COVID-19 policies in Germany and their social, political, and psychological consequences

Elias Naumann1,2 | Katja Möhring1 | Maximiliane Reifenscheid1 | Alexander Wenz1 | Tobias Rettig1 | Roni Lehrer1 | Ulrich Krieger1 | Sebastian Juhl1 | Sabine Friedel1 | Marina Fikel1 | Carina Cornesse1 | Annelies G. Blom1

1Collaborative Research Center 884 “Political Economy of Reforms”, University Mannheim, Mannheim, Germany
2Center for European Studies, Harvard University, Cambridge, MA, USA

Abstract

Many policy analyses on COVID-19 have been focusing on what kind of policies are implemented to contain the spread of COVID-19. What seems equally important to explore are the social and political consequences of the confinement policies. Does the public support strict confinement policies? What are the social, political, and psychological consequences of the confinement policies? The question of how legitimate a policy is among the public is at the core of democratic theory. Its relevance also stems from the expected consequences of public support on behavior: The more someone supports a policy, the more someone is likely to follow the policy even if the policy is not strictly enforced. In this paper, we will focus on Germany, briefly summarize the main policies during the first 6 weeks of confinement and then explore political attitudes, risk perceptions, and the social consequences of the lockdown.

KEYWORDS
COVID policy, public support, employment, threat and risk perceptions, Germany
1 | INTRODUCTION

Many policy analyses of the COVID-19 pandemic have focused on what kind of policies are implemented to contain the spread of the disease and on how effective these policies are in reducing the number of new infections and deaths. What seems equally important to explore are the political, social, and psychological consequences of the containment policies. In this paper, we focus on Germany and provide an overview of the main policies that were implemented in an attempt to halt the spread of COVID-19 during the first 8 weeks of confinement. We complement this with results of a daily survey, the German Internet Panel (GIP), which allows us to capture the immediate political, social, and psychological consequences of the confinement.

First, does the public support strict confinement policies, and how does this support change over time? The question of how legitimate a policy is among the public and how public opinion and policies are linked is a prominent and widely researched topic in political and social sciences. Theoretical and empirical research support the claim that it is, in fact, an interrelationship: public opinion affects policy-making (Brooks & Manza, 2006; Burstein, 2003; Page & Shapiro, 1983) and policies affect public opinion (Ebbinghaus & Naumann, 2017; Mettler & Soss, 2004; Pierson, 1993). These policy feedback effects then, in turn, alter attitudes (Kumlin & Stadelmann-Steffen, 2014). As lockdown policies have been so quickly introduced and as the public most likely did not have any attitude regarding these policies before the onset of the COVID-19 pandemic, this seems to be one of the few examples where policies were clearly enacted before the emergence of public opinion. Hence, we focus rather on how the lockdown policies might have affected public attitudes. Skocpol (1992:58) refers to policy feedback as the ways “policies, once enacted, restructure subsequent political processes,” and Pierson (1993) distinguishes two main types of feedback effects. First, resource and incentive effects link policies to the self-interest of people since they determine how resources are distributed, provide incentives, and thus shape the costs and benefits of actors. Hence, we would expect that the more threatened people feel by the pandemic, the higher they perceive the risk of being infected to be, and the lower their support is. Moreover, the more apparent the economic costs of the lockdown become over time, the lower the support should be. Second, interpretative effects provide a mechanism to link policies and attitudes via values since they serve as sources of information and meaning. For example, policies “frame the meaning and origins of societal problems by identifying target groups for government action and defining solutions” (Mettler & Soss, 2004:62). Let us take the labor market and possible reasons for unemployment as an example. When the government promotes job-training programs, the focus is on a lack of skills, and when wage subsidies are introduced, the focus is on the structural limitations of the labor market and potential consequences of globalization, whereas strict regulations of the access to unemployment benefits shifts the focus to individual behavior and self-discipline (Gusmano, Schlesinger, & Thomas, 2002). So, policies can alter frames and the way people think about an issue (Chong & Druckman, 2007) and we expect that policies themselves shape the framing and perception of the pandemic and should have an effect on reform preferences but also on risk perceptions.

Second, we explore the social consequences of the lockdown and particularly focus on the labor market. The closure of non-essential businesses but also macro-economic consequences of the global COVID-19 crisis had an immediate effect on the labor market and led to lay-offs and short-time work (see for example Fuchs-Schündeln, Kuhn, & Tertilt, 2020). Moreover, many employers extended possibilities for remote work and flexible work arrangements so that employees had the opportunity to work and to stay at home. At the same time, employees in essential areas of the economy who are not able to work remotely face an increased risk of being infected. Do these negative consequences affect everyone equally? We would rather expect the opposite. Germany’s labor market is characterized by a pronounced “insider–outsider” divide and has a considerable amount of low wage and fixed-term...
employment, while the core workforce in standard employment is well protected by labor regulations (Emmenegger, Häusermann, Palier, Seeleib-Kaiser, 2012). Hence, immediate lay-offs, for example, are not possible for those in regular employment. Furthermore, labor market measures to buffer the negative crisis consequences for employees and companies are mostly targeted at the core workforce. As for the possibilities to work remotely, most jobs in which this is a viable option are in well-paid occupations that require a high level of education (Dingel & Neiman, 2020). In summary, we expect that existing social inequalities will rather be increased by the confinement policies.

Third, we examine the psychological consequences of the lockdown. We explore the extent to which people feel threatened by COVID-19. Feelings of threat play an important role in shaping attitudes and behavior. If threat perceptions are too low, people might not support confinement policies or might not follow them if they are not strictly enforced. Too strong threat perceptions might impair people in their daily lives if, for example, they do not leave their home any more. Moreover, there is a growing political economy literature that argues that subjective (mis-)perceptions of societal trends are very important in explaining political attitudes and behavior. For example, Alesina, Miano, and Stantcheva (2018) show that natives’ usually overestimate the share of migrants and underestimate their labor market integration. These misperceptions are then one important factor in understanding anti-migrant attitudes. Similarly, we would expect that people rather overestimate their own infection risk (overestimation of small probabilities) but over time they might adapt their perceptions to reality (see Breznau, 2020).

In what follows, we will first provide a brief overview of how the COVID-19 pandemic unfolded in Germany and how the government reacted to it. This provides the background against which we will then present our results and will show how public attitudes and perceptions changed during this period.

2 COVID-19 POLICIES IN GERMANY

In Figure 1, we provide a summary of the first half of 2020 and show daily case numbers and the cumulative numbers of deaths in Germany. Moreover, the government response index shows the reaction of the German government to the pandemic aggregating containment and closure policies, economic policies, and health system policies (Hale, Webster, Phillips, & Kira, 2020).

The initial period of the COVID-19 pandemic in Germany resembles very much the experience of many other European countries. The government knew about COVID-19 in China and its potential threat also for Europe already in late December 2019. Yet, the first confirmed case in Germany was found on January 27, 2020. The government response to this was the introduction of contact tracing systems, the mandated isolation of the few infected people, and a first information campaign mainly recommending good hand hygiene and reassuring the population that the isolation of the infected worked well in keeping the virus at bay. The situation did not change until the end of February when the number of confirmed infections started to increase, in particular in some local hotspots. Moreover, the Italian experience with the pandemic led to doubts that it would be possible to contain the virus in Germany by the initial measures that had been taken. “The situation in Italy also changes our assessment of the situation: Corona has arrived in Europe as a pandemic” German health minister Jens Spahn remarked on February 24th. Yet, the government was still reticent to introduce strict lockdown measures. It was recommended to cancel big public events of more than 1,000 participants, and it was also recommended to close schools and childcare if confirmed infections were established. At the same time, large public events like the carnival in Cologne took place as planned with several thousand attendees.
This changed very quickly in mid-March, when the number of daily cases increased within 2 weeks from less than 100 to 4,000 (see Figure 1) and as also the first COVID-19-related deaths were recorded. On March 12, schools and childcare facilities were closed and the government issued recommendations regarding social distancing. On March 17th, the borders were closed, and on March 18th, Chancellor Angela Merkel announced the general lockdown with stay-at-home orders. “This is serious,” she remarked in her speech to the nation “Please, take it seriously, too.” These measures went into effect on March 21st and were then further extended twice until the beginning of May. At the same time, the government reassured the population that they would do everything necessary to buffer the negative consequences of the lockdown. The debt brake was suspended, and the government announced an extra federal budget of 150 billion euros. Short-time work (“Kurzarbeit”) was introduced which allows firms to temporarily reduce hours worked while providing employees with income support from the state for the hours not worked. On April 22nd, the subsidy was increased to up to 80% of the regular salary. In mid-April, some states started to make the wearing of face coverings obligatory in public transportation and shops. By April 27th, face masks were obligatory in public transportation and shops in all German states.

Germany reached its peak of the first wave in terms of daily infections in early April when the 5-day moving average of new infections per day reached almost 6,000. Yet, the lockdown and stay-at-home orders which had gone into effect on March 21st seem to have been very effective since case numbers decreased quickly in the second half of April, and also, the increase in the number of deaths slowed down in the beginning of May when it has reached about 8,000 deaths.

The government (and the public) started to discuss re-opening plans at the end of March, and the first restrictions were lifted in May. As we are mainly interested in the public reactions to the lockdown, we restrict the following analysis to the time between March 20 (i.e. from when survey data is available) and May 14 when the first re-openings occurred (marked in gray in Figure 1).
In summary, having a high performing medical system but little past experience with pandemics, Germany tended to show a later, slower, and weaker policy response compared to some other countries (Capano, Howlett, Jarvis, Ramesh, & Goyal, 2020).

3 | DATA AND ANALYSIS

To capture public reactions of the German population, we use data from the German Internet Panel (GIP). The GIP is based on a random probability sample of the general population in Germany aged 16 to 75. The study started in 2012 and was supplemented with additional participants in 2014 and 2018. The panel participants were recruited offline using strict statistical procedures (Blom, Gathmann, & Krieger, 2015). Every other month, panel participants are invited to take part in a voluntary online survey. For the Mannheim Corona Study (MCS), the GIP launched a special survey on March 20th. The sample was divided into eight random subsamples. The subsamples 1–7 were assigned to a specific day of the week, while the eighth subsample serves as control group and is not surveyed. Within one week, the questionnaire remains exactly the same for all participants. Between 411 and 643 (on average 489) respondents take part in the study every day, allowing for the analysis of daily but also weekly changes in attitudes and behavior.

In our analysis, we use a response propensity weight, which projects the characteristics of the MSC participants to the general GIP study using data on employment status and occupational sector. Moreover, a raking weight was used to extrapolate the characteristics of MSC participants to those of the general population of Germany based on age, gender, marital status, level of education, household size, and federal state.

We use two survey questions as indicators for the “public support for” and “evaluation of” the lockdown policies. Respondents are asked whether they think that the societal benefits of the current policies outweigh their economic costs. Answer categories ranged from 1, the societal benefits are greater than the economic costs to 7, and the economic costs are greater than the societal benefits. We also provided respondents with a list of lockdown policies, and respondents should choose all the policy measures they think are appropriate to deal with the COVID-19 pandemic (see Appendix for the exact wording of questions).

To examine the economic consequences of the lockdown, we explore how the employment situation changes over time. We distinguish four different employment status (employed, short-time work, furloughed with and without pay, and unemployed) and also whether the employed work on-site or remotely.

Finally, we explore the psychological reactions of the public focusing on how threatened people feel by the COVID-19 pandemic, how they rate their individual infection risk and their ability to control an infection, and the perceived likelihood of severe illness if infected (see Appendix for the exact wording of questions and response scale).

Daily data on policies are available from January 1, 2020, and the survey data are available on a daily basis starting on March 20, 2020. As we are primarily interested in the lockdown policies and their effect on the public, we restrict our analysis to the period between March 20, 2020, to May 14, 2020. In mid-May, Germany began to gradually lift some of the lockdown measures and started to re-open the country.

4 | RESULTS

How did the public react to the lockdown measures? We first look at political reactions and distinguish between performance evaluations and support for specific policies. Figure 2 shows how the public...
evaluates the consequences of the lockdown policies. We reversed the scale in the questionnaire so that higher values on the 7-point scale mean that the population thinks that the societal benefits are greater than the economic costs. We see that at the beginning of our period of observation, at the peak of the first wave and briefly after strict lockdown measures had been introduced, that the public evaluates the policies quite positively and in general supports the evaluation that the societal benefits of the lockdown outweigh its economic costs. This evaluation remains stable at around 4.6 during the first two weeks but then begins to steadily decline already in early April and continues to drop week-on-week until the beginning of May. At the end of our period of observation, the evaluation dropped below 4 on the 7-point scale as around 50% of the population in Germany felt that the lockdown had more negative than positive consequences.

In Figure 3, we move from the general performance evaluation to support for specific lockdown measures. The graph shows which share of the population supported each of six different policies. We see that most of the policies receive tremendous support in the first weeks of the lockdown. More than 90% of the population supported closing public facilities (like schools and universities), closing borders, and prohibiting public gatherings with more than 100 participants. A lockdown and strict stay-at-home order also received majority support. The public was more critical toward closing public transportation and also toward tracking mobile phones of infected people without their consent, although notably about a third did support such a policy. Over time, with declining case numbers and higher awareness for the economic costs of the lockdown measures, support steadily declined for all policies. We observe the steepest decline in support for closing public facilities which fell from 95% support in week 1 to around 40% support at the beginning of May. The population in Germany became equally critical toward a stay-at-home order and slightly less than 10% of the population supported a stay-at-home order in May. Other measures lost support, including banning international travel (−25 percentage points) and prohibiting gatherings of more than 100 participants (−5 percentage points). Briefly before the first re-opening started, a majority still supported these two measures. Also, only very few people (around 5%) did not support any of the lockdown measures. Overall, during the lockdown, the public in Germany became most critical about those policies which had the strongest

**FIGURE 2** Evaluation of the lockdown policies
negative impact on their daily lives, such as the measures regarding the closures of public facilities and stay-at-home orders, whereas banning international travel or prohibiting larger public events were still supported by a majority. Although our empirical data only provide evidence on one very strict version of a tracking and tracing policy, the results suggest that the public sees a benefit in these kinds of measures as support did not decline very much over time.

In addition to the political consequences, the lockdown also had negative effects on the economy and the labor market in particular. Here, we focus on the workforce and explore who is affected most by the negative consequences of the lockdown. Does the COVID-19 crisis increase existing social inequalities? Our results suggest that it does. Figure 5 shows the employment situation depending on the level of school education, and we distinguish between low (without or with basic school-leaving qualifications—Hauptschulabschluss), middle (intermediate school-leaving qualification—Mittlere Reife), and high (with higher education entrance qualification (Fach-Hochschulreife) education) levels. We restrict our analysis to those respondents who were employed before the lockdown (i.e., in January 2020). Hence, our results show which groups were able to keep their jobs, who switched to remote work, but who lost their job, were furloughed or were sent on short-time work.

Overall, our results show that the lower the level of education, the higher the proportion of people who changed to short-time work, to furlough without pay, or who were laid off (Figure 4). Job loss for someone with a low or middle education is twice as likely as for someone with a high level of education. Among those who kept their jobs and were able to work about the same hours as in January 2020, employees with a high level of school education are more often working remotely (more than 40 percent in March and April) than employees with a lower level of education. The majority of those with a low or medium school education work on-site (between 62 – 64 percent in March). In summary, high education reduces the risk of job loss and at the same time provides the privilege to work remotely. The negative consequences of the COVID-19 lockdown hence increase existing social inequalities along two dimensions. The lower educated lost their jobs, were suspended without pay, or experienced a partial income loss by short-time work to a much higher degree than higher educated
workers. What’s more, if they were able to keep their jobs, they tended have to work on-site, facing higher risks of infection.

These social inequalities are linked to political attitudes and policy evaluations. Additional analyses (not shown here) confirm that the lower educated are much more critical of the lockdown policies and rather tend to say that the economic costs are higher than the societal benefits.

**FIGURE 4** Employment situation of the workforce in Germany—for different educational levels

**FIGURE 5** Feelings of threat, risk perceptions, and control
To better understand public reactions to the lockdown in Germany, we argue that it is crucial to look more specifically at public perceptions. In Figure 5, we show how threatened the public felt by the COVID-19 pandemic and how the population rated its own infection risk (both on the left y-scale). Moreover, we explore whether people thought that they were at risk of a severe illness if infected and whether they felt in control of their own infection risk.

In the first two weeks, shortly after the lockdown had been introduced but before the peak of the first wave of infections, threat perceptions were highest and the population rated the degree they felt personally threatened above 5 on the 11-point scale ranging from 0 (indicating no perceived threat at all) to 10 (indicating an extreme perceived threat to me). Also, the population thinks that almost 15 out of 100 people will get infected in the next 7 days. This is a very major overestimation of the actual infection risk. Both the threat perception and the individual infection risk then steadily decreased over time. In contrast, the subjective risk assessment of having a severe illness in case of infection and also the feeling of having control over an infection remains more stable over time. In summary, the steady decrease of feelings of threat and perceived risk might be one explanation for why the lockdown slowly lost public support over time. Additional analyses show that such a correlation also exists at the individual level, as the more someone felt threatened, the higher degree of support they indicated for lockdown policies and the more positive was their overall evaluation of the benefits of the lockdown.

5 | CONCLUSION AND DISCUSSION

In this paper, we have summarized the political response to the COVID-19 pandemic in Germany and focused on the period between the occurrence of the first case in January to the end of the lockdown in mid-May 2020. Our analysis shows that Germany followed a containment strategy for the first 2 months until mid-March, focusing on isolation of the infected and on contact tracing but refraining from stricter policy measures which would affect the daily life of those not infected. This changed very quickly during the first two weeks of March when the daily new cases increased from below 100 to around 1,000. In response, Germany very quickly moved from a containment strategy to a strategy focused on delaying the spread of the virus and within 3 weeks moved from prohibiting large events with more than 1,000 participants to a lockdown with a national stay-at-home order. Our analysis of survey data starting at the peak of the first wave briefly after the lockdown was introduced shows very high approval rates of these policy measures which might explain their success in effectively delaying the spread and reducing new infections to below 1,000 per day by mid-May. Also, Germany managed to keep the number of deaths at a very low level throughout the crisis (see contributions by Malandrino (2020) on Italy and by Colfer (2020), covering the UK, in this issue).

Yet, our analysis also shows that the widespread support for the containment and delay policy measures steadily decreased over time as did feelings of threat and subjective risk perceptions. Moreover, the negative economic consequences of becoming unemployed or of moving to short-time work did not affect everyone equally but did track existing social inequalities. While economic and social policies provided support to buffer these negative consequences in the short run, it is unclear whether the policies will also be able to adequately address medium- and long-term consequences of the lockdown. Hence, the conclusions and policy implications drawn from our analysis are clearly limited to these short-term effects and are clearly hampered by the fact that we are trying to explore an ongoing phenomenon. The external validity of our findings for other countries and institutional settings is of course also hampered by the specificities of the German case. Germany has a strong economy and labor market, a comparably well-functioning welfare state, and a stable government that has been in
office for several years. This might explain both the success but also the high approval of the lockdown policies in the country (Breznau, 2020).

In summary, our analysis clearly shows that the lockdown policies feed back into the political process by altering political attitudes and public risk perceptions (Pierson, 1993; Skocpol, 1992). This raises some doubts that the acceptance of policies and the willingness of citizens to comply with lockdown measures during a potential second wave would be as widespread and as strong as they were during the first wave of the pandemic. Information campaigns, a societal discussion reflecting on the experiences of the lockdown, but also social policies that address some of the social inequalities the pandemic has exposed (see for example Lynch, 2020) might help to prepare the population for subsequent waves and for subsequent pandemics.

ACKNOWLEDGMENTS

This paper uses data from the German Internet Panel (GIP) and the Mannheim Corona Study (MCS). The GIP and the MCS infrastructure are funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) through the Collaborative Research Center (SFB) 884 “Political Economy of Reforms” (SFB 884; Project-ID:139943784). The MCS is funded by the German Federal Ministry for Work and Social Affairs (BMAS; Project-ID: FIS.00.00185.20). Open access funding enabled and organized by Projekt DEAL.

ORCID

Elias Naumann https://orcid.org/0000-0003-1415-0678
Roni Lehrer https://orcid.org/0000-0002-9202-9278

REFERENCES


### APPENDIX

<table>
<thead>
<tr>
<th>Concept</th>
<th>Question text (English translation)</th>
</tr>
</thead>
</table>
| Policy evaluation| What do you think about the consequences of the current confinement policies in Germany: are the economic costs greater than the societal benefits, or are the societal benefits greater than the economic costs?  
1—The societal benefits are greater than the economic costs.  
…  
7—The economic costs are greater than the societal benefits. |
| Policy support   | Which of the following policy measures do you think are appropriate for dealing with the current situation? Please tick all that apply.  
- Closing public facilities (e.g., universities, schools, and nursery schools)  
- Closing boarders  
- Prohibit events and public gatherings with more than 100 participants  
- General stay-at-home order  
- Closing of public transportation  
- Tracking of mobile phones of infected persons for contact tracing (without consent)  
- I do not support any of these measures. |
<table>
<thead>
<tr>
<th>Concept</th>
<th>Question text (English translation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat</td>
<td>To what degree do you feel personally threatened by the coronavirus pandemic? no threat at all to me … 10 extreme threat to me</td>
</tr>
<tr>
<td>Risk</td>
<td>We would like to know how likely you think it is that you or someone like you will be infected with COVID in the next 7 days. Please think of 100 persons who are very similar to you, that is, they have a similar age, a similar health, live in your neighborhood, have a similar occupation and a similar lifestyle. What do you think, how many of these 100 persons will be infected with COVID in the next 7 days?</td>
</tr>
<tr>
<td>Consequences</td>
<td>If you would get the coronavirus, how likely would it be that your illness would be so severe that you have to be treated in hospital? 1 not at all … 7 in any case</td>
</tr>
<tr>
<td>Control</td>
<td>What do you think to what extent you can affect the likelihood to be infected with the Corona virus in the next 7 days? 1 Not at all … 7 entirely</td>
</tr>
</tbody>
</table>