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ABSTRACT

Political Selection When Uncertainty Is High*

Do voters place their trust in tried and tested leaders when uncertainty is high or do they prefer a new slate of leaders who are arguably more competent? To study this question, we make use of hand-collected data on 402,385 candidates who competed in open-list local council elections (1996-2020) in Bavaria. The 2020 elections took place at the dawn of the Covid-19 pandemic, a time of high uncertainty about the future course of events. Using local heterogeneity in Covid-19 outbreaks and related school/daycare closures to proxy the degree of perceived uncertainty across Bavarian municipalities, we show with a difference-in-differences design that councilors' incumbency advantage declined more in exposed municipalities. This decrease in the incumbency advantage is limited to male and non-university educated incumbents, resulting in shifted patterns of political selection. Overall, we conclude that voters select more competent politicians when they face uncertainty about the future.

JEL Classification: D72, D78, H70, J13, J16

Keywords: political selection, council elections, incumbency, Bavaria, COVID-19, uncertainty

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1 Introduction

In March 2020, Germany (or more specifically the state of Bavaria) experienced the first major outbreaks of Covid-19. In the following days, uncertainty about the future course of events was exceptionally high. Opinions about the severity of the pandemic were divided, with some experts and policy makers arguing that Covid-19 was no worse than the flu and others predicting a devastating rise in mortality. In turn, recommendations about appropriate policy responses differed and political decisions were often taken in an ad-hoc manner.

In this environment of high uncertainty, voters across the 2,056 municipalities in Bavaria were called to the polls on March 15th, 2020 to elect new local councils. The chronological closeness of the first Covid-19 outbreaks and the Bavarian local elections offers a unique context to study political selection in times of high uncertainty. Are voters more likely to retain their tried and tested leaders or do they select new leaders when uncertainty is high? If voters do select new leaders, who do they prefer? We are the first to analyze the role of uncertainty for political selection at the candidate level.

Our empirical design makes use of the fact that as of March 15th, only few localized outbreaks had occurred in Bavaria. There was thus no widespread fear, as evidenced by turnout rates that were as high as in previous elections. On the other hand, uncertainty was plausibly higher in those municipalities that had already experienced their first outbreaks. We use this local heterogeneity in exposure to Covid-19 to implement a difference-in-difference design.

We use hand-collected individual data on 402,385 candidates for local council elections across 2,056 Bavarian municipalities over the 1996-2020 period. This data includes information on incumbency, gender, party affiliation and educational attainment. Therefore, we are able to paint a detailed and comprehensive picture of how the selection of political leaders changes across different local elections in Bavaria.[1]

[1]Related papers also study the effect of Covid-19 in Bavaria but rely on aggregate party-level data and explore different research questions. Leininger and Schaub (2020) explore the impact of local Covid-19 outbreaks on parties' electoral performance and find that the dominant state-level party CSU performs better in regions more affected by Covid-19. The CSU's improved performance might be due to voters expecting CSU candidates to

Our results show that while incumbency advantages decline throughout Bavaria, they decline even more in municipalities where uncertainty was arguably higher due to local outbreaks (*treated municipalities*). As such, our results suggest that voters elect new candidates into office when faced with uncertainty.

Exploring mechanisms, we find that incumbents with lower educational attainment as well as male incumbents suffered the most. This indicates that voters seek more competent leaders when uncertainty is high. Educational attainment is a widely used and straightforward proxy for competence. The link between gender and competence is less straightforward. However, we find that female candidates are better educated than their male counterparts. Moreover, given relatively conservative gender attitudes in Bavaria, (successful) female candidates are plausibly selected along other (unobservable) traits that are positively related to competence. We also find that voters reward educational attainment as such, rather than expertise specifically in fields that are plausibly relevant to the management of a pandemic (e. g. medical fields). This indicates that voters preferred broadly competent candidates who could steer their municipalities through uncertain times, rather than candidates who are specifically suited to manage a pandemic.[2]

This paper primarily contributes to the literature on the calculus of voters. Researchers have for a long time been interested in understanding the determinants of voters' electoral choices. Various theories have been put forward to explain individual voter behavior with two main lines of thought prevailing. One is that voters engage in *retrospective voting* and evalu-

receive more support from the state government to relieve the crisis. Frank, Stadelmann, and Torgler (2020) use Covid-19 restrictions to study the link between turnout and incumbency. Between the first and the second ballot for mayor elections, the state government eased requirements for postal voting. Every eligible voter received by default mail-in-ballots which increased turnout considerably in the second ballot of 2020 compared to the second ballot in 2014. Using this exogenous increase in turnout, they find that higher turnout benefits incumbents.

[2]Exploring alternative mechanisms, we find that turnout increases in treated municipalities, relative to untreated municipalities. However, this increase can only explain a small fraction of the observed changes in the selection of candidates. Similarly, changes in voters' party preferences do not appear to explain the candidate-level selection effects. We find no significant differences in party vote shares between treatment and control municipalities.

ate politicians based on their past performance (Ashworth, Bueno de Mesquita, and Friedenberg, 2018). This would allow voters to either keep incumbents accountable (Ferejohn, 1986) or weed out incompetent incumbents (Rogoff, 1990). The second is that voters engage in *prospective voting*, i. e. voters look to the future and select politicians deemed most suited to solve upcoming challenges (Campbell, Converse, Miller, and Stokes, 1960).[3] While both retrospective and prospective voting are likely relevant, it is difficult to disentangle between the two empirically as it is typically unclear to what extent voters perceive the future as different from the past. One advantage of our Bavarian context is that prospective voting had suddenly and unexpectedly become more relevant than in previous elections. The obvious task voters faced was to select leaders who could steer their municipality through an uncertain future.[4]

Our paper also contributes to the literature on how voters react to shocks and crises that might give rise to high levels of uncertainty about the future. This literature is relatively dispersed and focuses on different sources of uncertainty. For example, Bredtmann (2022) shows that a stronger exposure to refugees in the wake of the 2015 refugee crisis increases the vote share for right-wing parties in Germany. Fetzer (2019) shows that local exposure to austerity-induced welfare reforms predicts support for Brexit.[5] We provide a new angle to this literature by focusing on the selection of individuals for political office when a crisis is potentially looming and uncertainty is high.

[3]A related literature studies why voters turn out in the first place, as the cost of voting might outweigh its benefits (Downs, 1957; Riker and Ordeshook, 1968). Besides theories assuming that voters are rational and vote instrumentally, research has also documented that voters are subject to emotional biases (Liberini, Redoano, and Proto, 2017) or that they vote for expressive rather than instrumental reasons (Carter and Guerette, 1992).

[4]Our paper is also related to the broader literature on crises/natural disasters and elections. see e. g. Bechtel and Hainmueller (2011), Healy and Malhotra (2009), or Bodet, Thomas, and Tessier (2016). Yet, there is to our knowledge no previous evidence on whether voters elect a different slate of leaders when a crisis is imminent.

[5]A related literature studies how uncertainty about policy options affects voter behavior. Selb (2008) shows that uncertainty due to longer ballots in direct-democratic votes makes it more difficult for voters to translate their preferences into policy choices. Similarly, Hessami (2016) and Hessami and Resnjanskij (2019) find that uncertainty due to the complexity of direct-democratic propositions may lead to vote abstention or a higher likelihood of rejection of propositions.

Finally, we contribute to the literature on political selection (Besley, 2005). Much of this literature studies how electoral rules or biases such as gender discrimination affect the selection of politicians (Baskaran and Hessami, 2018; Besley, Folke, Persson, and Rickne, 2017; Besley and Reynal-Querol, 2011; Hessami, 2018; Hessami and Lopes da Fonseca, 2020; Le Barbanchon and Sauvagnat, 2021). However, how uncertainty affects the selection of politicians has not yet been explored.[6]

Overall, our results suggest that when faced with uncertainty, voters are (more) likely to vote instrumentally and specifically choose more competent candidates. This finding has important implications for our assessment of the ability of different political systems to manage crises. Based on the experiences with the Covid-19 pandemic, it has been argued that democracies are less equipped to mount an effective response to such a widespread crisis as the Covid-19 pandemic (Wall Street Journal, 2020). Yet, while authoritarian regimes can swiftly implement harsh policies that are infeasible in democracies, our results suggest that democracies have unique advantages as well. In particular, they seem to have the ability, at least at the local level, to quickly put at the helm a different, and more competent slate of politicians who are better suited to make decisions under uncertainty.[7]

[6]Our paper also peripherally contributes to the literature on the political consequences of pandemics. Campante, Depetris-Chauvin, and Durante (2020) show that an Ebola scare shortly before the 2014 US mid-term elections harmed the electoral fortunes of the Democrats, arguably because Republicans strategically connected Ebola to immigration in their campaign. Giommoni and Loumeau (2020) find that stricter Covid-19 restrictions (stronger lockdowns) caused an increase in the vote share of incumbents in French local council elections. Herrera, Konradt, Ordoñez, and Trebesch (2020) show that incumbents have witnessed an increase in their approval in the early months of the Covid-19 pandemic, but that approval has declined over time. Baccini, Brodeur, and Weymouth (2021) find that Donald Trump lost the 2020 presidential race due to the Covid-19 pandemic. Some of this literature estimates how pandemic outbreaks and their political management affect incumbents' electoral fortunes (see also Gutierrez, Meriläinen, and Rubli (2021)). Note, however, that these papers focus on what happens to elections when a pandemic has already materialized, while in our setting very little of it did.

[7]Indeed, Li, Lai, Wan, and Chen (2021) show that public officials with a public health or medical background perform better in managing the Covid-19 pandemic.

2 Background

2.1 Covid-19 outbreak in Bavaria

The first case of a Covid-19 infection in Germany was confirmed on January 27th, 2020 close to Munich, Bavaria (SPIEGEL, 2020). Thanks to an immediate identification of contact persons of this patient, the initial spread of the virus was contained. However, in early March the virus reappeared causing a first significant outbreak. Until the election on March 15th, 2020, there were 1,263 registered cases in Bavaria, which was thereby the second most-affected state in Germany after North Rhine-Westphalia (Wagner, 2020).

Prior to the election day, preventative measures had been decided at the county level. These measures included prohibiting large gatherings and quarantining infected persons and their recent contacts. In some municipalities, where the virus spread quickly or where infections were confirmed among students or children/staff in child care facilities, the local government temporarily shut down these institutions entirely or partly. We have hand-collected data on these closures from local newspapers published prior to the elections. Figure 1 illustrates how many facilities were closed at what point in time and for how long.

[Figure 1 goes here]

Subfigure (a) shows the number of schools/day care facilities closed as of each day between March 4th and March 16th, 2020. Most school/day care closures occurred just up to 6 days before the council elections. It is important to note that on March 16, 2020 the Bavarian state government enacted a state-wide state of emergency and all schools/day care facilities were closed starting from this date.[8] Subfigure (b) shows the distribution of the duration of school/day care closures ranging from 1 day to 17 days. Figure C.6 in the online appendix distinguishes between the types of institutions that were closed. In total, 191 facilities were closed. Most of them were elementary schools (60), secondary schools (76) and daycare facilities (27).

[8]Note that this shutdown of schools and daycare effective as of March 16th was announced on March 13th, i.e. before the election day. However, this means that in the control group municipalities voters had not yet experienced the consequences of this shutdown but were aware that changes are going to happen.

2.2 Bavarian local council elections

In Bavarian local elections citizens vote for two important political bodies that represent the local government, councils and mayors. While mayor elections can deviate from the scheduled date due to an unexpected need to change the mayor, council elections take place at regular intervals in March every six years. The council elections that we focus on were held on March 15th, 2020. On this day, in all 2,056 municipalities local councils and mayors were elected.

Local councilors are elected via an open-list electoral rule (also called preferential voting). Parties put together a list of candidates, assigning an initial rank to each candidate prior to the election. Voters have the same number of votes as there are council seats. They can freely allocate their votes among candidates on various lists (*Panaschieren*) and give up to three votes to a single candidate (*Kumulieren*). The information voters typically see on the ballot – in addition to a candidate's name and list – includes their age, occupation and current public offices held (e.g. local councilor, county councilor, member of state parliament, etc.).

Lists receive seats based on the total number of votes collected by all candidates on the list. For instance, a list receiving overall 25% of vote in a 40-seat council election is eligible for about 10 seats. Candidates are ranked according to their preferential votes and all candidates with a post-election (final) rank that is lower than or equal to the number of seats to which a party is entitled is elected to the council (Baskaran and Hessami, 2019).[9]

While parties can influence the electoral prospects of candidates by placing them higher or lower on their list, it is voters who, by awarding preferential votes, ultimately decide which candidates may enter the council. Indeed, voters make frequent use of their ability to promote or demote candidates from the party-awarded initial rank (Tiefenbach, 2006).

[9]Hence, the pre-election rank of a candidate has no direct effect on the election outcome. However, candidates at the top of a list are more visible and the initial list rank may signal the quality of a candidate.

3 Data and empirical strategy

3.1 Data

3.1.1 Candidate-level data

We rely on the council election data from Baskaran and Hessami (2019) and expand it further with additionally collected data for 1996 and 2020. The consolidated data-set covers 402,385 candidates who participated in Bavarian local council elections in 1996, 2002, 2008, 2014 and 2020. Figure C.7 illustrates our data coverage over time.

As this candidate-level data-set is hand-collected, the coverage is incomplete and improves with time. Specifically, the candidate-level data for 2020 is almost complete with 2,046 of all 2,056 Bavarian municipalities for 2020 (99.5%), 1,581 for 2014 (76.9%), 1,009 for 2008 (49.1%), 582 (28.3%) for 2002 and 416 for 1996 (20.2%). We have data on almost all Bavarian municipalities (2,052) for at least one of the five elections. We discuss how we collected and cleaned this data in Section b.1 of the online appendix.

The data includes the name and gender of a candidate, his or her party, initial list rank, final rank (after the election based on the number of preferential votes), number of preferential votes a candidate received and whether he or she was elected into the council. For a subset of candidates, we also have information on occupational background, education and birth year. We calculate age as election year minus birth year. In order to fill in missing information on job, birth year and education, we match candidates within municipalities across years since many candidates run multiple times. Details on the matching procedure are provided in Section b.2 in the online appendix.

We identify and code incumbents based on two sources of information. First, candidates who were elected into the council in period t-1 are coded as incumbents in period t. Second, candidates are often singled out as councilors in the description of their occupation on the ballot (*Gemeinderat/-rätin, Stadtrat/-rätin*). However, not all candidates can be sorted into one of these groups as we sometimes do not have information on the electoral outcome in t-1 or because information on candidates' occupation is missing. We coded the incumbency status

of the candidates as missing when there is no data available for t-1 and/or their occupation information is missing.[10] Figure 2 shows how many candidates can be clearly distinguished as incumbents or non-incumbents (Subfigure a).

[Figure 2 goes here]

Our ability to identify (non-)incumbents improves over time as we have a better data coverage for more recent elections. We identify the smallest number of (non-)incumbents in 1996 as we do not have data on the election in 1990. Here, we only rely on the candidates' occupation information. For 2002-2020 on average 70% of candidates per election can be identified as incumbents or non-incumbents. Subfigure (b) provides an overview on how many of those incumbents are reelected into the council and how this compares to the total number of available council seats in each election.[11]

3.1.2 School closures data

Our empirical strategy relies on differences in the salience and perception of the pandemic across localities in Bavaria at the time of the local election in 2020. While various local outbreaks were known by March 2020 across Bavaria, most Bavarian regions still had zero cases. Accordingly, the sense of crisis was likely higher among voters that witnessed outbreaks in their immediate neighborhood than among voters in regions that remained unaffected. More specifically, given that the first few outbreaks of the SARS-CoV-2-Virus in Germany were contained, voters in unaffected regions may have held the belief that their towns would remain relatively safe going forward. On the other hand, the novelty of the adopted measures (closures of entire schools were practically unheard of before 2020) and the resulting coverage in local

[10]Note that in cases where the information about the electoral outcome of a candidate in t-1 is not available but it is known that he had been elected at least once in preceding elections, we code this candidate as incumbent.

[11]The figures should be carefully interpreted as we could not fully identify incumbents. However, in relative terms, the number of elected incumbents as a share of the total number of incumbents is substantially lower in 2020 than in any other election: while around 87% of identified incumbents were reelected into municipal councils in 2014, this figure drops to 79% in 2020.

media as well as word of mouth likely ensured that voters who lived in neighborhoods with local outbreaks were well aware of the impending danger.

As official data on Covid-19 infection cases is only available at the county level, we rely on school/daycare closures to identify local outbreaks at the level of municipalities. Specifically, as of March 2020, schools were entirely or partly closed and students as well as staff were quarantined if a single infection was detected or even suspected as described in Section 2.1.

Figure C.8 illustrates the number of municipalities which experienced at least one school closure (entirely or partly) before the day of election (Subfigure (a)). In total, 105 municipalities had at least one school/daycare closure. We classify these municipalities as the treatment group in our difference-in-differences set-up.

To validate our approach of using school closures as a proxy for the local spread of the virus, we analyze the temporal correlation between closures and infections. Subfigure (b) shows that most schools were closed either on the day of first confirmed case in a municipality or 1-2 days later.[12]

In Figure 3, we plot all municipalities affected by school closures. As can be seen, the affected municipalities are spread randomly across Bavaria.

[Figure 3 goes here]

Table C.7 compares the population and fiscal characteristics of the treated municipalities with municipalities in the control group. School closures took place in more densely populated municipalities that have a higher share of young citizens. It should also be noted that the treated municipalities significantly differ from the control group in their fiscal and electoral characteristics. However, as we will show later these differences do not distort our parallel trends assumption for the DiD setup.

[12]We found the information about the first confirmed case in a given municipality from local news coverage on the internet. However, this information is available for only 76 municipalities.

3.1.3 Further variables

We obtain municipality-level data from the Bavarian State Statistical Office including demographic variables (total population, gender and age cohorts), fiscal characteristics (revenues and transfers) and political variables (gender and party shares in councils). The latter are available only for the 2002-2020 period.

3.2 Empirical strategy

3.2.1 OLS model: Incumbency advantages (over time)

In a first step, we identify how large incumbency advantages for local councilors in Bavaria are in general. For this purpose, we specify the following regression equation:

$$\text{Elected}_{itm} = \beta * Incumbent_{itm} + \theta_t + \gamma_m + W'_{tm} + \varepsilon_{itm}. \quad (1)$$

where the dependent variable is a dummy variable that indicates whether a candidate i enters the council in municipality m in election t.[13] $Incumbent_{itm}$ equals 1 for incumbent candidates. Our coefficient of interest β measures how being an incumbent influences the probability of getting (re-)elected. γ_m and θ_t are municipality and time fixed effects. W'_{tm} is a vector of municipal covariates (total population, average age of citizens, share of women, share of old (above 65) or young (under 14) in the population, council size.).

[13] According to Baskaran and Hessami (2018), the fact that there is a positive relationship between initial ranks and final ranks of candidates in open-list elections makes number of votes or vote shares received by candidates a poor proxy for voter preferences. Hence, in our regressions we use the final election status of candidates to capture voter preferences more accurately.

In a second step, we analyze how the incumbency bonus varies over time using the following interaction model:

$$\begin{aligned}\text{Elected}_{itm} = \beta_1 * Incumbent_{itm} \times 2002_{itm} + \beta_2 * Incumbent_{itm} \times 2008_{itm} \\ + \beta_3 * Incumbent_{itm} \times 2014_{itm} + \beta_4 * Incumbent_{itm} \times 2020 + \gamma_m + W'_{tm} + \varepsilon_{itm}, \quad (2)\end{aligned}$$

where we interact the incumbent dummy with a dummy for each election, which respectively takes the value 1 if a candidate takes part in the election in a given year.[14]

3.2.2 Diff-in-diff model: Incumbency advantages in a crisis

Our main strategy to test if voters change their preferences towards incumbents in a crisis relies on school/daycare closures as a measure for the local salience of the pandemic at the time of the election. In these estimations, we only include the data subsample on incumbents. We use the following difference-in-differences model that takes account of multiple time periods:

$$\text{Reelected}_{imt} = \beta_1 Covid19_m + \beta_2 T_t + \beta_{3t} Covid19_m \cdot T_t + Z1_{mt}\xi_1 + Z2_{m,t-1}\xi_2 + \gamma_m + \varepsilon_{imt}, \quad (3)$$

where $Reelected_{itm}$ measures whether an incumbent candidate i is reelected in municipality m and year t. $Covid19_m$=1 for municipalities which experienced at least one school closure because of Covid-19. T_t is a year indicator and γ_m are municipality fixed effects.

To account for the differences between treatment and control groups (see Table C.7), we add two types of controls: $Z1_{mt}$ are the covariates that vary at the group and time levels: log population, female population share, average age and share of the eldest (65+) and youngest (under 14) population, population density, log total revenue per capita, log total transfers per capita and council size; $Z2_{m,t-1}$ are the council-specific covariates that also vary at the group and time levels such as share of women, CSU, SPD and Gruene in the council. As these

[14] We exclude 1996 from our sample as we could identify almost no incumbent because of data availability issues as described in Section 3.1.

variables are endogenously determined in t, we include the values from t-1 in the regression. We cluster standard errors at the municipality level.

The coefficient of interest is β_{3t}, which captures the difference between the reelection probabilities of incumbents in the treatment and control groups every year, using 2002 (or 2008 when 2002 is missing) as the base year. We expect that the coefficient for the year 2020 is significantly different from zero, while the estimates for the other years remain insignificant.

4 Results

4.1 Incumbency advantages (over time), 2002-2020

First, we take a look at the raw data to get a first impression of incumbency advantages in general and over time in Figure 4. Subfigure (a) illustrates a large incumbency bonus for councilors in Bavarian local elections. In particular, while a non-incumbent faces a probability of a little less than 20% of entering the council, an incumbent candidate has a probability of more than 80% of getting reelected.

[Figure 4 goes here]

Subfigure (b) illustrates how the incumbency advantage for Bavarian local councilors varies over time. While for 2002, 2008 and 2014 the probabilities correspond with those for the total sample in Subfigure (a), the election in 2020 stands out, especially because incumbents had a lower probability of getting re-elected than in previous elections by about 5-10%. Thus, incumbents generally faced more difficulties in getting re-elected in 2020 than before. This may be interpreted as a first piece of suggestive evidence that the SARS-CoV-2 pandemic had a noticeable effect on Bavarian local elections.

In Table 1, we estimate incumbency advantages using a regression approach based on Equation (1) outlined above. Model (1) is a simple bivariate regression, Model (2) adds municipality fixed effects, Model (3) adds time fixed effects, Model (4) is the most complete model and additionally includes various municipal control variables. The estimates for the coefficient

of interest hardly differs among these four models. In Model (4), we find that incumbent councilors are 69% more likely to get elected into the council than non-incumbent candidates. This confirms the first impression of the data in Figure 4.

[Table 1 goes here]

Table 2 collects the results for regressions based on Equation (2). The structure of the table corresponds with the previous regression table, while the difference is that the incumbent dummy is interacted with a dummy for each election year (2002, 2008, 2014, 2020). For the first three elections, the incumbency advantage amounts to 70-72% in Model (4). For the election in 2020, however, the incumbency advantage is slightly lower at 66%. This also confirms the descriptive findings above and shows that incumbency advantages were up to 10% lower in 2020 than in 2002-2014.

[Table 2 goes here]

4.2 Covid-19 threat and incumbency advantages in 2020

In Table 3, we collect the results for our difference-in-differences estimations based on Equation (3). Model (1) is the simplest model, Model (2) adds municipal controls, Model (3) as the most complete model also includes municipality fixed effects. In these estimations, we only use data on incumbents.[15]

[Table 3 goes here]

Our results show that the incumbency advantage is significantly smaller in municipalities where voters experienced more uncertainty due to an early Covid-19 outbreak in 2020. In particular, the incumbency advantage was on average 4.6ppts lower in treated municipalities

[15]Starting from Column (2) we add municipality level controls which are only available since 2002. As we use their values from period t-1, all observations in 2002 drop out from the regressions and hence, year 2008 is reported as a base year.

than in control municipalities in 2020. Overall, the incumbency advantage is 5.6ppts lower for incumbents in 2020 than in 2008 and 2014. Thus, in treated municipalities the incumbency advantage loss is almost double as large than in control municipalities compared to previous elections.

Figure 5 illustrates the treatment effect graphically. Between 2002 and 2014 control and treatment municipalities followed similar trends in incumbency advantages that did not differ in terms of statistical significance. This confirms the validity of the common trend assumption for our diff-in-diff design. In 2020, however, the estimates for incumbents' reelection probabilities differ significantly. In particular, while there is a drop in 2020 in incumbency advantages for both types of municipalities, the effect is larger for treated municipalities.

[Figure 5 goes here]

5 Robustness

In this section, we conduct three robustness tests using a placebo test, a balanced panel of municipality-election data, and an alternative measurement of our treatment variable.

5.1 Placebo test

First, we conduct a placebo test where the treatment (early Covid-outbreak) is randomly reassigned among all Bavarian municipalities (Fisher, 1937). We compute a two-sided randomization inference test statistic. This test statistic investigates whether the placebo coefficients are larger than the actual ones based on 100 random draws following Heß (2017).[16]

Figure C.1 illustrates the density plot for the coefficient estimates based on these random draws. The actual treatment effect is in the tails of the distribution and there are hardly any random combinations of treatment assignments which yield a larger treatment effect on the reelection probability of incumbents in 2020 than the municipalities with actual school closures.

[16]We also conducted a left-sided test and a test with 1000 random draws. In both cases, the results are similar.

5.2 Balanced municipality-level panel

Second, we conduct a robustness test that uses a slightly different data sample. As our dataset does not cover all municipalities in all years (see Figure 2), we re-estimate our specification with a balanced municipality-election panel for the period between 2008 and 2020. This shrinks our dataset to 957 municipalities for which data is available for all three elections.

Table C.1 has the same structure as Table 3 with the baseline diff-in-diff results. While the number of total observations has decreased from 32,921 to 26,370 in Model (4), the main estimate of 4.6ppt is the same as in the baseline results. This confirms the robustness of our baseline results to variations in the sample.

5.3 Treatment intensity

In a third robustness test, we use a measure of treatment intensity, i.e. for the treated municipalities we use a continuous measure for the number of days for which schools/daycare facilities in a municipality were closed rather than just indicating with a 0/1 dummy that there were any closures. This variation in the duration of school/daycare closures is illustrated in Figure C.8. We expect that a higher treatment intensity leads to larger incumbency advantage losses.

We adjust Equation (3) by replacing the treatment dummy with a continuous variable of treatment intensity, i.e. the average duration (in days) of school/daycare closures in a municipality. This variable has the value 0 for municipalities with no closures. Table C.2 reports that longer closures are indeed associated with larger incumbency advantage losses. In particular, according to Model (3) each additional day of school/daycare closures on average reduces incumbents' reelection probabilities by 0.7ppt.

6 Mechanism

In this section, we shed light on the main mechanism that explains our baseline findings. For this, we make use the fact that voters likely associate certain personal characteristics of candidates with better abilities to deal with a crisis. By exploring how re-election probabilities vary

with personal characteristics, we can zero in on what type of candidates voters preferred in the 2020 election and thereby on the reasons for why incumbency advantages had declined.

We re-estimate our baseline specification for subsamples of incumbents according to party ideology, gender, age and qualification of candidates. The interaction term Treatment=1 $\times$ Year=2020 identifies how voters change their preferences regarding their leaders' characteristics when there is an impending crisis. The results are provided in Table 4.

[Table 4 goes here]

The results show that while left/right partisan affiliations and the age of incumbents play no role, male candidates are 5.9ppts less likely to be re-elected while female candidates' re-election probability is not affected by Covid-19 outbreaks.[17] Moreover, candidates that do not have a university degree have a 6.3ppt lower likelihood of getting re-elected, while there is no effect on incumbents that have a university degree.

Overall, we conclude that the incumbency advantage losses due to Covid-19 outbreaks identified in the baseline results are due to shifts in patterns of political selection. Voters are more likely to vote for educated candidates. As education is an obvious proxy for competence, this result indicates that voters in the treated municipalities preferred relatively more competent leaders. Second, voters in treated municipalities preferred women over men. This last result, too, is consistent with the notion that voters select more competent candidates. Given the conservative gender norms in Bavaria and the potentially ensuing discrimination against women, it is likely that women candidates have to be of higher quality. Indeed, we find that female candidates are on average better educated than men, i. e., 30.92% of women had at least a university degree compared to 28.78% of men in the 2020 election (see Appendix Figure C.9). In line with these findings for education, it is likely that women are also positively selected along other (unobservable) traits.

[17] Table C.8 in the online appendix distinguishes in greater detail with regard to the left-right partisan scale by re-running the estimations separately for the five main parties. Also in this case, there is no evidence for specific changes to voter preferences with regard to incumbents' party affiliation. We also do not find that affiliation with a local party influences re-election probabilities disproportionately.

Next, we study whether voters prefer competence in general given the uncertain future or rather expertise that is specifically suited to medical emergencies. For this analysis, we determine whether candidates have a professional background that is potentially relevant to pandemic management. Using this division, we report in Table 5 specifications where we interact the treatment variable with a dummy for whether or not an incumbent has a relevant profession. We find that the interaction effect is consistently insignificant. This suggests that having a professional background potentially related to pandemic management does not affect the re-election probability.

Overall, these results indicate that incumbency advantages decline because voters were voting prospectively and were seeking more competent candidates in a broader sense. In contrast, expertise in fields that might be suitable to the management of a pandemic was not valued. This, in turn, suggest that voters were worried about the uncertain future rather than specifically about a long-lasting pandemic when they went to the polls in March 2020. We explore alternative mechanisms in Appendix A.1.

7 Conclusion

This paper analyzes whether voters change their voting behavior when uncertainty is high, exploiting Bavarian local elections that took place right at the beginning of Covid-19 pandemic. Our results show that incumbent councilors typically enjoy a large incumbency advantage in Bavaria. Using difference-in-differences estimations, we find that while the incumbency advantage declined throughout Bavaria in the 2020 election, it declined more in those municipalities where uncertainty about the future was arguably higher due to local Covid-19 outbreaks. In fact, the decline in the incumbency advantage was almost 50% larger in treated than in non-treated municipalities.

With respect to mechanisms, our evidence suggests that incumbency declined more in exposed municipalities because voters value competence in times of uncertainty. These results have important implications for our understandings of political selection under uncertainty.

They indicate that when given the opportunity, selecting suitable public officials is an important concern in voters' electoral calculus. In turn, our results suggest that although constrained in the type of policies that are feasible, democracies can quickly adapt to looming crises by allowing for a selection of more suitable political leaders.

These results have important implications for our understandings of political selection under uncertainty. They indicate that when given the opportunity, selecting suitable public officials is an important concern in voters' electoral calculus. In turn, our results suggest that although constrained in the type of policies that are feasible, democracies can quickly adapt to looming crises by allowing for a selection of more suitable political leaders.

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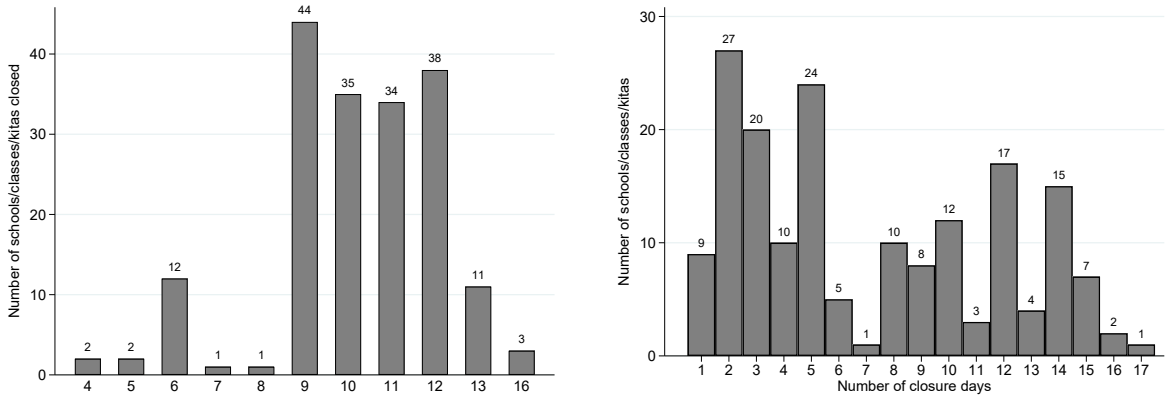
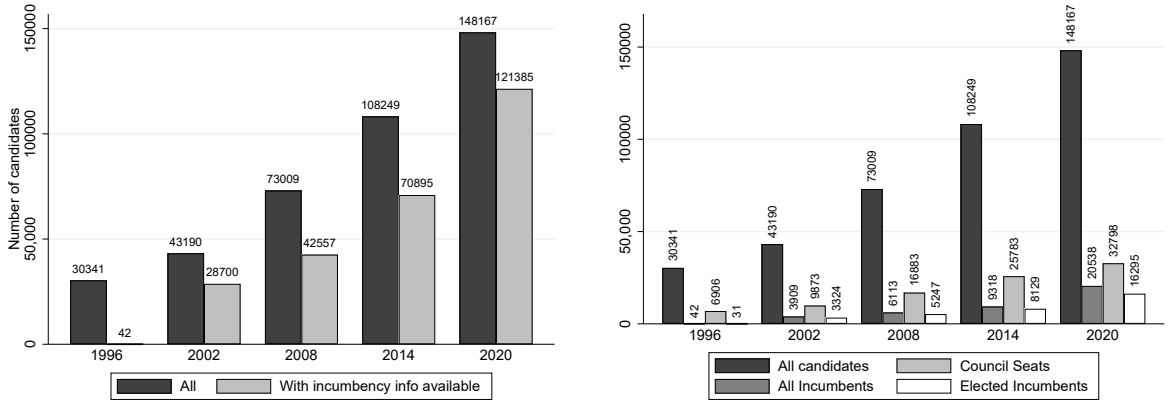


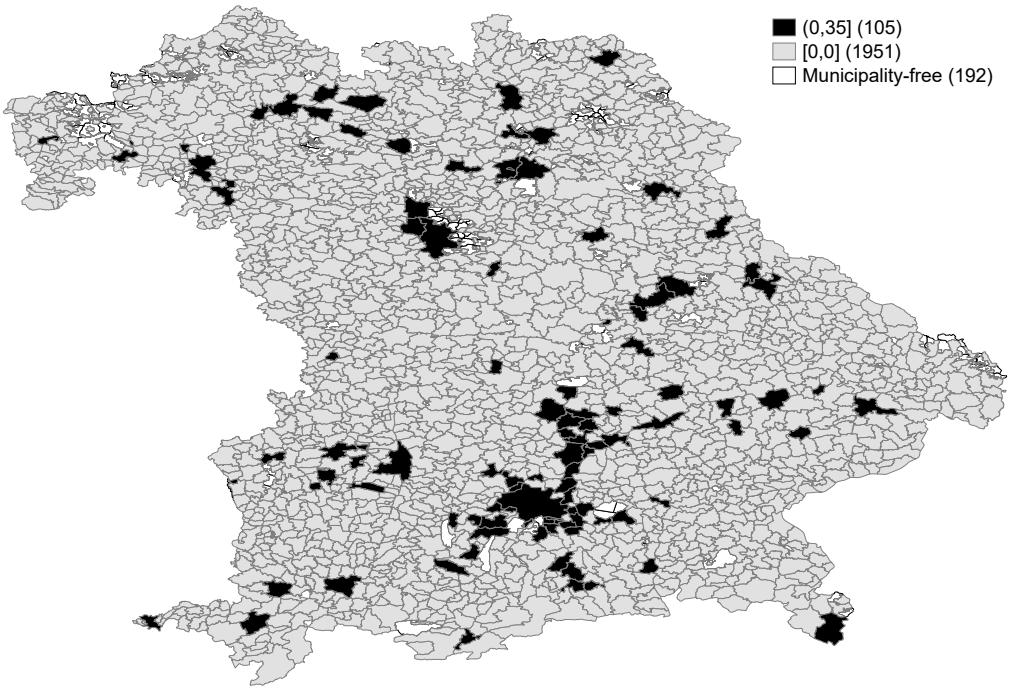
(a) School/daycare closures across March 2020 **(b)** Distribution of closure duration

Figure 1: School/daycare closures The above two figures provide information on the start dates and durations of school/day care closures. Subfigure (a) shows how many schools/daycare facilities announced to shut down on each day of March 2020 prior to election. Days represent the start date of the announced closure. Subfigure (b) illustrates the number of schools/daycare facilities that were closed for a specific number of days. Nine were closed for only one day, one for 17 days.

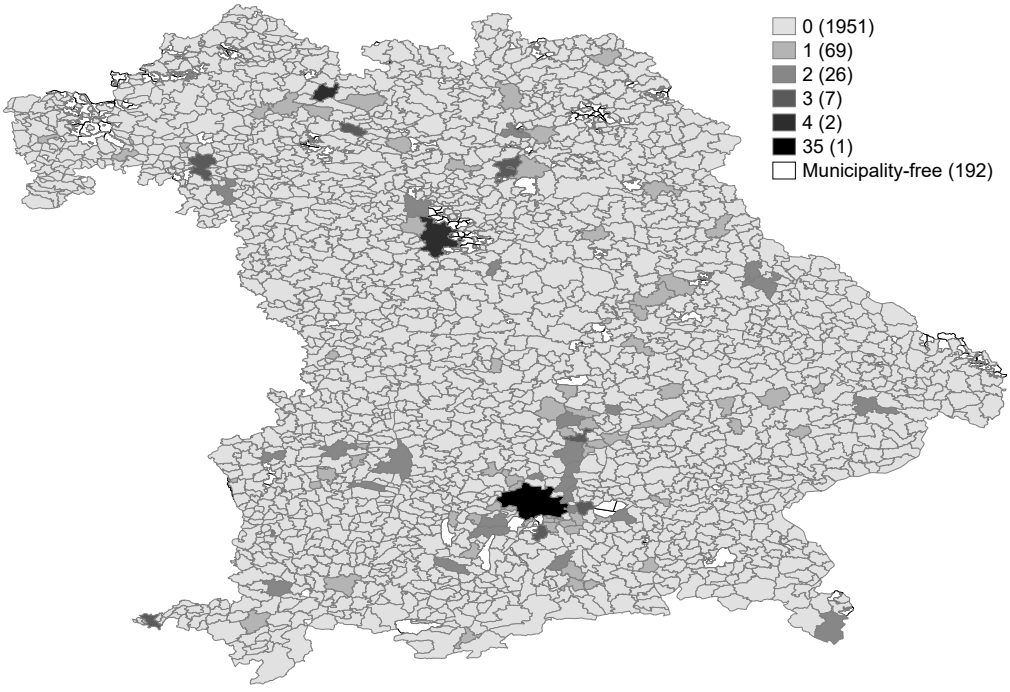


(a) Clearly definable (non-)incumbents **(b)** Candidates

Figure 2: Summary statistics on candidates. The bar charts summarize election outcomes as well as incumbency status of the candidates covered in the data. Subfigure (a) illustrates how many candidates we could clearly identify as incumbents and non-incumbents. To classify incumbents, we relied on the election outcome from the previous election and candidates' job information. As shown in Figure 1, the data is not available for all the municipalities in all years. Hence, not all the candidates can be classified as incumbent/nonincumbent. Subfigure (b) shows the number of candidates included in our sample per legislative period, how many council seats in total they competed for and the number of incumbent candidates.

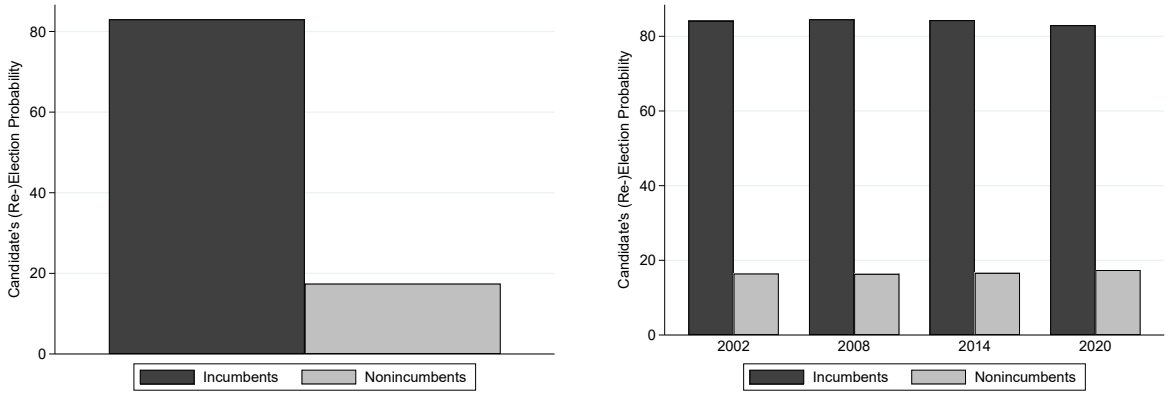


(a)



(b)

Figure 3: Geographical distribution of school/daycare closures across Bavaria. Subfigure (a) plots how the municipalities with at least one school/daycare closure are distributed across the 2056 Bavarian municipalities. 1951 had no closures (control group), while the 105 municipalities in the darker shade had at least one school/daycare facility that was closed (treatment group). Subfigure (b) uses different shades to indicate the number of closures per municipality. Darker shades indicate that more institutions were closed. In both subfigures, municipality-free areas are indicated with a white shade. They are uninhabited areas that do not belong to any municipality (mostly forest areas, water areas, military training areas).



(a) **(b)**

Figure 4: Incumbency advantages (over time). Subfigure (a) compares the election outcomes for incumbent and nonincumbent candidates in terms of probability of getting elected. This probability is calculated as a mean percentage of elected (non-)incumbents. Subfigure (b) compares the (re-)election probability of incumbent and nonincumbent candidates across different election years.

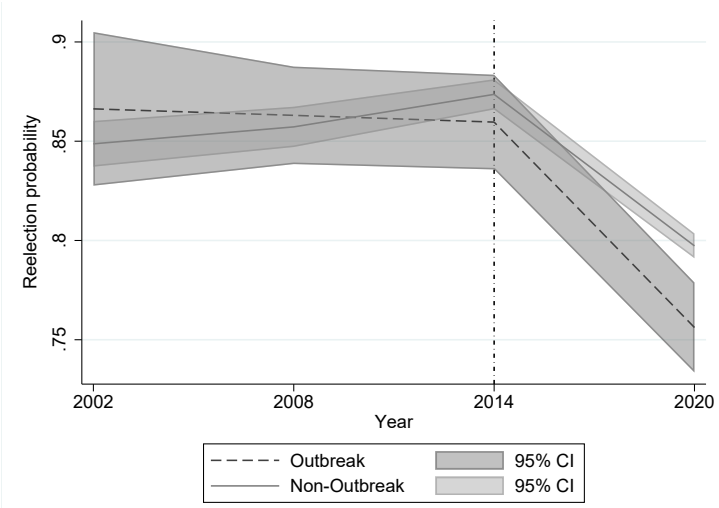


Figure 5: Diff-in-diff plot – Candidate's (Re-)Election Probability. This figure plots the difference-in-differences estimates from Table 3 with 95% confidence intervals. The estimates for reelection probabilities of incumbents in treatment and control municipalities do not significantly differ in the pre-treatment period (parallel trend assumption). However, the treatment in 2020 creates a significant wedge between the treatment and control group in terms of incumbents re-election probability.

Table 1: Incumbency advantages

Dep. var.: Elected	(1)	(2)	(3)	(4)
Incumbent	0.705***	0.688***	0.689***	0.689***
	(0.003)	(0.003)	(0.003)	(0.003)
Municipality FE	No	Yes	Yes	Yes
Time FE	No	No	Yes	Yes
Municipal Controls	No	No	No	Yes
Observations	263437	263434	263434	263434
Municipalities	1881	1878	1878	1878
R-squared	0.36	0.38	0.39	0.39

Notes: This table reports regression results for Equation (1). Municipal Controls consists of a vector of population covariates and council size. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

Table 2: Incumbency advantages over time, 2002-2020

Dep. var.: Elected	(1)	(2)	(3)	(4)
Incumbent × Election2002	0.728***	0.710***	0.701***	0.701***
	(0.006)	(0.007)	(0.007)	(0.007)
Incumbent × Election2008	0.735***	0.718***	0.715***	0.715***
	(0.005)	(0.005)	(0.006)	(0.006)
Incumbent × Election2014	0.750***	0.731***	0.724***	0.724***
	(0.004)	(0.004)	(0.005)	(0.005)
Incumbent × Election2020	0.671***	0.651***	0.659***	0.659***
	(0.004)	(0.004)	(0.004)	(0.004)
Municipality FE	No	Yes	Yes	Yes
Time FE	No	No	Yes	Yes
Municipal Controls	No	No	No	Yes
Observations	263437	263434	263434	263434
Municipalities	1881	1878	1878	1878
R-squared	0.36	0.39	0.39	0.39

Notes: This table reports regression results for Equation (2). Municipal Controls consists of a vector of population covariates and council size. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

Table 3: Diff-in-Diff: Covid-19 and incumbency advantages

Dep. var.: Reelected	(1)	(2)	(3)
Year=2014	0.025***	0.027***	0.014
	(0.007)	(0.008)	(0.013)
Year=2020	-0.051***	-0.044***	-0.056***
	(0.007)	(0.010)	(0.019)
Treatment=1 × Year=2014	-0.032	-0.022	-0.014
	(0.022)	(0.020)	(0.020)
Treatment=1 × Year=2020	-0.059**	-0.051**	-0.046**
	(0.025)	(0.020)	(0.021)
Municipal level controls	No	Yes	Yes
Municipality FE	No	No	Yes
Observations	39869	32912	32909
R-squared	0.01	0.01	0.07

Notes: This table reports regression results for Equation (3). In Column (1), the base year is 2002, while in columns (2)-(3) 2008 is the base year since we add municipality characteristics which are only available starting from 2008. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

Table 4: Mechanism: Covid-19 and incumbency advantages, by personal characteristics

	Party		Gender		Age			University	
Dep. var.: Reelected	Left	Right	Female	Male	Young	Middle	Old	Yes	No
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year=2014	0.013	0.015	-0.025	0.021	0.043	0.011	0.001	-0.012	0.031*
	(0.030)	(0.017)	(0.031)	(0.014)	(0.101)	(0.021)	(0.025)	(0.029)	(0.017)
Year=2020	-0.045	-0.030	-0.092*	-0.051**	-0.053	-0.072**	-0.132***	-0.089**	-0.064**
	(0.046)	(0.027)	(0.049)	(0.021)	(0.148)	(0.034)	(0.040)	(0.044)	(0.027)
Treatment=1 × Year=2014	0.043	-0.012	0.040	-0.022	0.005	-0.018	0.025	0.019	-0.035
	(0.036)	(0.031)	(0.033)	(0.024)	(0.119)	(0.034)	(0.039)	(0.035)	(0.032)
Treatment=1 × Year=2020	0.013	-0.043	0.015	-0.059**	0.166	-0.033	-0.035	-0.020	-0.063*
	(0.037)	(0.027)	(0.045)	(0.023)	(0.146)	(0.041)	(0.035)	(0.036)	(0.035)
Municipal level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6704	16618	6154	26481	658	10614	9805	8789	18907
R-squared	0.15	0.10	0.21	0.08	0.42	0.13	0.14	0.16	0.10

Notes: This table analyzes heterogeneous effects of Covid-19 on the reelection probability of incumbents with different party affiliations, gender, age and education levels. Regressions only include data on the specific subsamples of incumbents as indicated above each column. We code SPD and the Greens as left-wing; and CSU, FDP and FW as right-wing. The candidates under 40 are categorized as young, above 55 as old and the remainder as middle-aged. The year 2008 is omitted as the base year. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors in parentheses. The unit of clustering is the municipality of the candidate.

Table 5: Mechanism (cont'd): Covid-19 and incumbency advantages, by qualification/profession

Dep. var.: Reelected	All incumbents (1)	With University degree (2)	Without University degree (3)
Year=2014	0.022	-0.020	0.034*
	(0.014)	(0.029)	(0.017)
Year=2020	-0.059***	-0.098**	-0.062**
	(0.021)	(0.044)	(0.027)
Treatment=1 × Year=2014	-0.013	0.032	-0.041
	(0.024)	(0.037)	(0.032)
Treatment=1 × Year=2020	-0.050**	-0.004	-0.067*
	(0.024)	(0.038)	(0.034)
Year=2020 × Covid-relevant=1	-0.004	0.032	-0.104**
	(0.033)	(0.043)	(0.047)
Treatment=1 × Year=2020 × Covid-relevant=1	-0.061	-0.135	0.220
	(0.074)	(0.089)	(0.182)
Municipal level controls	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes
Observations	28158	8690	18907
R-squared	0.08	0.16	0.10

Notes: In this table, we estimate the effect of the Covid-19 outbreak on the reelection probability of incumbents with Covid-19-related (relevant) qualifications and others (triple interaction terms). We define occupations in natural sciences, the health sector and research as relevant. In columns (2) and (3), the incumbents are grouped according to having or not having a university degree. The election in 2008 is omitted and is therefore the base year. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

Online appendix

A.1 Alternative mechanisms

In this section, we continue the discussion of mechanism in Section 6. In particular, we test various alternative mechanism. First, we test whether changes in the turnout rate (and potential changes in mail-voting behavior) due to Covid-outbreaks can explain the incumbency advantage losses. Second, we investigate whether changes in initial list ranks of incumbents play a role. Finally, we analyze whether shifts in party preferences have given rise to the losses in incumbency advantages.[18] Overall, the results indicate that these alternative mechanisms cannot explain our baseline findings.

a.1 Voter turnout and incumbency advantages

Previous literature investigates the effect of turnout on incumbents' electoral performance. Godbout (2013); Hansford and Gomez (2010); Martins and Veiga (2014); Trounstine (2013) report a negative effect of a higher voter turnout on incumbents' electoral success. Theory suggests that a higher turnout can indeed be linked to incumbency advantage losses (Grofman, Owen, and Collet, 1999). However, Frank, Stadelmann, and Torgler (2020) find that an increase in turnout actually leads to an increase in incumbent's vote share for Bavarian mayors.

Table C.3 first investigates whether early Covid-outbreaks in Bavaria had any effect on electoral turnout in local council elections. Model (1) includes various municipal control vari-

[18] An alternative story could be that incumbent local councilors witnessed a lower reelection rate in treated municipalities because voters punished them for the school closures (retrospective voting). However, at the time of the election it was yet too soon to evaluate the effectiveness of school closures given their novelty as most schools were closed about 5-7 days before the election date. Moreover, it is difficult to say if citizens favored or opposed the school-closing decisions. Only later when schools all over the country were closed for several weeks, did parents and child psychologists, etc. start to question these measures. More importantly, the closures were decided at the county level and not by municipal councils which makes it less likely that voters would punish local councilors for something that is beyond their control.

ables and Model (2) adds municipality fixed effects. We find that there is a significantly positive effect of Covid-19 outbreaks on voter turnout in 2020, i.e. the turnout rate in treated municipalities is almost 1.3% higher than in control municipalities. This result corresponds with the findings in Blesse, Kerler, and Rösel (2020) and Leininger and Schaub (2020) where they report a positive relationship between voter turnout in council elections and local exposure to Covid-19 in Bavaria.

Can this increase in electoral turnout explain the incumbency advantage losses in treated municipalities? To investigate whether turnout is the mechanism that drives our baseline results, we re-estimate our baseline specification including electoral turnout as a control variable. The results are collected in Table C.4.

The results for Model (3) suggest that higher turnout by 10 ppts decreases the reelection probability of an incumbent by only 0.03%. This effect is statistically significant but quite small in size. What is more important is that the coefficient for our main variable of interest is statistically significant and almost as large as in the baseline estimations (4.2ppt). Thus, while turnout appears to matter slightly as a mechanism, the bulk of the effect of Covid-19 outbreaks on incumbency advantage losses cannot be explained by changes in the turnout rate.

Additionally, one may hypothesize that Covid-outbreaks led to a larger share of mail-voting. Thus, in treated municipalities voters may have used mail-voting more frequently than in control municipalities to avoid a potential infection at the ballot box.

Here, it should be noted, however, that mail-votes in Germany typically have to be sent in already a couple of days before the election to the municipal administration. Thus, it is likely that only those municipalities where schools were closed at least more than a week before the election witnessed a rise in mail-voting. This criterion applies to 16 out of the 105 treated municipalities. In Figure C.2 we use municipality-level panel data on the share of mail-voting in all elections since 2002 and distinguish between three groups of municipalities (early treated, late treated and control group).[19]

[19]Data on mail voting was obtained from the Bavarian Statistical Office on a special request.

Figure C.2 shows that the Covid-outbreaks did not affect the share of mail-voting across the three groups of Bavarian municipalities. What we rather observe is a continuation of a general secular increase in mail-voting all across Bavaria.

a.2 Initial list ranks and incumbency advantages

As mentioned in Section 2.2, although the initial rank of a candidate has no direct effect on the election outcome, it may signal the quality of a candidate to voters. Moreover, when a number of votes allocated to a list by one candidate is not proportional to the number of candidates on that list, higher-ranked candidates mechanically receive more votes than the lower-ranked ones. Table C.7 illustrates that treated municipalities are larger, more densely populated municipalities. In these likely more progressive municipalities, there might have been more pressure to shift old male incumbents down the list and to promote young women. If these had been the case, the incumbency advantage losses in treated municipalities might be artefact of these progressive tendencies. This is what we will investigate in the following.

Figure C.3 shows that generally incumbent candidates are more likely to be placed on higher ranks, which is in line with what one would expect.[20]

Figure C.4 focuses on incumbent candidates only and illustrates for all four elections between 2002 and 2020 whether the overall distribution of initial list ranks for incumbents differs between treated and control municipalities. Overall, the patterns are similar and no systematic differences appear.

Figure C.5 investigates whether the share of incumbents on top initial list ranks (top 10th or 20th percentile) has evolved differently over time between treated and control municipalities. Both subfigures show that this is not the case. Thus, differential developments in the list placement of incumbents cannot explain our baseline findings.

[20]By higher ranks we refer to ranks that are closer to the top of the candidate list.

a.3 Party shares and incumbency advantages

A third potential mechanism for the effect of Covid-19 outbreaks on incumbency advantage losses could be shifts in party vote shares, i.e. voters prefer different parties when facing a crisis and this leads to the fact that incumbents from losing parties lose their seats. To investigate this mechanism, we first estimate a specification that investigates whether there were any shifts in party vote shares due to the treatment effect. We focus on the two main left-wing parties (SPD, Greens) and the three main right-wing parties in Bavaria (CSU, FDP, FW). We run a similar specification as in the baseline but use party vote shares as the dependent variable. These regressions are conducted at the council-election level. The results are collected in Table C.5.

We find that none of the five main parties has witnessed significant shifts in party vote shares in treated municipalities in 2020. This is a first indication that this mechanism is unlikely to drive our baseline results. In addition, we have re-estimated our baseline specification while including party dummies. Thus, we control for incumbents' party affiliation. The results are collected in Table C.6.

The results are again almost the same as for the baseline specification. Overall, we conclude that shifts in party vote shares do not explain the baseline results.

B.1 Additional information on data collection and cleaning

b.1 Details on the collection of the council election data

The data collection process is described in Baskaran and Hessami (2019). Following this arrangement, the most recent election, held in March 2020, was included to the dataset in the same way that previous elections had been. Our research assistants downloaded election results from municipal websites, which were typically in pdf format. This data was then manually digitized into standardized Excel tables. In certain cases, candidate flyers provided by the parties were used to acquire information. For prior elections, the mayor's office was also contacted for information that was not available on the internet. However, due to the increased workload of offices as a result of the Covid-19 outbreak, this was not done for the 2020 election. Using the municipal code and year, the Excel files were then integrated into a single dataset. Because data collection by hand is prone to errors, a variety of plausibility tests were performed to assure data quality. When errors were discovered, they were either fixed or marked as missing.

Table B.1: Sample attrition: municipalities with vs. without data on local elections

Variable	Not in sample	In sample	Difference	Std. Error	Obs.
Log(Population)	8.03	7.66	-0.372	0.454	2056
Log(Pop$\leq$ 14)	6.21	5.94	-0.263	0.438	2056
Log(Pop15 $-$ 65)	7.62	7.23	-0.386	0.454	2056
Log(Pop$\geq$ 65)	6.23	5.81	-0.422	0.478	2056
Log(Revenues p.c.)	7.61	7.68	0.072	0.110	2056
Log(Transfers p.c.)	5.35	5.10	-0.254	0.252	2056
Councile Size	15.96	13.63	-2.331	2.971	2056
% Woman	18.07	10.99	-7.078*	3.856	2056
% CSU	25.13	7.40	-17.737*	9.822	2056
% SPD	10.34	3.18	-7.164	6.039	2056
% Gruene	2.13	2.14	0.008	2.131	2056

Notes: This table compares the characteristics (averaged over 1991-2020) of the 2,052 municipalities for which we were able to collect candidate-level data for at least one election and the 4 municipalities that are missing in our hand-collected sample. Only the election variables are given for the period 2002-2020.

b.2 Details on fuzzy matching of council and mayoral candidates

Data availability varies across election years and is most complete for 2020. To obtain additional information on birth year and occupation for previous elections and also to identify incumbent candidates, we match the same candidates with the use of a fuzzy match approach.[21] Our goal is to identify the same persons that participated in more than one election. For that, we use first and last names of candidates together with their list as an input for the match. They are combined into one string and the string is stripped off all special characters.

To ensure that the same candidates are matched, we standardize the list and party names to the point where different abbreviations in various years result in matches. For known large parties this is done automatically. However, for various lists that exist only at the local level, this procedure required manual checking. Our student assistants went through all municipalities and compared the list names. The names are unified if two similar-sounding list names appear only in different years. Example: in Nuremberg, in one year a list is called dg and in another year Die Guten. While this does rely on eyeballing to some extent, we feel that errors are rare because not only the list but also the names must be similar for a match.

Candidates are matched only within municipalities. The tolerance of the fuzzy match ensures that spelling mistakes and minor deviations are not an obstacle. However, there are certain drawbacks to this strategy. It is unable to identify individuals who have migrated to other towns or who have changed lists between years. Changes in names as a result of marriages are also unnoticeable. Also, it is impossible to rule out the possibility of two people with the same name living in the same municipality and on the same list. However, we believe that these inaccuracies are unrelated to outcomes, and hence are not a cause for concern.

[21] We use the Stata command strgroup by Julian Reif (University of Chicago).

C.1 Additional tables and figures

c.1 Robustness: tables and figures

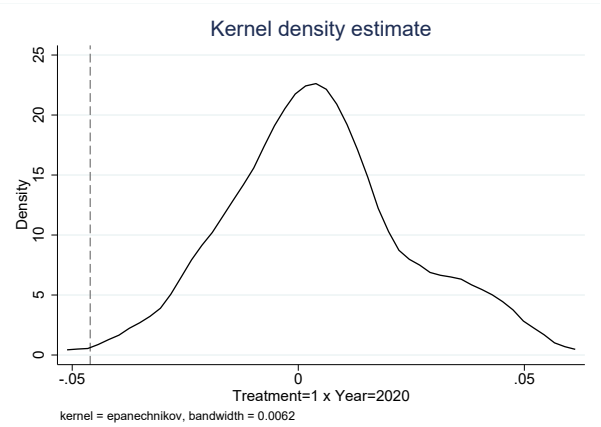


Figure C.1: Robustness I: Densities of estimates under the null hypothesis obtained through resampling. The null hypothesis is that the random draws of the treatment group yield larger coefficients than the true treatment group. The vertical dashed line indicates the location of the estimate under the implemented treatment assignment. The more to the left left/right this line is located, the more likely we are to reject the null hypothesis.

Table C.1: Robustness II: Balanced municipality-level panel

Dep. var.: Reelected	(1)	(2)	(3)
Year=2014	0.019***	0.030***	0.015
	(0.006)	(0.008)	(0.013)
Year=2020	-0.059***	-0.038***	-0.055***
	(0.006)	(0.010)	(0.019)
Treatment=1 × Year=2014	-0.021	-0.022	-0.015
	(0.020)	(0.021)	(0.020)
Treatment=1 × Year=2020	-0.060***	-0.057***	-0.047**
	(0.020)	(0.021)	(0.021)
Municipal level controls	No	Yes	Yes
Municipality FE	No	No	Yes
Observations	26522	26370	26370
R-squared	0.01	0.01	0.05

Notes: This table represents DiD results with a smaller sample of municipalities where data is available for the period of 2008-2020. 2008 is omitted and is therefore the base year. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors in parentheses. The unit of clustering is the municipality of the candidate.

Table C.2: Robustness III: Variation in treatment intensity

Dep. var.: Reelected	(1)	(2)	(3)
Year=2014	0.023***	0.026***	0.014
	(0.007)	(0.008)	(0.012)
Year=2020	-0.054***	-0.045***	-0.058***
	(0.007)	(0.010)	(0.019)
Year=2014 $\times$ Treatment Intensity	-0.002	-0.002	-0.003
	(0.003)	(0.002)	(0.002)
Year=2020 $\times$ Treatment Intensity	-0.005*	-0.005**	-0.007***
	(0.003)	(0.002)	(0.002)
Municipal level controls	No	Yes	Yes
Municipality FE	No	No	Yes
Observations	39869	32912	32909
R-squared	0.01	0.01	0.07

Notes: This table reports results for the specification given in section 5.3. Treatment intensity represents the average length (days) of school closures in municipalities and takes value of zero for the municipalities where there was no school closed due to Covid. In Column (1), the base year is 2002 and in the rest of the table 2008 is used as the base year since we add municipality characteristics which are only available starting form 2008. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

c.2 Mechanisms: tables and figures

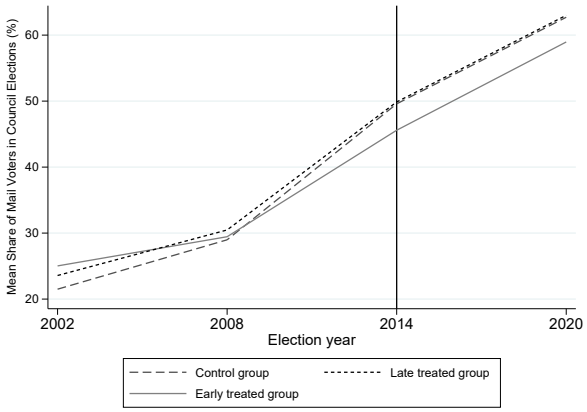
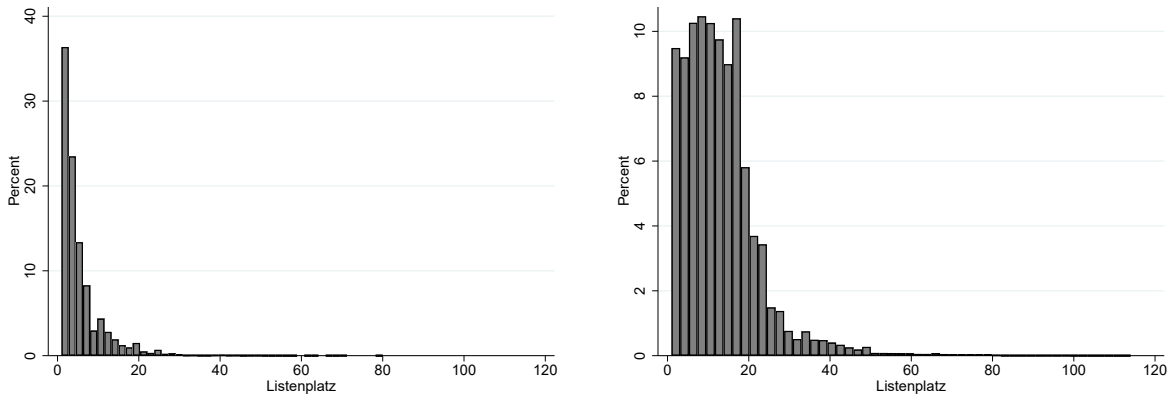


Figure C.2: Share of postal voting in Bavarian local council elections. This graph illustrates the share of mail-votes in council elections across treated and control municipalities over time. The dashed line refers to the control group, while the treatment group is subdivded into 16 early treated (solid line) and 89 late treated (dotted line) municipalities. We classify those municipalities as "early treated" where schools were closed until a week before the elections (March 8). For administrative reasons postal ballots have to be sent in already a couple of days before the election day.



(a) Incumbents **(b)** Non-incumbents

Figure C.3: Distribution of initial list ranks of incumbent vs. non-incumbent candidates. This figure compares the distribution of initial list ranks between incumbent (Subfigure (a)) and non-incumbent (Subfigure (b)) candidates for local councils in Bavaria across all elections included in the sample. The individual bars in both subfigures indicate the percentage of incumbent candidates with a particular initial list rank.

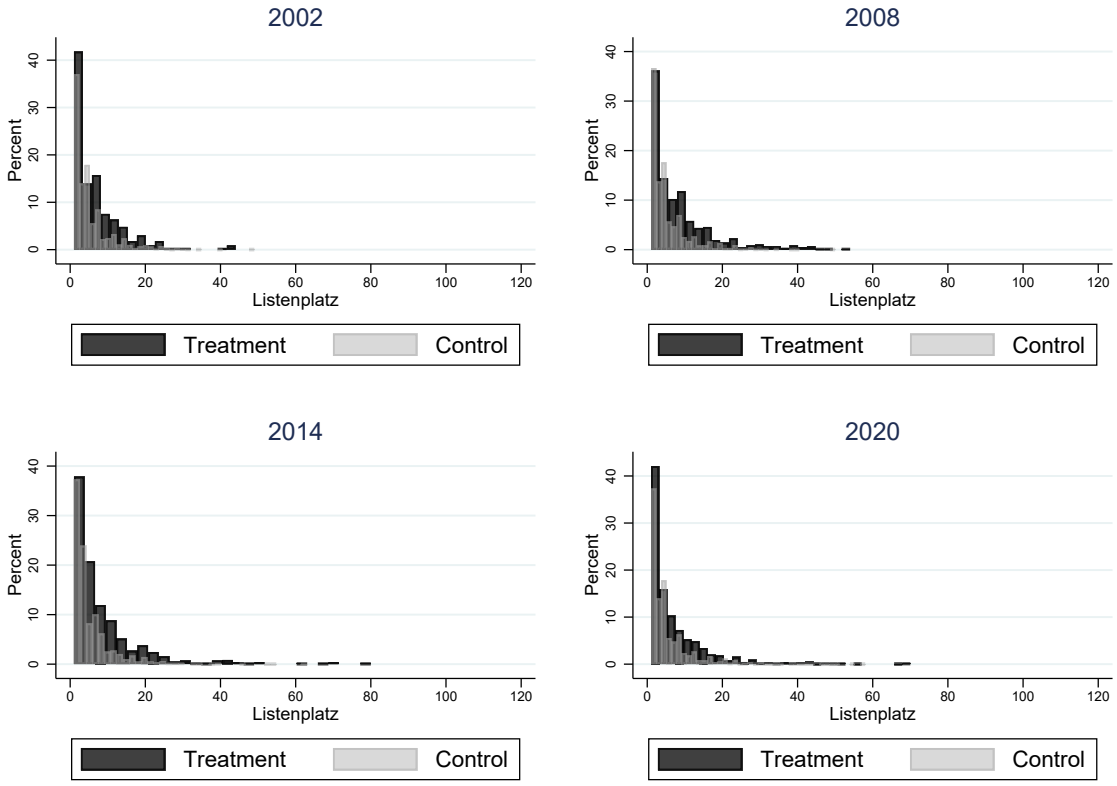
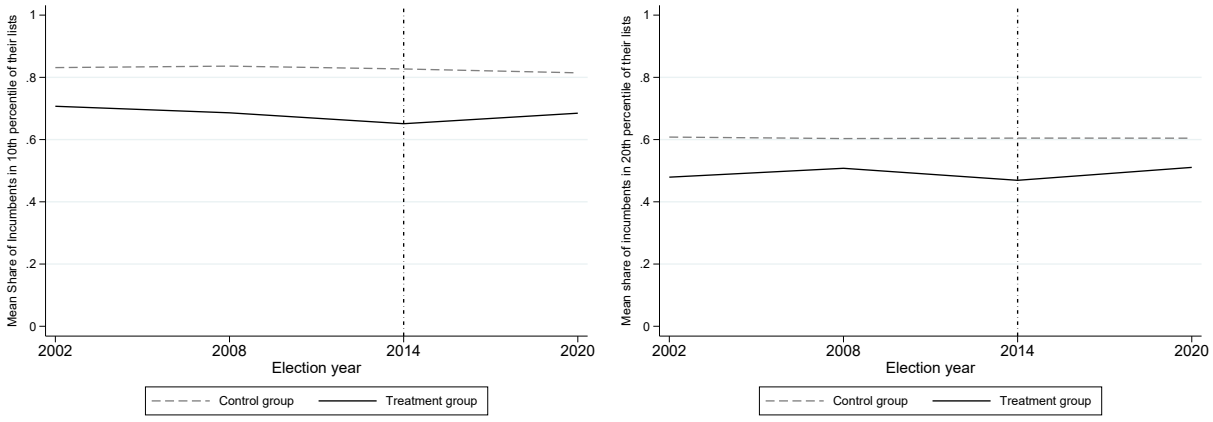


Figure C.4: Distribution of initial list ranks of incumbents in treated vs. control municipalities.
This figure compares the distribution of initial list ranks of incumbents (*Listenplatz*) in treated vs. control municipalities over time. Each of the four subfigures refers to one of the elections between 2002 and 2020. The individual bars in each subfigure indicate the percentage of incumbent candidates with a particular initial list rank.



(a) 10th percentile **(b)** 20th percentile

Figure C.5: Share of incumbents on top initial list ranks. This figure illustrates how the average share of incumbent local council candidates in the 10th (Subfigure (a)) and 20th (Subfigure (b)) percentiles of the initial list rank distribution evolves over time in treatment vs. control group municipalities.

Table C.3: Mechanism I: Covid-19 and turnout

Dep. var.: Turnout Rate	(1)	(2)
Year=2008	-2.729***	-3.191***
	(0.208)	(0.266)
Year=2014	-6.539***	-7.129***
	(0.381)	(0.436)
Year=2020	-4.585***	-4.982***
	(0.475)	(0.587)
Treatment=1 × Year=2008	-0.376	-0.293
	(0.520)	(0.516)
Treatment=1 × Year=2014	-0.708	-0.576
	(0.575)	(0.562)
Treatment=1 × Year=2020	1.147*	1.270**
	(0.641)	(0.638)
Municipal level controls	Yes	Yes
Municipality FE	No	Yes
Observations	8224	8224
R-squared	0.41	0.82

Notes: In this table, we estimate if the turnout rates in council elections in municipalities with and without school closures were differently affected in the emergency times. Year 2002 is the base year. We report results with municipal controls and fixed effects. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

Table C.4: Mechanism I (cont'd): Controlling for turnout

Dep. var.: Reelected	(1)	(2)	(3)
Year=2014	0.022***	0.018**	0.004
	(0.007)	(0.008)	(0.013)
Year=2020	-0.053***	-0.049***	-0.061***
	(0.007)	(0.010)	(0.019)
Treatment=1 × Year=2014	-0.033	-0.025	-0.016
	(0.022)	(0.020)	(0.020)
Treatment=1 × Year=2020	-0.059**	-0.050**	-0.042**
	(0.025)	(0.020)	(0.021)
Turnout	-0.000*	-0.002***	-0.003***
	(0.000)	(0.000)	(0.001)
Municipal level controls	No	Yes	Yes
Municipality FE	No	No	Yes
Observations	39869	32912	32909
R-squared	0.01	0.01	0.07

Notes: In this table, we re-estimate the baseline model in Table 3 by additionally controlling for the turnout rate. Year 2002 is the base year. We report results with municipal controls and fixed effects. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

Table C.5: Mechanism III: Covid-19 and party vote shares

	Left-wing parties		Right-wing parties		
Dep. var.: Party vote shares	SPD	Gruene	CSU	FDP	FW
	(1)	(2)	(3)	(4)	(5)
Year=2014	-0.969	1.588**	-1.099	-1.941**	-0.390
	(0.781)	(0.668)	(0.908)	(0.849)	(1.302)
Year=2020	-4.437***	5.362***	-3.060**	-1.201	-1.897
	(1.271)	(1.186)	(1.530)	(1.718)	(2.246)
Treatment=1 × Year=2014	0.420	-0.508	0.042	-0.287	-0.559
	(0.848)	(0.743)	(1.188)	(0.773)	(3.362)
Treatment=1 × Year=2020	-0.094	1.035	-2.095	-0.580	0.820
	(1.038)	(0.786)	(1.376)	(0.911)	(3.792)
Municipal level controls	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes
Observations	1456	566	2123	246	1175
R-squared	0.88	0.89	0.86	0.78	0.88

Notes: This table reports DiD estimates with party vote shares as outcome variable. Year 2008 is reported as a base year. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

Table C.6: Mechanism III (cont'd): Controlling for party affiliation

Dep. var: Reelected	(1)	(2)	(3)
Year=2014	0.023***	0.027***	0.015
	(0.007)	(0.008)	(0.013)
Year=2020	-0.054***	-0.044***	-0.055***
	(0.007)	(0.010)	(0.019)
Treatment=1 × Year=2014	-0.027	-0.021	-0.015
	(0.022)	(0.020)	(0.020)
Treatment=1 × Year=2020	-0.055**	-0.050**	-0.046**
	(0.025)	(0.020)	(0.021)
Party-level dummies	Yes	Yes	Yes
Municipal level controls	No	Yes	Yes
Municipality FE	No	No	Yes
Observations	39862	32905	32902
R-squared	0.01	0.02	0.07

Notes: In this table, we re-estimate the baseline model in Table 3 by additionally controlling for the party affiliations. In Column (1), the base year is 2002 and in the rest of the table 2008 is used as the base year since we add municipality characteristics which are only available starting from 2008. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is the municipality of the candidate.

c.3 Further figures

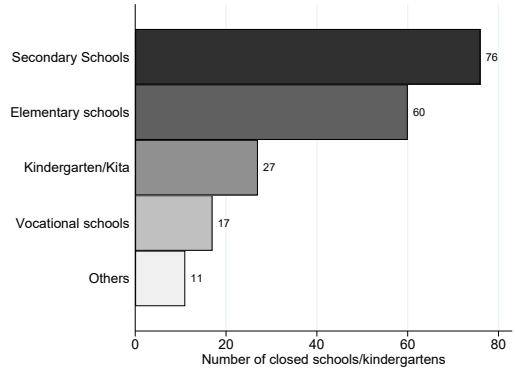


Figure C.6: Closures across types of institutions. This bar chart displays the number of closures according to types of institutions. The groupings represent the German daycare and schooling system: secondary schools *(Gymnasium, Realschule, Hauptschule, Mittelschule, Gesamtschule)*, vocational schools *(Berufsschule, Fachschule)*, elementary schools *(Grundschule)* and daycare facilities *(Kindergarten, Kindertagesstätte)*.

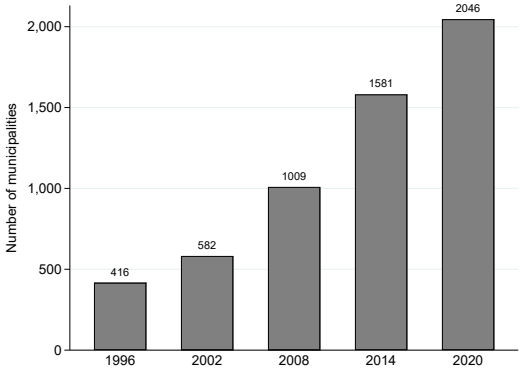
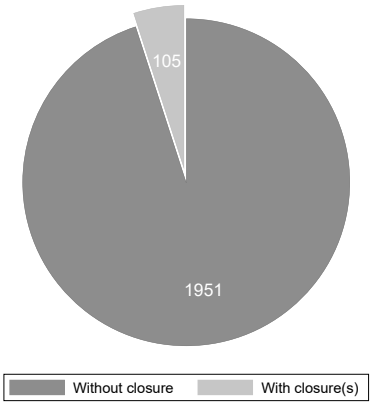
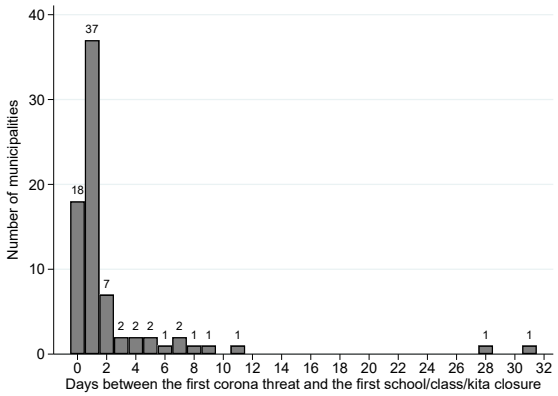


Figure C.7: Data coverage on council elections The bar chart shows the number of municipalities included in our sample in each legislative period. This corresponds with the number of elections for which we have data.



(a) Municipalities with school/daycare closures



(b) School/daycare closure timelag

Figure C.8: Summary statistics on school/daycare closures. Subfigure (a) illustrates the number of municipalities where schools had been closed prior to the 2020 elections on March 15 (based on news from Ausburger Allgemeine and Merkur). Subfigure (b) illustrates how many days after the first confirmed case of Covid-19 the schools/daycares started to close. Most closures took place right after the virus was detected in a municipality.

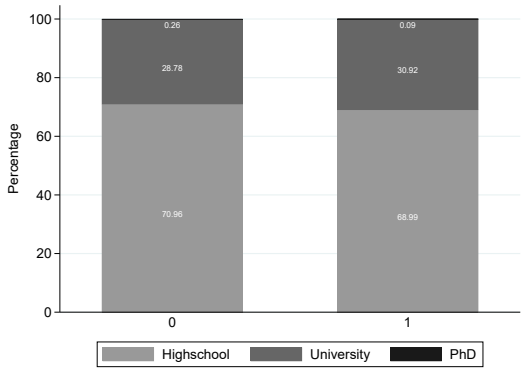


Figure C.9: Educational attainment and gender of candidates in the 2020 election. This bar chart displays the educational attainment of male and female candidates in the 2020 election.

c.4 Further tables

Table C.7: Summary statistics: municipalities in control vs. treatment group

Variable	Control	Treatment	Difference	Std. Error	Obs.
Log(Population) 1991-2020	7.96	9.31	1.350***	0.086	2052
Population density (1k/km2) 1991-2020	0.16	0.57	0.401***	0.026	2052
Aged 65 or above (%) 1991-2020	0.17	0.17	0.003	0.003	2052
Aged under 14 (%) 1991-2020	0.16	0.16	-0.009***	0.002	2052
Log(Revenues p.c.) 1991-2020	7.60	7.71	0.109***	0.022	2052
Log(Transfers p.c.) 1991-2020	5.37	5.00	-0.375***	0.050	2052
Council Size 2002-2020	15.45	25.30	9.853***	0.553	2052
% Woman 2002-2014	16.57	24.53	7.962***	0.787	2052
% CSU 2002-2014	25.10	33.42	8.326***	2.036	2052
% SPD 2002-2014	10.71	17.87	7.158***	1.282	2052
% Gruene 2002-2014	1.20	4.63	3.425***	0.338	2052

Notes: This table compares the characteristics (averaged over the given period) of the 105 municipalities which we use as a treatment group in our diff-in-diff setup and the other 1,947 municipalities that belong to the control group.

Table C.8: Mechanism III: Covid-19 and incumbency advantages, by parties

	Left-wing parties		Right-wing parties			Local parties
Dep. var.: Reelected	SPD	Gruene	CSU	FDP	FW	
	(1)	(2)	(3)	(4)	(5)	(6)
Year=2014	0.010	-0.008	0.027	-0.096	-0.028	0.007
	(0.033)	(0.076)	(0.020)	(0.303)	(0.037)	(0.018)
Year=2020	-0.033	-0.169	-0.033	-0.069	-0.040	-0.077***
	(0.050)	(0.135)	(0.031)	(0.546)	(0.061)	(0.028)
Treatment=1 × Year=2014	0.090**	-0.102	0.015	0.093	-0.125*	0.020
	(0.044)	(0.117)	(0.034)	(0.235)	(0.070)	(0.035)
Treatment=1 × Year=2020	0.069	-0.144	-0.013	0.066	-0.138	-0.026
	(0.049)	(0.116)	(0.035)	(0.328)	(0.085)	(0.036)
Municipal level controls	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5448	1182	12320	190	3971	14619
R-squared	0.18	0.29	0.12	0.31	0.19	0.13

Notes: In this table, we estimate the effect of the Covid-19 outbreak on the reelection probability of incumbents with different party affiliations. Here we break down the right- and left-wing groups from Table 4 into individual parties. The election in 2008 is omitted and is therefore the the base year. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Cluster-robust standard errors are in parentheses. The unit of clustering is municipality.