From Hofmarcher (2021).

## B. Descriptive statistics

 Table B.1: Descriptive statistics depending on always staying home during the first wave of the pandemic

		Responden							
	always s	tayed home	left home						
	$\frac{\text{mean}}{(1)}$	SD	mean (2)	SD	difference (1)-(2)	p-value			
Age	75.02	6.26	72.32	5.60	2.69	0.00			
Female	0.67	0.47	0.56	0.50	0.11	0.00			
Two or fewer rooms at age 10	0.45	0.50	0.35	0.48	0.11	0.00			
Years of education	9.42	4.04	11.35	4.08	-1.93	0.00			
Compulsory schooling	7.34	1.21	7.78	1.24	-0.44	0.00			
Number of children	2.22	1.34	2.02	1.17	0.20	0.00			
Ability to ends meet since the outbreak of Corona:									
Easily	0.15	0.35	0.36	0.48	-0.21	0.00			
Employed or self-employed since the	outbreak d	of Corona:							
Employed	0.02	0.14	0.08	0.28	-0.06	0.00			
Health before the outbreak of Corona	:								
Self-perceived poor health	0.18	0.38	0.06	0.23	0.12	0.00			
Mental health deterioration since the	outbreak	of Corona:							
More depressed	0.22	0.41	0.15	0.36	0.07	0.00			
More lonely	0.12	0.33	0.10	0.30	0.02	0.00			
More nervous	0.26	0.44	0.20	0.40	0.05	0.00			
More trouble sleeping	0.11	0.32	0.08	0.27	0.04	0.00			
Corona-related country-interview date specific factors:									
Deaths due to COVID per $100.000^a$	17.96	22.56	19.42	21.14	-1.46	0.00			
COVID infections per $100.000^a$	217.65	168.29	258.01	183.28	-40.36	0.00			
Stay-at-home requirements <sup><math>a</math></sup>	42.48	25.04	37.68	24.62	4.80	0.00			
Change in Google mobility $tracker^b$	10.25	3.95	9.62	3.71	0.63	0.00			
Observations	2913		12941						

*Note*: Column 1 restricts to respondents who always stayed home during the first wave of the pandemic, and column 2 - left home at least once. The last column reports the p-value of the null hypothesis about the equality of the two means.

<sup>a</sup> From OxCGRT. Number of deaths (infections) refers the cumulative number of deaths (infections) due to Covid-19 per 100.000 since February 1, 2020 and before the day of interview across countries. Duration of stay-at-home requirements is the number of days requiring not leaving home with exceptions for 'essential' trips since February 1, 2020 and before the day of interview across countries.

 $^{b}$  From Google Mobility Report. This change refers to change in residential mobility related to a period from February 1, 2020, until the day of the interview in a country.