

# The Persistent Effect of Educational Institutions: Danish Folk High Schools & Political Participation

Jonathan Stavnskær Doucette\*

Roman Senninger†

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## Abstract

This research note analyzes the extent to which political participation can be traced to historical educational institutions that emerged between 1844 and 1900. Using fine-grained georeferenced voting records and survey data, we document that proximity to historical Danish Folk High Schools is related to higher turnout in elections and (self-reported) measures of political participation. The relationship holds after accounting for a variety of historical and contemporary characteristics. Our results provide evidence of the importance of historical educational institutions for contemporary political participation.

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\*University of Copenhagen

†Aarhus University

## Introduction

One of the most consistent empirical findings is that education is positively correlated with political engagement. Whether this reflects a causal relationship is still up for discussion, although the evidence points at either a positive or a null effect (e.g. Berinsky and Lenz 2011; Persson 2015; Kam and Palmer 2008). This research note brings new insights to this debate by straying from previous work in two ways. First, we do not examine the impact of normally studied educational institutions, such as high schools or universities. Rather, we focus on a particular Danish voluntary school, the Folk High Schools, which grew out of a religious movement in the nineteenth century that aimed specifically at teaching civic skills. Second, we focus on the legacies of this particular educational institutions rather than the effects of contemporary educational institutions.

The second contribution is especially pertinent in the Danish case. Turnout at Danish elections has been consistently high (close to 90%) since World War II (Kollmand et al. 2019; Thomsen 2021). The emergence of high levels of political participation can be traced to the second part of the nineteenth century and the initial years of the twentieth century (see Figure 7 in the Appendix). Thus, one should look at historical factors to explain this phenomenon. We propose that the Folk High School movement may help account for the increase in political engagement.

The first question that we examine is whether access to Folk High Schools is persistent over time. This serves to illuminate if any found correlation between access to historical Folk High Schools and political engagement might reflect a continuous difference in education opportunities. We document a positive association between historical and contemporary access to Folk High Schools - the correlation is 0.27.

Next, we show that proximity to historical Folk High Schools, which we use as a proxy for access, predicts higher turnout in elections today. We contend that this relationship can be partially attributed to civic skills acquired by students (and their subsequent transfer to offspring and local communities) at Danish Folk High Schools.

This relationship is robust to accounting for access to pre-existing education opportunities, such as high schools and university, and contemporary factors such as income and migration. To better identify the effect of historical Folk High Schools, we plan to code election-district turnout data (from Statistics Denmark’s historical yearbooks) for nineteenth century elections, and conduct a staggered adoption analysis of turnout changes comparing district that were located close to new Folk High Schools with districts far away from such schools. We argue that the Folk High School movement emerged at an opportune moment where Danish society experienced both political and economic change, which bolstered the movements impact on society (Giuliano and Nunn 2021).

The research note makes several contributions. First, it helps explain the historical roots of Denmark’s unusually high turnout (e.g. Elklit and Togeby 2009). Second, it highlights the possible positive role alternative education opportunities can offer in increasing political engagement (e.g. Quintelier 2015; Keating and Janmaat). Finally, we find that a historical change in education opportunities can have long term implications for a country’s political dynamics, which differ from the contemporary focus of most studies of education and political engagement (e.g. Berinsky and Lenz 2011; Kam and Palmer 2008).

This research note is organized as follows. First, we describe the historical Folk High School movement and detail how it spread across Denmark and how it differs from usually studied educational institutions. Next, we discuss how it affected political engagement and why it might have persisted over time. Then, we present data and examine whether proximity to Folk High Schools is enduring. Finally, we investigate the correlation between historical proximity and contemporary political engagement.

## The historical Folk High School movement

The Danish Folk High School movement can be traced back to the works of Danish pastor N. F. S. Grundtvig (1783-1872). He produced a series of works beginning in the 1830s that emphasized the value of popular enlightenment and preparing ordinary citizens to partake in their own education. To enable this, Folk High Schools should be established and act as a civic school for life (Dam 2013; NM 2021).

This is in contrast to the formal education opportunities at the time. Nineteenth century primary schools and high schools sought to teach their students practical skills, such as reading, writing, and math, in addition to instilling faith to king and country. Attendance was free and mandatory, and usually lasted from ages 7 to 14. Discipline was harsh and corporal punishment was often applied. Teaching was based on memorization. Nevertheless, by the 1830s the vast majority of the Danish population was literate (Jørgensen 2017).

Inspired by work of N. F. S. Grundtvig, a number of his followers started the first Folk High Schools in the 1840s and 50s. They were completely voluntary and open to all males (from the 1860s a number of schools opened that targeted women). As a majority of the Danish population was employed in agriculture at the time, the seminars were held after harvest season. Attendance was relatively cheap as the schools received grants from the state (Dam 2013; Hvidt 2012). In the 1860s their popularity increased tremendously, and they spread across the country. In 1866 there were approximately 1000 students, by 1872 this number had more than doubled to 2833 (Jørgensen 2020a; NM 2021). The schools spread over large parts of Denmark. Figure 1 shows the location of the Danish Folk High Schools that were founded between 1844 and 1900. The schools were not part of the formal education system, and as such they did not grant access to jobs or the university.

The voluntary and non-formal character of the Folk High Schools separates them from the kind of institutions usually studied in the literature, such as primary schools or universities (e.g. Berinsky and Lenz 2011; Persson 2015; Kam and Palmer 2008).

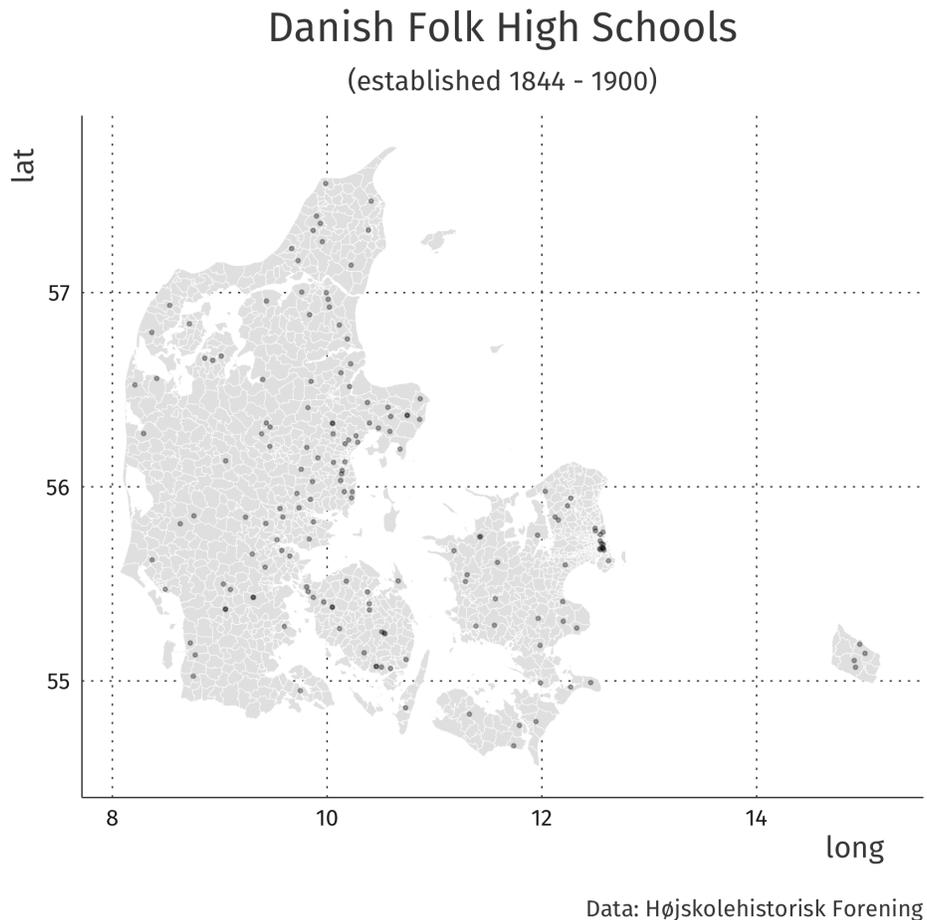


Figure 1: Geographical location of Danish Folks High Schools

Like participation in other voluntary organizations, the impact of Folk High Schools might diverge from formal schooling and it may even be stronger (see e.g. Quintelier 2015; Keating and Janmaat 2016; McFarland and Thomas 2006). As such, they may have more in common with what is termed informal learning institutions or supplementary education, such as after-school programs, that are likewise voluntary (Rogoff et al. 2016; Park et al. 2016). However, Folk High Schools still differ from many such institutions on another parameter - namely, that they are not aimed at improving student outcomes within the formal education system. Consequently, we

consider the particular impact of Folk High Schools on political engagement in the next section.

## Folk High Schools and political engagement

The Folk High Schools movement had particular goals that diverged from formal education institutions. It sought to form its students into autonomous Danes that were ready to participate in a democratic regime (Henningesen 1994). It emphasized economical and ideational freedom and popular education. In this way the Folk High Schools became schools in civic participation (Loftager 2004, 68). As put by Danish professor Hal Koch:

”(..) these enterprises (read: Folk High Schools) became a practical schooling in democracy: here one was taught to negotiate; here one was taught to understand and accept differences of opinion, here one above all else was taught to cooperate” (quoted in Loftager 2004, 69).<sup>1</sup>

The view of Folk High Schools as schools of political engagement for the masses was also shared by political elites at the time. For instance, in 1885 Matzen - parliamentary politician and member of the conservative party (Højre) - complained that the Folk High Schools (and their teachers) demoralized the population by making them engage in civil society organizations (Friisberg 1977, 70).<sup>2</sup>

Thus, the emergence and success of the Folk High Schools in the second part of the nineteenth century implied that an increasing number of the Danish population became schooled in democratic participation. As a result, we expect higher political engagement in areas that were located close to a Folk High School.

This pattern could persist in two ways. First, one might expect that the presence

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<sup>1</sup>Translated from Danish by the authors.

<sup>2</sup>In this particular case, the so called ”riffeforeninger” that attempted to curb Højre’s autocratization attempts.

of Folk High Schools may be enduring, as previous students take up the mantle as teachers or organizers of new schools. Second, one might expect that former students are more likely to transfer their higher engagement to their offspring, and more likely to start other civil society organizations that politically engage their community (Guiso et al. 2016, 1428-1429).

We are not alone in emphasizing the importance of the Folk High Schools. They are viewed as an important part of Danish culture (see e.g. Koch 1946; Loftager 2004; Jørgensen 2020a). One might wonder why the Folk High School movement plays such a prominent role in Danish culture, as there were several educational developments in Denmark before and after the movement. There is, however, good reason to suspect that the Folk High School may have left a lasting outsized cultural imprint. Guiliano and Nunn (2021) have shown that cultural change is much more likely in generations that live in drastically different environments than their ancestors, as prior customs and beliefs are less appropriate in the changing environments. This was certainly true for young Danes living in the latter part of the nineteenth century.

1840 to 1900 was a transformative period in Danish history. Many centuries of monarchical rule were replaced with competitive elections in 1848. In addition, the military defeat to Prussia in 1864 and subsequent loss of territory turned Denmark into a small power on the international scene. The Danish economy also saw fundamental changes. In 1800, Denmark had a population of 900.000, by 1910 it had grown to more than twice that size (2.7 million). At the same time, many left the countryside and moved to the city - in 1814, 20% of the population lived in cities, by 1911 it was 49%. This was driven by almost unabated economic growth between 1840 and 1914 that included rapid urban industrialization around the 1880s (Jørgensen 2020b). Young Danes in the latter part of the nineteenth century thus faced completely different political institutions and economic opportunities than their parents, which is likely to have enhanced the impact of the Folk High Schools.

## Data

Our data on Danish Folk High Schools come from the Society of the History of Folk High Schools (*højskolehistorisk forening*) which compiled a list of Danish Folk High Schools from 1844 (the year in which the first school was established) onwards (N = 345). The list includes information about a school's name, the municipality in which a school was located, a school's address, and the years in which a school was established and closed, respectively. Our theoretical argument says that access to Folk High Schools increases individual's political participation. We proxy access with proximity to schools and measure place-based information about Folk High Schools through geocoding.

Geocoding is a computational process of assigning a location in the form of geographic coordinates (often expressed as latitude and longitude) to physical addresses. This creates information about proximity to schools at the most disaggregated level, resulting in fine-resolution data points representing locations on the Earth's surface. In total, we geocoded the addresses of 342 schools.<sup>3</sup> The number of schools established in the period between 1844-1900 is 167.

We rely on two data sources to measure contemporary political participation at the aggregated and individual levels. First, we use turnout data from recent national parliamentary elections in 2007, 2011, and 2015 and European Parliament elections in 2004, 2009, and 2014 at the polling station level. The polling station level is the smallest administrative unit in Denmark and is mainly applied at elections and referendums. For the elections considered in our study, Denmark was divided into nearly 1,400 polling station areas. The average size of polling station areas is 14.59 km<sup>2</sup>.

To capture the proximity to historical Folk High Schools, we measure the Euclidian

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<sup>3</sup>We note that two school addresses have been manually revised because of changes of the street name. Three schools from the list of the Society of the History of Folk High Schools did not include the school's address.

distance between the polling station centroids and the geographical location of the nearest Folk High School. Figure 2 provides an example. It shows the Aarhus City Hall polling station area (black border), its centroid (yellow C), the nearest historical Folk High School (yellow N), and remaining historical Folk High Schools. We measure the distance (in 10km) between the polling station centroid and the nearest historical Folk High School for each of the nearly 1400 polling station areas.

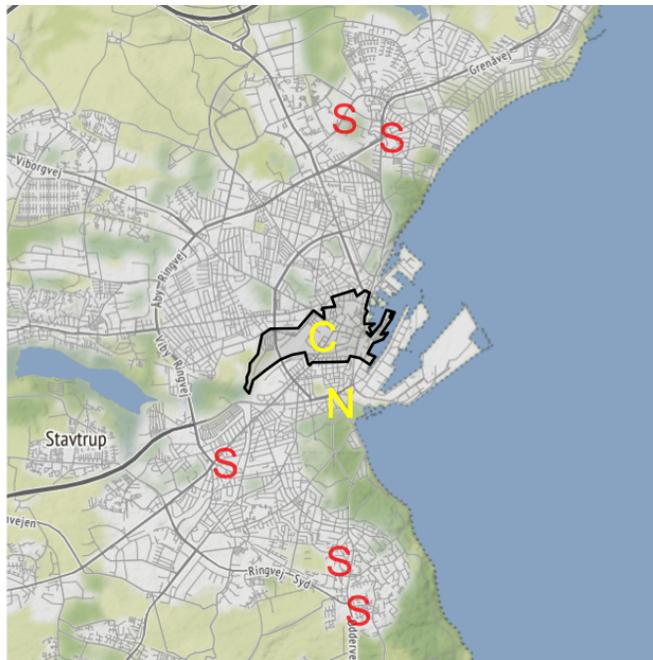


Figure 2: Aarhus City Hall polling station centroid and nearest historical Folk High School

Note: The yellow C notes the centroid of the polling station area which is marked by the black border. The yellow N shows the location of the nearest historical Folk High School. The red S symbols show the location of the remaining historical Folk High Schools.

Second, we consider measures of political participation at the individual level from the Danish Election Study in 2015. The current (very preliminary) analysis includes

a variable indicating whether an individual signed up for receiving information from a political party and a measure of political interest from 1 (very interested) to 4 (not at all interested). The individual level data include a variable showing the municipality in which the respondent lives. Similar to the description above, we use this place-based information and determine the centroid of the municipality. Next, we measure the distance (in 10km) from the centroid to the nearest historical Folk High School.

## **Persistence in access?**

As mentioned before, our main analysis focuses on schools that were established between 1844-1900. However, to analyze the persistence in access to Folk High Schools, we measure the correlation between historical and contemporary schools. More specifically, we take the polling station data and determine the minimum distance to 1) the nearest historical Folk High School and 2) the nearest contemporary Folk High School. Thereafter, we measure the Pearson correlation coefficient between the two measures which is 0.27 (see Figure 3).

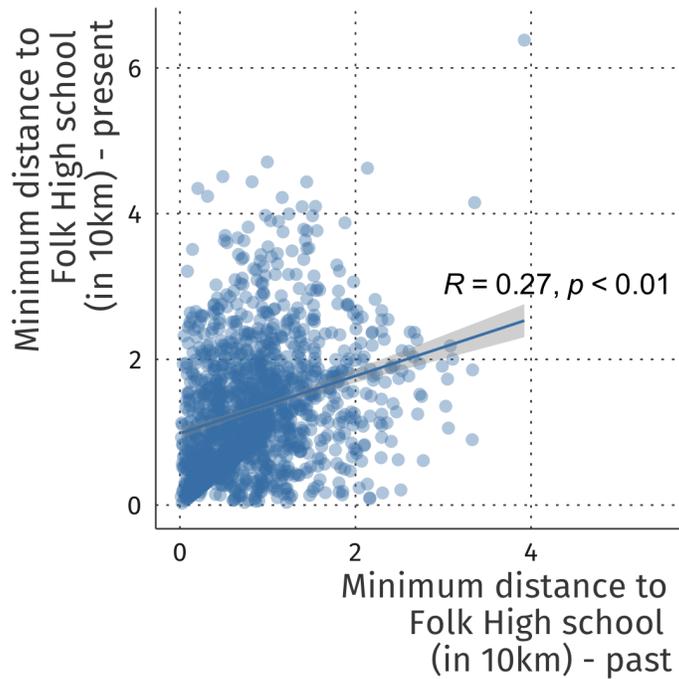


Figure 3: Correlation between past and contemporary access to Folk High Schools

## Results

In this section, we present our (very preliminary) results on the association between the minimum distance to historical Folk High Schools and contemporary measures of political participation at the aggregated and individual levels. The panels in Figure 4 and Figure 5 show that polling station areas that are further away from historical Folk High Schools exhibit lower levels of turnout both in national parliamentary elections and European Parliament elections. The left panels show the binary association between the two variables. The right panels are based on models that include historical (i.e., minimum distance to cities in 1840, minimum distance to latin/high schools (1830), minimum distance to main building of the University of Copenhagen) and contemporary control variables (i.e., migrants (%) and low-income households (%)). Please see Table 1 and Table 2 in the appendix for further results. Table 3

and Figure 8 in the appendix present additional results on the association between the proximity to historical Folk High Schools and Eurosceptic voting in European Parliament elections.

In addition to the aggregated level, we present (very preliminary) results that provide evidence for an association between the distance to historical Folk High Schools and contemporary measures of political participation at the individual level (see Figure 6). The left panel shows the probability of signing-up for direct information from political parties across values of the minimum distance to historical Folk High Schools. Individuals living further away from historical Folk High Schools are less likely to engage with information political parties. The right panel shows predicted values for a measure of interest in politics with higher values representing less interest across values of the minimum distance to historical Folk High Schools. Individuals living further away from historical Folk High Schools are less interested in politics.

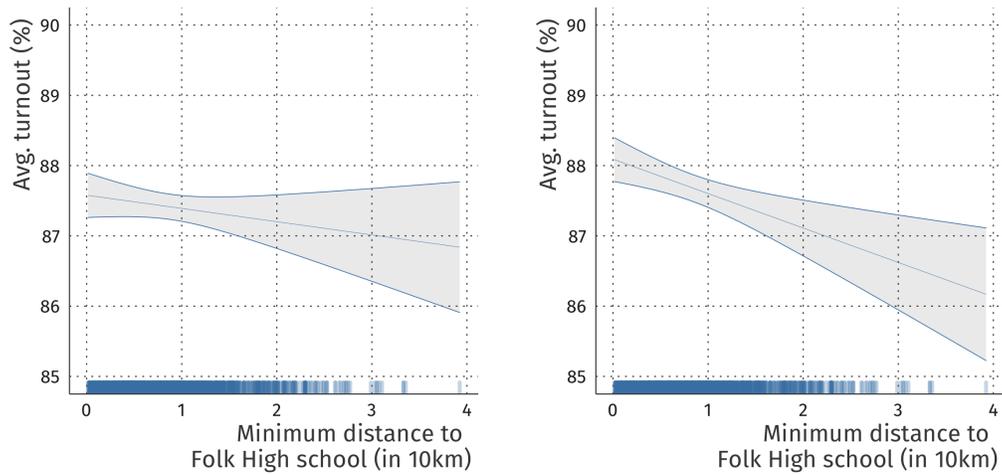


Figure 4: Average turnout (%) in National Parliamentary Elections.

Note: Predicted values. The response variable is the average turnout in the national elections in 2007, 2011, and 2015 measured at the polling station level. The independent variable is the minimum distance between the polling station centroid and the nearest Folk High School. Left panel without controls (Model 1). Right panel with historical (incl. minimum distance to cities in 1840, minimum distance to latin/high schools (1830), minimum distance to main building of the University of Copenhagen) and contemporary control (incl. low-income households (%)) (Model 2).

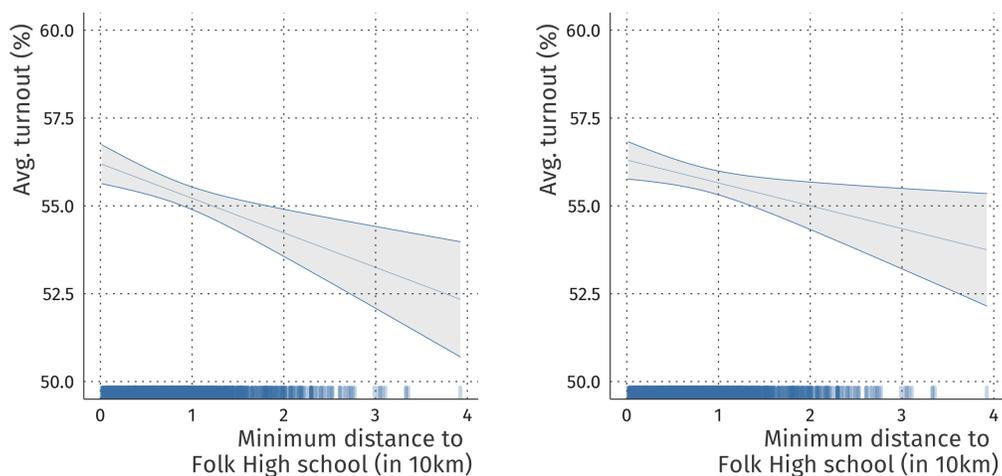


Figure 5: Average turnout (%) in European Parliament elections.

Note: Predicted values. The response variable is the average turnout in the EP elections in 2004, 2009, and 2014 measured at the polling station level. The independent variable is the minimum distance between the polling station centroid and the nearest Folk High School. Left panel without controls (Model 1). Right panel with historical (incl. minimum distance to cities in 1840, minimum distance to latin/high schools (1830), minimum distance to main building of the University of Copenhagen) and contemporary controls (incl. migrants (%) and low-income households (%)) (Model 2).

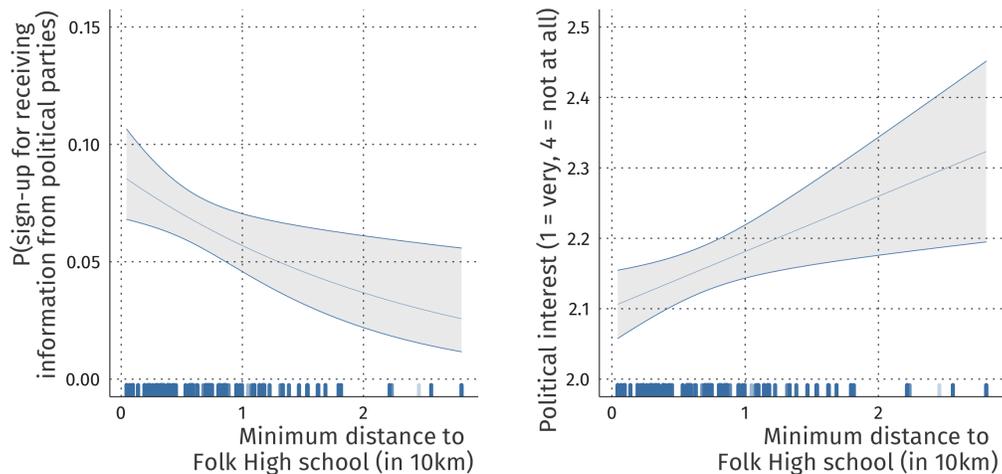


Figure 6: Individual level association between distance to historical Folk High Schools and political participation

## Discussion

In future iterations of this research note, we plan to shift our main focus to explaining the change in turnout in Danish elections during the long nineteenth century. To do so, we plan on coding new turnout data from the Statistics Denmark’s historical year-books published alongside each election. Specifically, we aim to estimate a staggered adoption design where some localities (i.e. election districts) are ”treated” with Folk High School access as new schools are founded (we have collected data on the year each school began its operation), while other districts remain ”untreated” (or at least remain so far away from a school as to make attendance unlikely). We are aware that the Constituency-Level Elections Archive has turnout data for this period (as illustrated by Figure 5). However, its data only covers fairly large geographical areas, thus making it less useful for our purposes.

Any ideas concerning this data, the design, possible confounders, or any other suggestions are most welcome.

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# Appendix

Table 1:

DV: Avg. turnout % in national parliamentary elections						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Min. Distance to Folk High Schools	-0.188 (0.153)	-0.490*** (0.153)	-0.163 (0.154)	-0.396** (0.154)	-0.238 (0.200)	-0.256 (0.186)
Controls	No	Yes	No	Yes	No	Yes
Region FE	No	No	Yes	Yes	No	No
Municipality FE	No	No	No	No	Yes	Yes
Observations	1,346	1,345	1,346	1,345	1,346	1,345
Adjusted R <sup>2</sup>	0.0004	0.153	0.021	0.180	0.210	0.324

Table 2:

DV: Avg. turnout % in European Parliament elections						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Min. Distance to Folk High School	-0.984*** (0.269)	-0.651** (0.259)	-0.577** (0.258)	-0.456* (0.245)	0.009 (0.313)	-0.025 (0.265)
Controls	No	Yes	No	Yes	No	Yes
Region FE	No	No	Yes	Yes	No	No
Municipality FE	No	No	No	No	Yes	Yes
Observations	1,382	1,382	1,382	1,382	1,382	1,382
Adjusted R <sup>2</sup>	0.009	0.237	0.122	0.348	0.376	0.563

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

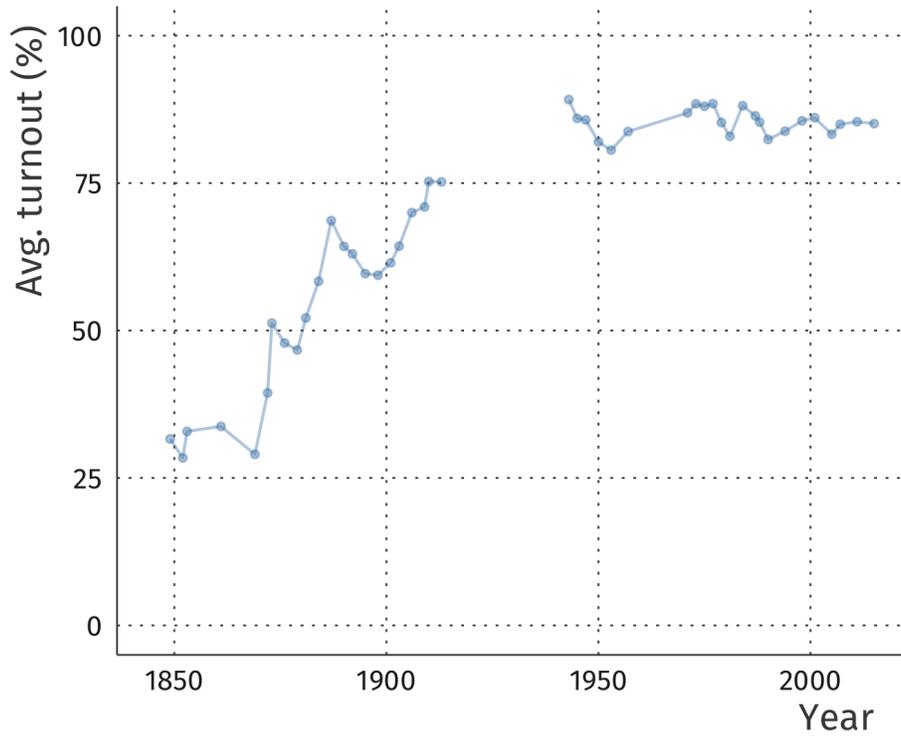


Figure 7: The development of electoral participation in Denmark over time

Note: Shows the average turnout in Danish election districts with available data from 1849 to 2015. From the Constituency-Level Elections Archive (Kollmand et al. 2019).

Table 3:

	DV: Avg. support % for Danish People's Party					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Min. Distance to Folk High School	1.462*** (0.168)	1.152*** (0.173)	1.202*** (0.163)	0.790*** (0.167)	0.621*** (0.171)	0.447*** (0.164)
Controls	No	Yes	No	Yes	No	Yes
Region FE	No	No	Yes	Yes	No	No
Municipality FE	No	No	No	No	Yes	Yes
Observations	1,382	1,382	1,382	1,382	1,382	1,382
Adjusted R <sup>2</sup>	0.051	0.161	0.140	0.255	0.540	0.586

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

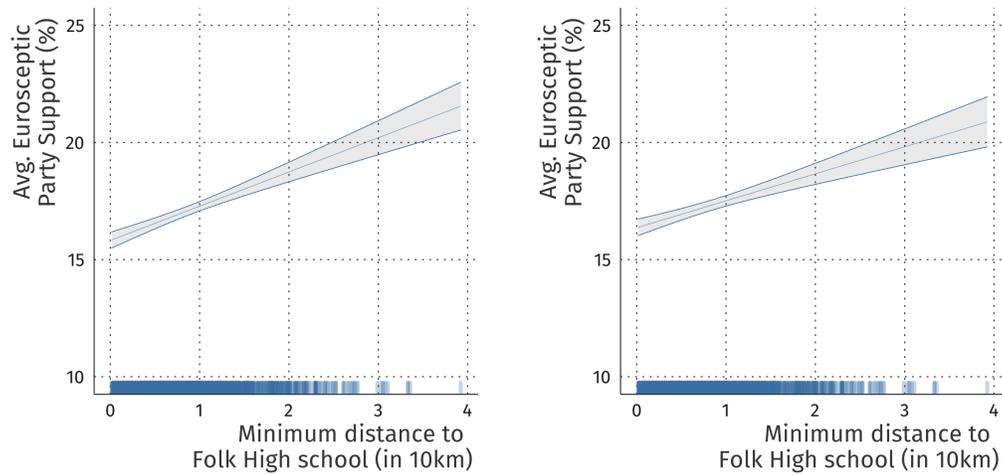


Figure 8: Average support (%) for Danish People’s Party in European Parliament elections.

Note: Predicted values. The response variable is the average support for the Danish People’s Party in the EP elections in 2004, 2009, and 2014 measured at the polling station level. The independent variable is the minimum distance between the polling station centroid and the nearest Folk High School. Left panel without controls (Model 1). Right panel with historical (incl. minimum distance to cities in 1840, minimum distance to latin/high schools (1830), minimum distance to main building of the University of Copenhagen) and contemporary controls (incl. migrants (%) and low-income households (%)) (Model 2).