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Electoral Turnout During States of Emergency and Effects on Incumbent Vote Share

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Electoral Turnout During States of Emergency and Effects on Incumbent Vote Shares*

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Abstract

In March 2020, the second ballot of local elections in the German state of Bavaria was held under an official state of emergency due to the Covid-19 pandemic. Bavarian mayors are elected by majority rule in two-round (runoff) elections. Between the first and second ballot of the election, the state government announced a state of emergency with drastic measures to fight the spread of Covid-19, including a shutdown of public life and restrictions to individual mobility. We employ a difference-in-difference setting to contrast turnout of the first and second ballot in 2020 with the first and second ballots from previous elections. The state of emergency led to an increase in turnout of 10 percentage points. This increase in turnout is robust and there is no relevant heterogeneity of the increase across municipalities. We argue that voting is an act of identifying with the collectivity of society which seemed to increase under adverse circumstances. In addition, the emergency induced higher turnout from the difference-in-difference setting is employed as an instrument to analyze the effect of turnout on the vote share of incumbents. Controlling for party affiliations and other factors, the results indicate that incumbents tend to profit marginally from higher turnout.

Keywords: Covid-19, turnout, mayoral elections, voting in crises
JEL Classification: D72

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I. INTRODUCTION

Individual voters may prefer to abstain from voting given that the cost of casting a vote usually exceeds the likelihood that the vote will be decisive (Downs, 1957; Riker and Ordeshook, 1968; Feddersen, 2004). Low turnout is mostly considered socially undesirable; it is said to delegitimate the political mandate and to increase potential distortions from unequal participation (Burnham, 1965; Lijphart, 1997; Garmann, 2019). [1]

Voting in times of emergency or in disaster situations may change voters' calculus on whether to cast a ballot or not. Voting costs may increase, but this negative effect might be balanced out where emergencies foster a sense of community and feelings of civic duty.[2] Civic duty has been identified as a key motivator for voting because citizens feel a moral obligation in a democracy to vote (Riker and Ordeshook, 1968; Tollison and Willett, 1973; Blais, 2000; Feddersen and Sandroni, 2006; Goldfarb and Sigelman, 2010) and can be seen as an "expressive[3] confirmation of identity as a socially responsible person" (Hillman, 2010, p. 405) which might be triggered in an emergency situation. We contribute to the literature on voting that emphasizes the importance of civic duty exploring with the outbreak of the Covid-19 pandemic an exogeneous event that can trigger civic duty and therefore voter turnout. In addition, we provide further evidence on the usefulness to explore voting behavior in times of emergency by employing a difference-in-difference setting for mayoral elections held in the German state of Bavaria during an officially declared emergency, i.e. *during* the Covid-19 pandemic. Only a limited number of studies have previously explored voting behavior in times of an emergency. Research has mainly focused on the *ex post* consequences of a disaster,

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[1] It should be noted that economists are more critical than political scientists about the advantages of higher turnouts (Garmann, 2019). High turnout, for example, may reduce the political knowledge of the average voter (Hodler et al., 2015).

[2] The effect of having been exposed to natural disaster on turnout in the upcoming elections is uncertain (Bechtel and Hainmueller, 2011; Fair et al., 2017; Rudolph and Kuhn, 2017).

[3] For an early discussion on expressive voting see Fiorina (1976).

exploring, for example, whether voters hold elected officials accountable for policy decisions (Healy and Malhotra, 2009).

The global spread of Covid-19 drastically changed public and private life within only a few weeks in early 2020. Besides its threat to public health, the virus brought restrictions to individual mobility and public life (Chan et al., 2020). The *World Health Organization* (WHO) declared the outbreak of Covid-19 a pandemic on March 12, 2020, only three days before the general local election in Bavaria was scheduled for Sunday, March 15. Elections in all Bavarian municipalities are held every six years, during which mayors are elected by majority rule in two-round (runoff) elections. Second ballots are held after two weeks if no candidate attracted a majority in the first ballot. The spread of Covid-19 in Bavaria seemed under control prior to the election and only a few precautionary measures were taken against it at that time. Despite the WHO's pandemic declaration, the Bavarian state government decided to stick to the original date and hold the election.[4] On Monday, March 16 a state of emergency was officially declared by the Bavarian state government, along with a centralization of decision-making powers with respect to the response. The second ballot for the mayoral election was held two weeks later on Sunday, March 29, 2020. Our approach leverages mayoral elections held during the state of emergency to compare the difference in turnout between the first and second ballot to differences in turnout for first and second ballots from previous mayoral elections, i.e. we employ a difference-in-difference setting. Policies to fight Covid-19 were centralized at the state government level when the state of emergency was declared; hence, they are exogenous to municipal politics. All major local campaigning efforts ceased after declaration of the state of emergency.

According to our difference-in-difference estimates, turnout during the state of emergency increased by about 10 percentage points (for an average turnout of 57.4% in the

[4] The neighboring State of Vorarlberg in Austria cancelled their local elections scheduled for the same day.

sample). The effect on turnout is robust to the inclusion of measures for the local infection exposure to the pandemic and other covariates. There is no relevant heterogeneity of the effect of the state of emergency in terms of statistical significance and magnitude across different municipal subsamples. Feelings of civic duty due to the Covid-19 emergency and the fact that the ballot papers were sent directly to eligible voters for postal voting[5] might be possible explanations for the increase in turnout.

In addition, we employ the emergency induced increase in turnout during the second ballot (identified via the difference-in-difference analysis) in an instrumental variable setting to investigate the proportion of votes captured by incumbents. The effect of turnout on incumbent vote shares is usually difficult to identify due to endogeneity related to unobservable factors such as the incumbent's popularity, quality, or valence (Grofman et al., 1999). Employing the increase in turnout due to the emergency as an instrument, we find a positive but usually statistically insignificant effect of voter turnout on incumbents' vote share at the local level.

The remainder of this paper is structured as follows. Section II describes related literature. Section III presents the institutional setting and the state-wide emergency response due to the pandemic. We present our data and identification strategy in section IV. Estimation results are presented in Section V, and Section VI offers concluding remarks.

II. Related Literature

There is a vast existing literature on the drivers of turnout in elections: longer opening hours and proximity to polling stations (Gimpel and Schuknecht, 2003; Haspel and Knotts, 2005; Garmann, 2017; Cantoni, 2020; Potrafke and Roesel, 2020), early voting (Kaplan and Yuan, 2020), concurrent elections (Fauvelle-Aymar and François, 2015; Garmann, 2016; Leininger

[5] In prior elections, postal voting was always possible, but ballot papers had to be requested when voting instructions (including information on postal voting) was sent to voters.

et al., 2018; Garmann, 2019), and – partly for evident reasons – compulsory voting (Fowler, 2013; Jaitman, 2013; Ferwerda, 2014; Bechtel et al., 2016; Hoffman et al., 2017; Bechtel et al., 2018; Gaebler et al., 2020) have been shown to have a positive link with turnout. The relocation of polling stations (Brady and McNulty, 2011), information on the reduction of fines for missed votes (León, 2017) or knowledge of exit poll information (Morton et al., 2015) have a decreasing effect on turnout. The option for postal voting is believed to increase turnout (Luechinger et al., 2007; Gerber et al., 2013; Hodler et al., 2015; Schelker and Schneiter , 2017). But there is counter evidence that suggests an effect of postal voting is heterogenous and that the absence of social pressure reduces turnout (Funk, 2010). Moreover, physical factors such as the weather have been shown to affect turnout: while most studies find a negative effect of bad weather (Shachar and Nalebuff, 1999; Gomez et al., 2007; Hansford and Gomez, 2010; Artés, 2014; Arnold and Freier, 2016; Arnold, 2018; Garcia-Rodriguez and Redmond, 2020), some studies find there is no effect (Knack, 1994; Persson et al., 2014; Meier et al., 2019), and some even suggest a positive effect of bad weather (Lind, 2020).

We contribute to a smaller existing literature analyzing turnout during and after emergencies: in the *aftermath* of natural disasters, turnout has been shown to be both higher (Fair et al., 2017) and lower in more affected areas (Sinclair et al., 2011; Rudolph and Kuhn, 2017). Some analyses do not find a relevant effect of having been exposed to natural disasters on turnout or intentions to vote (Bechtel and Hainmueller 2011; Bodet et al., 2016; Lasala-Blanco et al., 2017). Godefroy and Henry (2016) and Urbatsch (2017) analyze local variations in seasonal digestive infections in French municipalities and influenza prevalence in regions in Finland and the US, respectively. Both suggest that higher numbers of infections are associated with lower turnout. Blesse et al. (2020) and Leininger and Schaub (2020) analyze local exposure to Covid-19 prior to the state of emergency in the first round of the Bavarian local elections in 2020 and find a slightly higher turnout in counties that reported infected persons.

We employ a difference-in-difference strategy and compare first and second ballot turnout across municipalities in Bavaria over different years.

Besides the mere effect on voter participation, implications of higher turnout are relevant. Studies tend to employ rainfall (bad weather) or institutional changes as instruments[6] to estimate the impacts of turnout, particularly on party vote shares: some evidence suggests left-wing parties profit from high turnout (Hansford and Gomez, 2010; Fowler, 2013; Finseraas and Vernby, 2014; Fowler, 2015; Arnold and Freier, 2016), other research indicates that smaller parties profit (Artés, 2014; Ferwerda, 2014) or conservative parties profit (Leininger and Schaub, 2020), and some do not find any specific effects of higher turnout on parties' vote shares (Knack, 1994).[7] There are few studies looking at the effect of turnout on incumbents' electoral success. Theoretically, high turnout in elections where the incumbent stands for re-election might be due to an incumbent's lack of popularity, and this would therefore coincide with low vote shares (Grofman et al., 1999). Studies that try to account for this source of endogeneity suggest that high turnout is detrimental to incumbents (Hansford and Gomez, 2010; Trounstine, 2012; Godbout, 2013; Martins and Veiga, 2014). We contribute to this strand of literature by analyzing the effect of turnout on incumbent vote shares in mayoral elections held during an emergency that is unrelated to the performance of incumbents. In this context, we leverage the fact that incumbents with different political backgrounds experience changes in turnout due to the state government's declaration of a state of emergency.

[6] New evidence suggests that rainfall may not only increase voting costs but may change voting behavior of those who cast a ballot, affecting voters through their emotions (Meier et al., 2019). This may violate the exogeneity assumption in approaches that use weather as an instrument for turnout.

[7] Other studies analyze effects of turnout on other electoral outcomes besides party vote shares, e.g. electoral approval of referenda, among others (Hodler et al., 2015; Aggeborn, 2016; Bechtel et al., 2016; León, 2017; Schelker and Schneiter, 2017; Garmann, 2019; Rudolph, 2020)

III. Institutional Background and the Spread of COVID-19 in Bavaria

Mayoral elections

Bavarian mayors are heads of the municipality's council and administration and also fulfill representational duties.[8] In municipalities with more than 10,000 inhabitants, they are civil servants for the duration of their 6-year-term.[9] Mayors are directly elected by majority rule in two-round (runoff) elections, i.e. a second ballot is held two weeks after the first ballot if no candidate obtains the majority of votes. The two candidates with the most votes in the first ballots enter the runoff election to determine the winner.

Mayoral elections take place on the same date in all 2,056 Bavarian municipalities every six years and are always jointly organized with elections at the county level. Municipalities within each county elect both the municipal council and the council of the county by proportional rule during the first ballot. Voters in so-called "county free" areas only elect the municipal council along with the mayor.[10] Voting dates only differ from the election cycle if mayors have withdrawn or died in previous terms.

For the mayoral elections analyzed here, all eligible voters receive their election documents by post (*not* their ballot papers, at this stage, but the papers containing instructions on voting). These documents contain all necessary information regarding the election, e.g. date, time and polling station, as well as information how to request postal voting. Voters may request postal voting until shortly before the election day; in response they receive the ballot paper and an envelope with prepaid postage to send it back.

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[8] Municipalities in Bavaria provide local infrastructure, primary education facilities, cultural and sport facilities, social and housing assistance, in addition to the organization of local, state and federal elections. Their revenues are composed of taxes set locally like business tax or property tax, fees and rule-based budget allocations from the state and federal government.

[9] In smaller municipalities, mayors are either temporary civil servants or honorary mayors (see Art. 34-39 BayGO for further information on the status of mayors in Bavaria and their duties).

[10] Councils of the city districts are additionally elected in the state capital Munich, only.

Regarding political landscape, the conservative party *Christian Social Union* (CSU) is traditionally the dominating party in local, state, and federal elections in Bavaria. Over the whole period under analysis, the CSU was leading the Bavarian state government. The CSU's position is less prominent for mayoral elections. In addition to state-wide party affiliations, voters' choices for mayors are determined by several other elements; for example, personal characteristics, candidates' ability, their electoral program, and local particularities. There are local parties in numerous municipalities and their candidates regularly win the mayoral elections.[11] Other state-wide parties in mayoral elections are the *Social Democratic Party* (SPD), *Free Voters* (Freie Wähler) and the green party *Bündis90/Die Grünen*.

Elections and the Covid-19 State of Emergency

The first infection with Covid-19 in Bavaria (and Germany) was registered January 27, 2020. This infection chain was stopped. However, as was the case in other countries, the number of recorded infections started rising around the beginning of March. The cumulated number of recorded infections increased to 886 in Bavaria (Bavaria has a population of about 13 million) as of March 15, 2020. As of that date, four people infected with Covid-19 had died.[12]

Before the first round of the mayoral election, authorities at the county level were responsible for deciding on case-related health measures. The strategy for dealing with Covid-19 concentrated on complying with hygiene standards, detecting and preventing infection chains, and isolation of infected persons and their recent contacts. Rulings by the Bavarian state government only prohibited large gatherings with more than 1,000 people. Public universities in Bavaria were in their usual term break. Before the elections, the Bavarian state government

[11] In some municipalities the CSU declines to nominate a candidate, or it even supports another party's candidate.
[12] See daily report from March 15, 2020 of the Robert Koch-Institut (https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Situationsberichte/2020-03-15-de.pdf?__blob=publicationFile)

gave assurances that the risk of infection in polling stations was low. Precautionary measures on the election day included the provision of information material, some disinfectants, and permission to vote using one's own pencils. It was possible to apply for postal voting until the day of the first ballot. Anecdotal information suggests that voters adjusted their behavior to avoid contact in polling stations, relying more on postal voting in comparison to previous local elections.[13] However, the increase in postal voting has been a general trend across recent elections.

In the two weeks before second ballot on March 29, 2020, rising numbers of infections prompted a drastic change in communication and an increase in measures to fight the pandemic. One day after the local elections on March 16, the Bavarian state government declared a state of emergency, and with that declaration, centralized decision-making regarding health related measures, among others. Schools and kindergartens were closed. It also decided to shutdown public life by generally prohibiting events and gatherings, closing leisure facilities, restaurants, and shops. Election campaigns based on physical contact were no longer possible. On March 20, the state government prohibited leaving home for any reason except to work, do one's grocery shopping, seek medical care, or take a walk for exercise ("stay at home order").[14]

The spread of Covid-19 and the subsequent measures affected the conduct of the second ballot. In accordance with the Ministry of Interior, Sports and Integration, the Bavarian Ministry of Health and Care decreed that the second ballot would be conducted only by postal vote. Eligible voters were sent the ballot papers directly, i.e. they did not have to apply for them as usual. The second ballot was held as planned – yet under the state of emergency – on March

[13] Demand for ballot-by-mail was high before Covid-19. A reason why voters apply for ballot-by-mail is the size [literally!] of the ballot papers.

[14] See press statement of the Bavarian State Ministry for Health and Care https://www.stmgp.bayern.de/presse/ausgangsbeschraenkung-in-bayern-wegen-coronavirus-pandemie-gesundheitsministerin-huml/, accessed May 26, 2020.

29, 2020. On the same day, the Bavarian Agency for Health and Food Safety reported more than 13,000 infections and 110 fatalities due to Covid-19.

IV. Data and Identification Strategy

Data

We manually compile a dataset for mayoral elections using reports published by the Bavarian State Agency for Statistics after the local elections in 2008, 2014 and 2020. The official reports include electoral results in first and second ballots for all municipalities with more than 10,000 inhabitants at the time of the election.[15] We gather data on the number of eligible persons, voters, valid votes, incumbents, candidates, their party affiliation and election results. We construct turnout and vote shares from this information as well as variables for the candidate's gender based on first names. The number of infections and fatalities due to Covid-19 at the county level is taken on from the Bavarian Agency for Health and Food Safety and we calculate reported infections and fatalities per 1,000 capita.

As we aim to contrast the difference in turnout for the first and second ballot in 2020 with differences in turnout from first and second ballots in previous years for empirical identification purposes, we analyze mayoral elections that held a first and second ballot. Our final sample includes 494 observations from first and second ballots. 42 observations stem from replacement elections, i.e. elections where a mayor died or left office prior to the official election cycle. Including replacement elections, the time period under analysis covers 2006 to 2020.

Summary statistics for our final sample are provided in Table A1 of the Appendix. Turnout ranges between a minimum value of 34.3% and a maximum of 77.6%. Mean turnout

[15] We employ data on municipalities with more than 10,000 constituents for reasons of consistency: Results from mayoral elections in smaller municipalities are either provided by the counties or the municipalities themselves. Data availability, structure, and level of detail vary considerably over counties/municipalities and time. Besides that, the number of candidates and extent of electoral competition is usually lower in small municipalities such that second ballots are seldom required. It is only when incumbents withdraw or die in office that replacement elections are needed.

is 57.4% with a standard deviation of 7.6%. Table A2 in the Appendix shows the distribution of mayoral elections with second ballot over time and regions. The absolute number of observations in 2020 is higher than in 2008 and 2014 for two reasons that are unrelated to the state of emergency: First, many replacement mayoral elections were adjusted in 2020 to take place on the normal election dates.[16] Second, in 2020, more candidates competed in the first ballot, resulting in a higher likelihood of a second ballot.

Identification Strategy: Effects of the State of Emergency on Turnout

To identify the effect of the state of emergency on turnout, we employ a *difference-in-difference* setting. We contrast differences between first and second ballots in 2020 to previous years' differences. The state of emergency was declared after the first and before the second ballot in 2020. The state of emergency was generally binding and was decided by the state government; hence, the presence and intensity of mandatory measures can be considered exogenous to municipal politics. To identify the effect of the state of emergency we estimate:

$$Turnout_{itb} = \beta_1 2nd\ ballot_{ib} + \beta_2(Election\ 2020_t * 2nd\ ballot_{ib}) + Covid\text{-}19_{ctb}\gamma + X_{itb}\delta + \theta_i + \mu_t + \varepsilon_{itb} \quad (1)$$

Our unit of observation refers to a municipality in a year and for a certain ballot, i.e. the outcome variable is *Turnout* in mayoral elections in municipality *i*, in year *t* and for ballot *b*. *2nd ballot* is a dummy variable that takes a value of one for second ballots in municipalities. The coefficient β_2 for the interaction term *(Election 2020 * 2nd ballot)* yields the effect of the state of emergency policies on turnout, i.e. it identifies the difference between (1) the difference between the first and the second ballot in normal times and (2) the difference between the first and the second ballot during the state of emergency for the second ballot. We control for the local exposure to Covid-19 at the county level *c* either measured as the cumulated number of

[16] In our final sample, this applies to 26 municipalities.

infections or fatalities due to Covid-19 to account for the risk of infection on turnout. We also add a vector of control variables X_{itb} that captures ballot characteristics such as the number of candidates, or variables indicating whether the incumbent runs for election or whether the candidate is female or not. We also include municipality fixed effects θ_i and account for common time trends and the pandemic by including election year fixed effects μ_t. The error term is denoted by ε_{itb} and standard error estimates are clustered at the municipal level.

A priori, the effect of the state of emergency on turnout and hence the sign of β_2 is unclear. Factors contributing to a negative effect are the decreased local media coverage and restricted election campaigns conducted under no contact rules due to the state of emergency. An increase in feeling of civic duty in a time of crisis, and lower costs involved in casting a ballot due to facilitated postal voting could increase participation. Thus, empirical investigation is needed to assess the sign and magnitude of the effect of the state of emergency.

Identification Strategy: Effects of Turnout on Incumbents

Analyzing the impact of turnout on the share of votes for the incumbent is prone to endogeneity issues, as turnout is affected by the popularity, ability, and quality of candidates.[17] For example, higher political ability of competing candidates is likely to correlate positively with turnout but negatively with an incumbent's vote share; more political competition is likely to correlate positively with turnout but may lead to closer electoral outcomes; turnout may be high because voters want to vote the incumbent out of office due to a perceived lack of political quality. Omitting political ability of incumbents and opponents or political competition leads to a downward bias of regression results (Grofman et al., 1999).

[17] One aspect of political ability is the capacity to motivate voters to cast a ballot at all. A second ballot is usually needed when the incumbent stands for re-election if she faces a competent challenger.

To account for such endogeneity issues (on the share of votes for the incumbent), we exploit variations in turnout due to the state of emergency declared between the first and second ballot in 2020 of equation (1) as an instrument. We implement the following 2SLS approach:

$$(2) \qquad Incumbent's\ vote\ share_{itb} = \alpha_1 \widehat{Turnout}_{itb} + \alpha_2 2nd\ ballot_{ib} + Covid\text{-}19_{ctb}\pi + X_{itb}\lambda + \varphi_i + \tau_t + \upsilon_{itb}$$

The dependent variable measures the *Incumbent's vote share* in municipality *i*, year *t* and ballot *b*. $\widehat{Turnout}$ is the predicted turnout from the difference-in-difference strategy of equation (1) which is implemented through a standard 2SLS, i.e. our instrument is the interaction effect *(Election 2020 * 2nd ballot)*. As before, we include an indicator variable for second ballots, a vector of *Covid-19* related controls, a vector of municipality and ballot specific covariates X_{itb}, municipality fixed effects φ_i and year fixed effects τ_t.

If the introduction of the state of emergency is considered exogenous to local politics, the instrument itself would be exogenous (Nunn and Qian, 2014; Aggeborn, 2016). To be a valid instrument the interaction term in the first stage equation (1) needs to be correlated with *Turnout* (which will be shown). The instrument further needs to be orthogonal to the second stage error term υ_{itb}, conditional on other covariates, i.e. it may influence the *Incumbent's vote share* only via *Turnout*. The introduction of the state of emergency between first and second ballot was decided at the state level and can reasonably be assumed independent of specific municipal politics and incumbent's electoral results. Regarding the exclusions restriction: Both ballots in 2020 took place during the pandemic (the official declaration of the pandemic by the WHO was prior to the first ballot) such that time fixed effects capture effects of the pandemic on incumbents' vote shares. We also control for time variant local exposure to Covid-19. Policy measures enacted to control the spread of Covid-19 may affect voters' perceptions regarding local politics. One day after the first ballot, the Bavarian state government declared a state of emergency to centralize decision-making with respect to the pandemic. From that moment on, mayors and therefore incumbents who stand for re-election were not only bound to the general

instructions and decrees, but essentially lost decision-making competences related to the pandemic. In Bavaria, the Prime Minister Markus Söder from the CSU holds the perceived position of main actor in the crisis receiving approval in Bavaria for his policies during the state of emergency.[18] Thus, rather than an incumbent from another party, we would expect candidates from the CSU to potentially profit from the state of emergency and voters' perceptions. We include the party of the incumbent in our 2SLS regressions as a covariate.

V. RESULTS

Descriptive evidence

Figure 1 shows average turnout in first (dashed or dotted lines) and second (solid line) ballots in 2008, 2014 and 2020. In the first ballot of 2020, turnout is 56.8% for the mayoral election, which is slightly lower than in 2008 (58.8%) and slightly higher than in 2014 (54.0%).[19] The right graph provides a more detailed picture for turnout in first ballots. The right panel splits the sample first ballots conditional on holding a second ballot: In municipalities where a candidate achieves a majority in the first ballot (i.e. there is no second ballot), turnout is always lower than in municipalities where a second ballot is needed. Both dashed and dotted lines for the first ballot evolve in parallel.

Turnout in second ballots evolved differently in 2020. While participation is lower in the second ballots in 2008 and 2014 compared with the first ballots, turnout increased in 2020 and was even higher than in the first ballot of all other election years. Observing a parallel trend in the 2008 and 2014 first *and* second ballots, we expect that turnout would have evolved

[18] See e.g. an article in the online magazine of the Spiegel about Markus Söder as the main manager in the crisis (https://www.spiegel.de/politik/deutschland/coronavirus-markus-soeder-als-krisenmanager-a-ab180d76-bf2a-45f5-bcc6-375ddf52b6a5, accessed 01.06.2020) or survey results, according to which Markus Söder has become the most popular politician during the crisis (https://www.oldenburger-onlinezeitung.de/nachrichten/umfrage-soeder-erstmals-beliebtester-politiker-deutschlands-36787.html, accessed 01.06.2020).

[19] Turnout in first ballots mirrors the general trend in federal and state elections over the last decade, with increasing participation in recent years.

according to that trend if the Bavarian state government had not introduced a state of emergency.

Figure 1 Average turnout in first and second ballots in last three mayoral elections

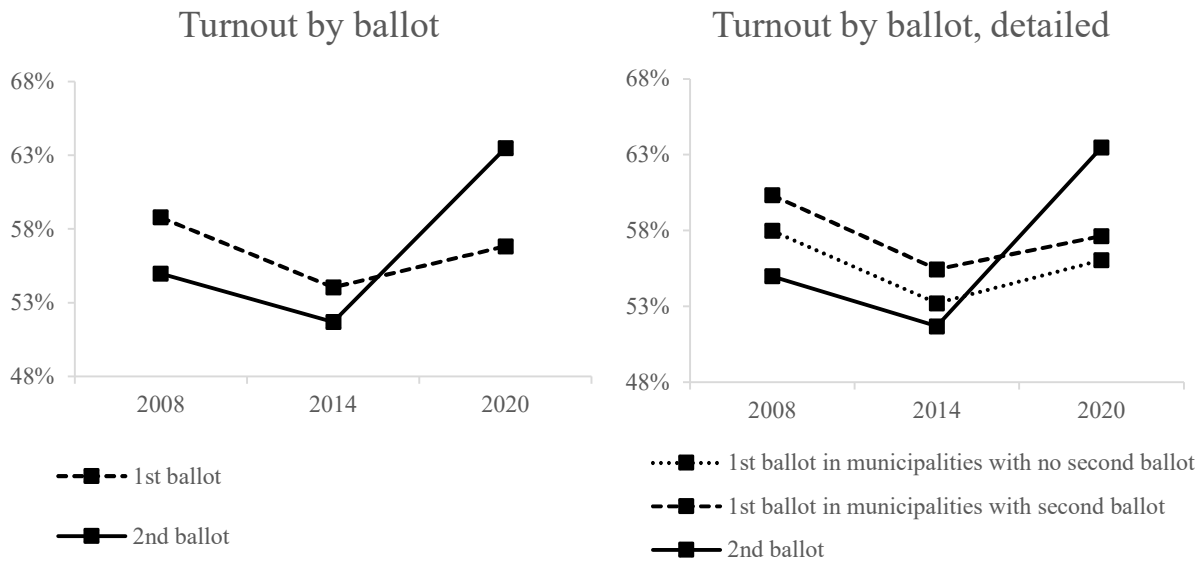

Figure A1 in the Appendix shows histograms for the change in turnout within municipalities from first to second ballot in 2008, 2014 and 2020. Apart from some exceptions, turnout in second ballots generally decreases in 2008 and 2014. In contrast, the turnout for 2020 is higher in second ballots across almost all municipalities.

Difference-in-difference estimation

Table 1 reports results of equation (1) and shows a positive and statistically significant effect of the state of emergency on turnout in the second ballot.

In column (1), we estimate a parsimonious model which only includes a dummy variable for the elections in 2020 and second ballots as well as the interaction term *(Election 2020 * 2nd ballot)*. Turnout in the second ballots of 2020 increases by 10.4 percentage points due to

the state of emergency. The effect is precisely estimated and large in magnitude, corresponding to 18.1% of the mean value of turnout (57.4%).[20]

Table 1 The effect of the state of emergency on turnout.

Dependent variable	Turnout			
	(1)	(2)	(3)	(4)
Election 2020	0.00238			
	(0.00681)			
2nd ballot	-0.0455***	-0.0455***	-0.0455***	-0.0351***
	(0.00281)	(0.00282)	(0.00282)	(0.00513)
(Election 2020)*(2nd ballot)	**0.104*** **	**0.0953*** **	**0.0998*** **	**0.104*** **
	(0.00371)	**(0.00729)**	**(0.00692)**	**(0.00651)**
Cumulated Covid-19 infections		0.00904	0.1000**	0.0927**
per 1,000 capita		(0.00711)	(0.0420)	(0.0430)
(Cumulated Covid-19 infections			-0.0892**	-0.0841**
per 1,000 capita)*(2nd ballot)			(0.0382)	(0.0387)
Incumbent running				0.00230
				(0.00552)
Number of candidates				0.00299**
				(0.00135)
Female candidates				-0.00103
				(0.00462)
Year fixed effects	No	Yes	Yes	Yes
Municipality fixed effects	No	Yes	Yes	Yes
Party controls	No	No	No	Yes
Observations	494	494	494	494
R^2	0.238	0.696	0.698	0.711

Notes: Year fixed effects include controls for the main elections 2008, 2014, and 2020. Rescheduled elections form the control group. Party controls include controls for candidates from the major parties CSU, SPD, BÜNDNIS90/DIE GRÜNEN, FREIE WÄHLER and FDP. Standard error estimates are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

In column (2), we include time and municipality fixed effects as well as the number of *Cumulated Covid-19 infections per 1,000 capita* at the time of the first and second ballot in 2020 (the variable is zero for the ballots prior to 2020). Accounting for Covid-19 infections allows to control for local exposure to the pandemic when investigating the effect of the state of emergency. The point estimate for *(Election 2020 * 2nd ballot)* remains statistically

[20] In second ballots in 2008 and 2014, turnout is on average 4.6 percentage points *lower* than turnout in first ballots.

significant, positive and of similar magnitude suggesting 9.5 percentage points increase in turnout. Local exposure to Covid-19 has a *positive* but statistically insignificant association with participation. In column (3) we allow *Cumulated Covid-19 infections per 1,000 capita* to have a differential impact on turnout in the first and second ballot in 2020 by introducing an interaction. Overall, turnout increases with a higher reported number of infections with Covid-19, but only weakly so in the second ballot; about (0.100 – 0.0892 =) = +0.108 percentage points per 1,000 infections in the county.[21] The effect of the state of emergency on turnout remains positive, statistically significant and almost identical in magnitude.

In column (4), we add further covariates including controls for parties. The *Number of candidates* as a measure for political competition is positively related to turnout. The results on the interaction term's role in identifying the effect of the state of emergency on turnout is positive, statistically significant and of a magnitude of 10.4 percentage points.

Robustness

Table A3 in the Appendix reports robustness tests. As further election related covariates, we account for indicators of parallel elections, winning vote margins as a measure for political competition, and the number of eligible voters in thousands. Moreover, we also investigate the cumulated number of fatalities from Covid-19 per 1,000 people at the county level to account for this dimension of the pandemic. As elections take place on Sundays, reporting of new infections might be delayed. We thus also employ the lagged cumulated number of persons infected with Covid-19. The effect of the state of emergency on turnout remains positive, statistically significant, and almost identical in magnitude as in Table 1 (columns 1-3). The

[21] The standard deviation *Cumulated Covid-19 infections per 1,000 capita* is 0.485. A one standard deviation increase in this measure corresponds to an increase in turnout for the first ballot by (0.1000 * 0.485 =) +4.85 percentage points. The same increase can be associated with a (0.1000 * 0.485 – 0.0892 * 0.485 =) +0.52 percentage points higher turnout in the second ballot.

two-tiered structure of mayoral elections allows us to use municipality-year fixed effects (column 4). The point estimate of the interaction term becomes slightly larger.

Our analysis focusses on municipalities that hold a second ballot. For this reason, we observe the results of mayoral elections with second ballots in different municipalities over time. The estimated effect of the state of emergency on turnout does not depend on the changing composition of municipalities with second ballots. If we drop all observations from mayoral elections except those in 2014 and 2020, our results remain robust in terms of statistical significance and magnitude (column 5). If we keep only municipalities that hold a second ballot both in 2014 and 2020, our results again remain robust in terms of statistical significance and magnitude of the effect.

Results in Table 1 suggest that turnout in the first ballot of 2020 might be associated with the *Cumulated Covid-19 infections per 1,000 capita* and hence, potentially affect the composition of municipalities with second ballots in 2020. In Table A4 of the Appendix we exploit the fact that some counties reported zero infected persons at the time of the first ballot and show in column (1) that having at least one infection is positively associated with turnout, although not at statistically significant levels (see also Blesse et al. 2020). Having an infection does not affect the composition of municipalities holding a second ballot: Columns (2) and (3) in Table A3 show that neither the probability of no candidate achieving a majority, nor the probability of winning vote margins are affected by having at least one infection in the first ballot in 2020. This suggests that the reasons for needing second ballots in 2020 are different from the pandemic.

Heterogeneous Effects on Turnout

Table 2 investigates whether the effect of the state of emergency is heterogeneous with respect to characteristics related to elections, municipalities and the pandemic. We split the sample into distinct subsamples *(a)* and *(b)* according to ten characteristics. Column (1)

provides coefficients and standard errors for the effect of the state of emergency when estimating the same model as in Table 1(4) for the different subsamples. In column (2), we provide 90% confidence intervals for the coefficients from subsamples *(a)* and *(b)*.

In rows (1) and (2), we split our main sample in subsamples according to median turnout in the first ballot and turnout in the second ballot, respectively. In rows (3) and (4), we analyze whether the effect of the state of emergency is different in larger cities using the status as district-free city, and we explore a subsample employing the number of eligible persons as a criterion. In rows (5)-(7), we consider local exposure to Covid-19 as a potential source of heterogeneity and separate subsamples according to the initial number of infections in the first ballot (row 5), the absolute increase in infections between the two electoral dates (row 6), and whether fatalities are reported in the county before the second ballot (row 7). Row (8) explores more and less competitive elections according to the first ballot's results. Row (9) forms subsamples depending on whether voters have the option to elect a candidate from the dominant party (CSU) in the second ballot, as opposed to municipalities where the CSU candidate did not reach the second ballot.

Table 2 Summary of subsample regressions with regard to potential heterogeneity of the effect of the state of emergency

				(1)	(2)
	Sample split by variable	**Sample**	**#Obs**	**Interaction term**	**90% confidence intervals**
(1)	Turnout	(a) Turnout in first ballot is lower than median	248	0.112*** *(0.0114)*	[0.093; 0.131]
		(b) Turnout in first ballot is higher than median	246	0.108*** *(0.0074)*	[0.096; 0.120]
(2)	Turnout	(a) Turnout in second ballot is lower than median	246	0.115*** *(0.0193)*	[0.083; 0.147]
		(b) Turnout in second ballot is higher than median	248	0.107*** *(0.0060)*	[0.097; 0.117]
(3)	District-free cities	(a) District-free cities	66	0.114*** *(0.0189)*	[0.081; 0.146]
		(b) Cities belonging to a county	428	0.103*** *(0.0070)*	[0.092; 0.115]
(4)	Eligible voters	(a) Number of eligible voters lower than median	240	0.100*** *(0.0078)*	[0.087; 0.113]
		(b) Number of eligible voters higher than median	238	0.098*** *(0.0098)*	[0.081; 0.114]
(5)	Covid-19 infections in county	(a) No Covid-19 infection before election day of first ballot	62	0.105*** *(0.0137)*	[0.082; 0.129]
		(b) At least one Covid-19 infection as at election day of first ballot	432	0.106*** *(0.0038)*	[0.100; 0.113]
(6)	Increase in Covid-19 infections in county	(a) Increase in Covid-19 infections smaller than 100	212	0.101*** *(0.0059)*	[0.092; 0.111]
		(b) Increase in Covid-19 infections equal or larger than 100	282	0.111*** *(0.0051)*	[0.103; 0.120]
(7)	Fatalities from Covid-19 in county	(a) No fatality until election day of second ballot	206	0.106*** *(0.0069)*	[0.094; 0.117]
		(b) At least one fatality until election day of second ballot	288	0.106*** *(0.0046)*	[0.098; 0.113]

Table continued on next page

(8)	Vote margin in first ballot	(a) Vote margin is equal or smaller than 5%	132	0.104*** *(0.0085)*	[0.089; 0.118]
		(b) Vote margin is larger than 5%	362	0.104*** *(0.0080)*	[0.091; 0.117]
(9)	CSU candidate	(a) No CSU candidate competes in second ballot	84	0.117*** *(0.0081)*	[0.103; 0.131]
		(b) CSU candidate competes in second ballot	410	0.102*** *(0.0070)*	[0.091; 0.114]
(10)	Incumbent	(a) Incumbent not competing in second ballot	278	0.096*** *(0.0065)*	[0.085; 0.107]
		(b) Incumbent competing in second ballot	216	0.120*** *(0.0097)*	[0.104; 0.136]

Notes: Every row shows regression results for two subsamples of the divided main sample. Column (1) reports the respective point estimates and standard error estimates for the main explanatory variable *(Election 2020)*(2nd ballot)* using the most stringent model as in Table (1) column (4). Column (2) presents the 90% confidence intervals. We drop the variables *Covid-19 infections per 1,000 Capita* and *(Covid-19 infections per 1,000 capita)*(2nd ballot)* from our model in rows (5)-(7), the dummy variable for a CSU candidate competing in row (9) and the variable *Incumbent running* in row (10).

The results from the different subsamples in rows (1)-(9) indicate that the effect of the state of emergency on turnout – as identified through the difference-in-difference setting – is at least 9.8 percentage points and always significantly different from zero. Point estimates in complementary subsamples are similar to each other as 90% confidence intervals always overlap.

In row (10), we divide our sample depending on whether the incumbent competes in the second ballot or not. Again, we find that the state of emergency increases turnout in both subsamples. However, the coefficient for the interaction term in the subsample of incumbents competing in the second ballot is larger than in the subsample without an incumbent competing and confidence intervals only slightly overlap.[22] The difference of both point estimates is 2.4 percentage points. This suggests that voters may value a stable political environment in times of crisis when deciding whether or not to cast a ballot.

Does Turnout Affect the Vote Shares for Incumbents? Evidence from IV Estimates

To analyze whether incumbents profit from (an exogenous) increase in turnout, we restrict the sample to observations from mayoral elections where the incumbent is running in the second ballot.

Panel A of Table 3 shows OLS regressions for the conditional correlation of *Incumbent's vote share* and *Turnout*. The results indicate a clear negative association, i.e. the incumbent's vote share is low when turnout is high or vice versa. After inclusion of Covid-19 related and other covariates in columns (2)-(5), the point estimates are always negative and statistically significant at the 5-%-level. However, OLS estimates are likely to suffer from endogeneity

[22] Incumbents may have withdrawn prior to the elections or did not manage to enter the second ballot due to strong competitors.

issues (Grofman et al. 1999) that induce a negative bias between turnout and an incumbent's vote share, as discussed above.

Table 3 The Effect of Turnout on Incumbent's Vote Share – 2SLS estimates.

Dependent var. (panels A and B)	Incumbent's vote share				
	(1)	(2)	(3)	(4)	(5)
Panel A: OLS FE estimates					
Turnout	-0.138	-0.552**	-0.607***	-0.552**	-0.607***
	(0.115)	(0.219)	(0.178)	(0.219)	(0.178)
R^2	0.491	0.543	0.599	0.543	0.599
Panel B: 2SLS estimates					
Turnout	0.315**	0.332	0.167	0.336	0.167
	(0.125)	(0.272)	(0.257)	(0.265)	(0.257)
Dependent variable (panel C)	Turnout				
Panel C: First-stage estimates					
(Election 2020)*(2nd ballot)	0.106***	0.117***	0.133***	0.119***	0.133***
	(0.00585)	(0.0103)	(0.0113)	(0.0104)	(0.0114)
(Cumulated Covid-19 infections per 1,000 capita)*(2nd ballot)				-0.0685	-0.0302
				(0.0664)	(0.0505)
F-statistic	329.1	129.7	137.5	65.6	70.3
Hansen *J*-statistic (p-value)				0.891	0.972
Controls (for all panels):					
2nd ballot	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes
Covid-19 related controls	No	Yes	Yes	Yes	Yes
Election related controls	No	No	Yes	No	Yes
Party controls	No	No	Yes	No	Yes
Observations	216	216	216	216	216

Notes: Covid-19 related controls include the variables *Cumulated Covid-19 infections per 1,000 capita* and *Fatalities from Covid-19 per 1,000 capita*. Election related controls include controls for the incumbents' gender, *Number of candidates* and *Election head of county administration* and dummy variables indicating whether the incumbent is from CSU or SPD. Party controls include controls for competing candidates from the parties CSU and SDP. Standard error estimates are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Column (1) of Panel C shows the first stage regression result with the interaction term as the instrument. As in Table 1, the point estimates indicate that the state of emergency leads to

a statistically significant increase in turnout of more than 10 percentage points. The first stage *F*-statistic for the excluded instrument suggests that the interaction term is *not* a weak instrument.

Panel B of Table 3 reports the second stage results employing the state of emergency as an instrument for turnout. In contrast to the OLS results in Panel A, the sign for the effect of an (exogenous) increase in turnout becomes *positive* and statistically significant in specification (1). In terms of magnitude, results from 2SLS regressions in column (1) indicate that an increase in *Turnout* of 10 percentage points (estimated average effect of Table 1) leads to an increase in *Incumbent's vote share* by 3.15 percentage points.

We add the cumulated number of infections and deaths related to Covid-19 per 1,000 capita at the county level in column (2). In column (3), we include controls for the incumbent's party and gender, opponents' party, the number of candidates and parallel elections of the county administrator. First stage regression results remain unaffected and highlight the relevance of the state of emergency as a driver for turnout. While the effect of *Turnout* on *Incumbent's vote share* remains similar in terms of magnitude, standard errors increase, and the point estimate becomes statistically insignificant at conventional levels of significance.

Overall, columns (1)-(3) point to a substantial downward bias of OLS regression results, potentially due to omitted variables such as political ability or competition. If turnout increases due to reasons unrelated to political events (such as a state of emergency), our results suggest that incumbents can, if anything, profit from higher voter participation.

In columns (4) and (5), we introduce *Cumulated Covid-19 infections per 1,000 capita* interacted with *2nd ballot* as a second instrument for *Turnout*. First stage results suggest that turnout is slightly smaller if the cumulated number of infections rises in the 2nd ballot, but the

estimate is statistically insignificant.[23] Second stage results resemble those in columns (2) and (3), i.e. they suggest a positive albeit statistically insignificant effect of *Turnout* on *Incumbent's vote share*.

VI. Conclusions

We analyze the effect of a state of emergency on turnout in elections, leveraging the two-round system (runoff) mayoral election in Bavaria held *during* the Covid-19 pandemic for our study. Having declared a state of emergency after the first ballot, state authorities centralized all relevant decision-making prior to the second ballot and introduced lockdown measures. State policies aimed at controlling the spread of Covid-19 are credibly independent from municipal politics. Employing a difference-in-difference setting to contrast turnout in the first and the second ballots, we find a statistically significant and positive effect – amounting to about 10 percentage points – of the state of emergency on turnout in municipal elections.

One potential explanatory factor of the increase in turnout could be that the state government closed polling stations as a part of the state of emergency so that voting was only possible through postal voting. However, the option for postal voting existed prior to the state of emergency, and information on postal voting was sent to voters in previous elections. A higher level of awareness and greater ease of postal voting may have contributed to the higher turnout, but the size of the increase in turnout is substantially higher than suggested by the literature. Thus, it is highly likely the increase cannot be explained fully by postal voting. Higher turnout during the state of emergency might also be (at least partially) due to an increased sense of civic spirit and trust during a non-political crisis and a disaster (Toya and

[23] A second instrument allows us to conduct a Sargan-Hansen test of overidentifying restrictions. As reported in Table 3, we do not reject the null hypothesis that the instruments are uncorrelated with the error term. Thus, next to arguments provided for our identification strategy, standard econometric tests are suggestive that 2SLS provides a causal estimate of the effect of *Turnout* on *Incumbent's vote share.*

Skidmore, 2014; Bol et al., 2020). Blais (2000), in general, stresses that "it seems impossible to make sense of many findings if we reject the notion of duty" (p. 113).

In addition, our analysis also provides insights related to the electoral implications of higher turnout. Using higher turnout due to the state of emergency as an instrument, we tend to find, if anything, a positive effect of turnout on vote shares of incumbents. This effect is quite intuitive: If – due to civic spirit – substantially more voters cast a ballot in a second ballot than cast a first ballot, such voters are likely to be less familiar with and less interested in municipal politics. Instead of gathering information on the complexity of local issues, they may use shortcuts to come to a decision (Stadelmann and Torgler, 2013): Voting for the status quo, i.e. voting for the incumbent, is a simple shortcut in a situation where voters are motivated by public spirit to go to the polls.

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Table A1 Summary Statistics

Variable	Dummy	Obs	Mean	Std. Dev	Min	Max
Dependent variables						
Turnout	No	494	0.574	0.0761	0.343	0.776
Incumbent's vote share	No	216	0.451	0.094	0.195	0.717
Covid-19 related controls						
Cumulated Covid-19 infections per 1,000 capita	No	494	0.231	0.485	0	2.708
Lagged Covid-19 infections per 1,000 capita	No	494	0.209	0.436	0	2.378
Fatalities from Covid-19 per 1,000 capita	No	494	0.0013	0.00442	0	0.0278
Control variables						
Incumbent running	Yes	494	0.455	0.499	0	1
Number of candidates	No	494	3.427	1.876	2	14
Female candidates	Yes	494	0.518	0.500	0	1
Election county administrator	Yes	494	0.524	0.500	0	1
Election state	Yes	494	0.002	0.0450	0	1
Winning vote margin	No	494	0.133	0.104	0.0003	0.604
Eligible voters in thousands	No	478	31.15	104.0	7.551	1,111
Candidate from CSU	Yes	494	0.911	0.285	0	1
Candidate from SPD	Yes	494	0.741	0.439	0	1
Candidate from FREIE WÄHLER	Yes	494	0.188	0.391	0	1
Candidate from Bündnis90/Die Grünen	Yes	494	0.328	0.470	0	1
Candidate from FDP	Yes	494	0.186	0.390	0	1

Table A2 The number of municipalities with second ballots by region and year

year / region	Rescheduled election	2008	2014	2020	Total
Oberbayern	10	24	29	49	112
Niederbayern	2	4	6	12	24
Oberpfalz	0	3	4	6	13
Oberfranken	4	2	3	7	16
Mittelfranken	1	13	7	14	35
Unterfranken	1	8	7	4	20
Schwaben	3	4	9	11	27
Total	21	58	65	103	247

Table A3 Testing for the robustness of the effect of the policies against Covid-19 on turnout

Dependent variable	Turnout					
	(1) Further controls	(2) Fatalities	(3) Lagged infection numbers	(4) Municip. year dummies	(5) Only 2014 and 2020 elections	(6) Municip. with 2nd ballots in both 2014 and 2020
2nd ballot	-0.0290***	-0.0352***	-0.0350***	-0.0329***	-0.0209***	-0.0217***
	(0.00534)	(0.00512)	(0.00515)	(0.00437)	(0.00545)	(0.00788)
(Election 2020)*(2nd ballot)	**0.106*** **	**0.106*** **	**0.104*** **	**0.112*** **	**0.102*** **	**0.0942*** **
	(0.00674)	**(0.00769)**	**(0.00738)**	**(0.00511)**	**(0.00523)**	**(0.00888)**
Cumulated Covid-19 infections per 1,000 capita	0.104**	0.0959**		0.0328	0.0679*	0.0426
	(0.0435)	(0.0451)		(0.0422)	(0.0381)	(0.0460)
(Cumulated Covid-19 infections per 1,000 capita)*(2nd ballot)	-0.0957**	-0.0868**		-0.0350	-0.0662*	-0.0384
	(0.0394)	(0.0409)		(0.0389)	(0.0355)	(0.0413)
Incumbent running	0.00236	0.00202	0.00234	0.00723	-0.00260	-0.00268
	(0.00548)	(0.00548)	(0.00551)	(0.00512)	(0.00724)	(0.00769)
Number of candidates	0.00286**	0.00299**	0.00306**	0.000770	0.00236**	0.00270
	(0.00145)	(0.00135)	(0.00135)	(0.00120)	(0.00119)	(0.00187)
Female candidates	-0.00336	-0.000844	-0.00108	-0.00313	0.00168	0.000827
	(0.00445)	(0.00464)	(0.00457)	(0.00371)	(0.00466)	(0.00762)
Election head of county	0.00632					
	(0.00472)					
Election state	0.0479***					
	(0.00605)					
Winning vote margin	0.0197					
	(0.0154)					
Eligible voters in thousands	0.000724					
	(0.00104)					
Fatalities from Covid-19 per 1,000 capita		-0.312				
		(0.428)				
Lagged Covid-19 infections per 1,000 capita			0.110**			
			(0.0534)			
(Lagged Covid-19 infections per 1,000 capita)*(2nd ballot)			-0.100**			
			(0.0494)			
Year fixed effects	Yes	Yes	Yes	No	Yes	Yes
Municipality fixed effects	Yes	Yes	Yes	No	Yes	Yes
Party controls	Yes	Yes	Yes	Yes	Yes	Yes
Municipality year fixed effects	No	No	No	Yes	No	No
Observations	478	494	494	494	336	148
R^2	0.740	0.711	0.711	0.767	0.826	0.830

Notes: Year fixed effects include controls for the main elections 2008, 2014, and 2020. Rescheduled elections form the control group. Party controls include controls for candidates from the major parties CSU, SPD, BÜNDNIS90/DIE GRÜNEN, FREIE WÄHLER and FDP. Standard error estimates are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table A4 Estimating the effect of local exposure to Covid-19 in the first ballot of the mayoral election on different electoral outcomes

Dependent variable	Turnout	Second ballot is needed (LPM)	Winning vote margin
	(1)	(2)	(3)
(At least one Covid-19 infection)*	0.00839	-0.0465	-0.0321
(Elections 2020)	(0.00650)	(0.0771)	(0.0418)
Year fixed effects	Yes	Yes	Yes
Municipality fixed effects	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Observations	641	641	641
R^2	0.464	0.512	0.432

Notes: This table shows the regression results for the model $Turnout_{it} = \alpha + \beta(At\ least\ one\ Covid\text{-}19\ infection_i)*(Elections\ 2020_t) + \delta_i + \mu_t + v_{it}$ for observations from first ballots only. Year fixed effects capture election specific characteristics and municipality fixed effects capture municipality specific characteristics that are constant over time. Controls include the variables *Incumbent running*, *Number of candidates*, *Female candidates*, *Election head of county administration*, *Winning vote margin* (not included in columns (6)-(7)), *Eligible voters* and controls for the parties of the competing candidates. Year fixed effects include controls for the electoral years 2020, 2014 and 2008. Standard error estimates are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Figure A1 Histograms for the change in turnout within municipalities between first and second ballot