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Marching in line through the crisis or setting one's own course in fighting the Covid-19 pandemic? A comparison of six policies, 16 states and two shutdowns in the German federation[I]

by

Iris Reus and Julia Nelles[II]

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Abstract

When combating the pandemic, federations face the additional challenge that the responsibilities for political actions do not reside in one hand but are divided between several governments. Therefore, during the Covid-19 pandemic all federations showed efforts to coordinate their reactions. In Germany, the 'Länder' (states) decided on agreements concerning containment measures during regular conferences. These agreements led to uniform regulations in some periods and policies, but still left room for the states' own (and potentially different) strategies and decisions in others. Thus, from the perspective of federalism research, the question arises as to how much diversity can finally be found in the regulations at the subnational level. We examine this question using the periods of facility closures in six policies (restaurants, bars, dance clubs, cinemas, gyms, and gambling halls) covering all 16 states and both shutdowns during 2020-2021. The results show substantial variance between states (across policies) and between policies (across states).

Keywords

Federalism, Policy-Making, Covid-19 Pandemic, Shutdown, Lockdown

1. Introduction

How governments respond to the Covid-19 pandemic has generated a wealth of political science literature. The majority of this refers to certain countries or comparisons at the nation-state level (Toshkov et al. 2022). In the field of policy analysis, many studies either focus on a specific policy (e.g., Klatt & Böhret 2021 on Woman's Rights in Childbirth, Béstate et al. 2021 on Social Policy) or, in the case of broader case studies, remain superficial or present only anecdotal evidence. From the beginning, the literature has also addressed the question of how the specific conditions of federations – where, in contrast to unitary states, responsibilities are shared between political levels – affect policymaking when fighting pandemics (e.g., Büthe et al. 2020, Easton et al. 2020, Kettl 2020, Kuhn & Morlino 2021, Erkoreka & Hernando-Perez 2021, Murphy & Arban 2021). In Germany, the debate about the performance of the federal state, i.e., whether federalism leads to a more or less successful pandemic response than centralized states, was present not only in literature (e.g., Kropp 2020, Montag 2020) but also in the public and the media (Reus 2021).

Within the area of federalism research, several edited volumes, and special issues (e.g., Steytler 2021, Chattopadhyay et al. 2022, Publius Vol. 51/Issue 4 2021) have been published in the meantime, providing studies on different federations and their response to the crisis. However, this literature predominantly focuses on intergovernmental processes of coordination, exploring different federations and contexts (Schnabel & Hegele 2021, Vampa 2021, Broadhurst & Gray 2022, Jüptner & Klimovsky 2021, Kuhlmann & Franzke 2022, Navarro Velasco 2022). Often, the titles already state that "complex intergovernmental problems" (Pacquet & Schertzer 2020), "intra-state tensions" (Federman & Curley 2022), or even "intergovernmental conflict" (Lecours et al. 2021) are expected in the face of pandemic-driven challenges, in particular for federations with shared responsibilities between the different levels of government.

In contrast to the focus mentioned above, the comparative analysis of different policies, i.e., different measures related to different areas to contain the Covid-19 pandemic, at the subnational level is still a research gap. This is partly because data on this issue usually has to be collected by the researchers themselves, which is costly given the corresponding number of subnational entities. Unfortunately, the best-known dataset, the

"Oxford Covid-19 Government Response Tracker"[III] provides data at the subnational or local level for Brazil, Canada, the United Kingdom, and the USA only. The "CoronaNet Research Project"[IV] provides data at the subnational level for Germany also, but the policy categories used are relatively broad. The policies we examine are merged into a common category so that a comparison of individual policies is impossible. Consequently, the variance in the individual policies and differences are not visible. To fill this research gap, we conduct a separate analysis of facility closures in the six policies 'restaurants', 'bars and pubs', 'dance clubs', 'cinemas', 'gyms' and 'gambling halls', covering all 16 German states ('Länder') and the two shutdowns of spring 2020 and winter/spring 2020/21.

Given the extensive coordination efforts taking place in the German federation during the pandemic, our research interest is: *To what extent can subnational diversity of regulations be observed and which patterns do appear comparing states (across policies) and policies (across states)?* We create a new dataset for the time between March 2020 and September 2021, including 55,548 data points. In both periods (related to the two shutdowns), we find substantial variance in that several days, weeks, or even months lay between the times of facility reopening in the different policies and in the different states. Almost all states abided by the joint agreements for closure (i.e., results of coordination) in almost all policies. Differences were limited to the times in which the states decided independently. Except for Schleswig-Holstein – which opened earlier – and Bavaria – which opted for longer closure times –, no clear state-related patterns emerged across all six policies and the two periods. The differences between the states within the same policies and the different opening orders of the six policies show that the states each their own course in fighting the pandemic.

The article proceeds as follows: Chapter 2 outlines contextual information on policy making in the German federation during the pandemic and summarizes thematical findings of the literature. Chapter 3 then discusses the dataset and method. The results of the empirical analysis are presented in Chapter 4, followed by the conclusion in Chapter 5.

2. Policymaking in the German Federation During the Pandemic

In the Federal Republic of Germany, the dominance of legislation in 'regular times' is at the federal level, while the states are primarily responsible for implementing the laws (Rudzio 2019: 261f.). The responsibility for implementation comprises both the own state laws and the federal laws. Partly, the states participate in legislation at the federal level by the second chamber of parliament, the 'Bundesrat'.[V] Yet, administrative implementation of federal laws means less scope for differences at the subnational level compared to legal responsibilities leading to own – and potentially different – state laws.

Division of responsibilities during the pandemic

The central constitutional basis for the division of competences in times of pandemics is Article 74 (1) No. 19 Basic Law on "Measures against Publicly Dangerous or Communicable Diseases in Humans and Animals". According to this so-called 'concurrent legislative competence' the states are only allowed to legislate if and to the extent that the federal government has not exercised its legislative competence by passing a law. Although the Federal Infection Control Act contained comprehensive regulations in favor of the federal government, it also granted power to the states to issue decrees so that regulations remain possible at the state level (Mers 2019: 23f.). Additionally, concerning the pandemic, the responsibility for disaster control is relevant, which lies primarily with the states – except in the case of war-related hazards, for which the federal government is responsible (Art. 73 No. 1 GG) (Lemke 2020: 3). Thus, during the crisis, the states dominated first (Thiele 2012: 78f.). While the federal law regulated basic aspects of possible protective measures, the states determined independently whether, when, and to what degree these are introduced. The situation changed in times of the so-called 'Federal Emergency Brake' (see below) but generally there was a lot of scope for the states.

Overview of pandemic development and containment reactions

The first pandemic containment measures in Germany were imposed in February 2020, at that time still at the local level due to limited outbreaks (for the following see Färber 2021: 52-56). As can be seen in Figure 1, the number of people infected with the Covid-19 virus rose sharply from the beginning of March. After single states had already passed

policy measures to restrict social contact, more extensive measures were agreed upon on March 12. On March 22, the German chancellor and the heads of state governments agreed to a comprehensive lockdown of almost all areas of public life. All businesses (except basic services) had to close, as did schools, universities, restaurants, theatres, opera houses, sports venues, and the like. On March 25, 2020, the federal parliament declared an "epidemiological situation of national significance" and imposed a nationwide lockdown two days later. Since the measures provided for require the approval of the Bundesrat by constitutional law, the states were directly involved in the decision-making process. As of the end of May 2020, the number of new infections had declined sharply, and so the restrictions were gradually eased or lifted. In early October 2020, the numbers increased exponentially within a short time, leading to the second shutdown starting on November 2, 2020. The colored bars in Figure 1 – which represent the policies analyzed in this study – mark the two shutdowns (periods of closure) the states agreed on.

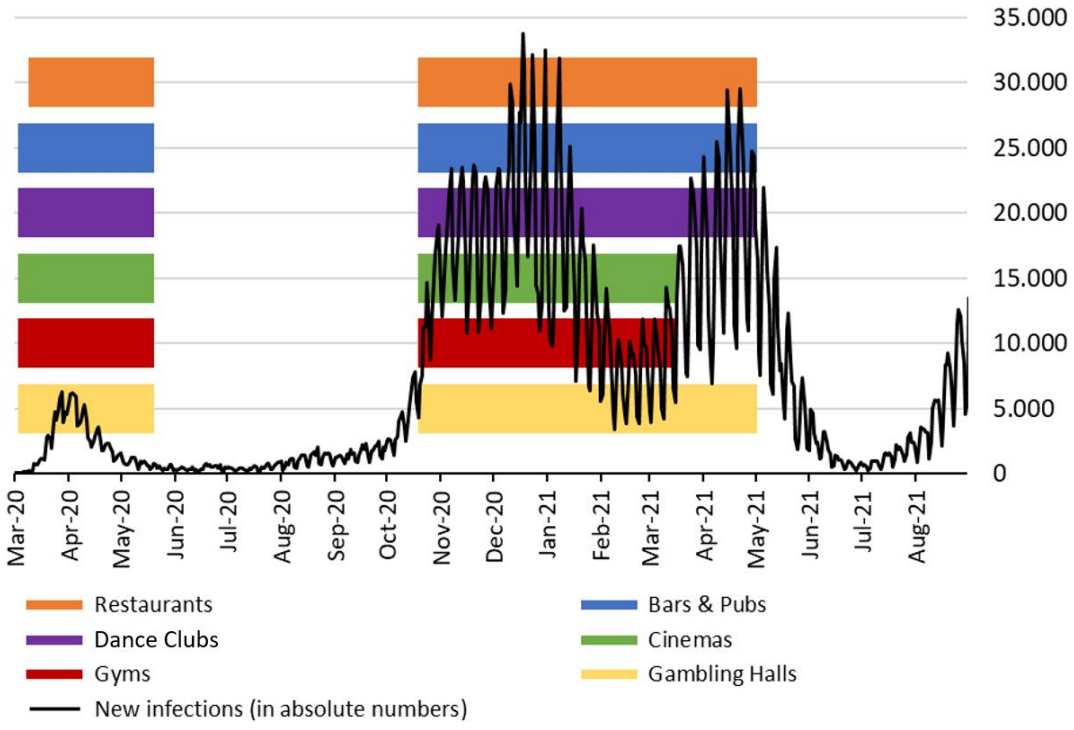

Figure 1: Rate of new infections (black curve) and closure periods by agreement of the 16 states for the six policies analyzed (colored bars)
Source: Own compilation

Coordination and joint agreements

The German federation can be classified as 'cooperative federalism' (Kropp 2010: 10) which generates a higher degree of entanglement due to the division of tasks between the federal and state level (see above, ibid.: 9). Already in the 1960s, coordination took place at and between all levels of government to such an extent that Hesse (1962) called Germany a "unitary federal state". During the pandemic, one of these (coordination) committees, the so-called "Ministerpräsidentenkonferenz" (MPK, translates into Conference of Prime Ministers) gained special relevance. At these conferences, the prime ministers as representatives of the 16 states meet at least four times a year, discussing and coordinating political reactions on current issues. In times of Covid-19, this conference format developed into more regular meetings, taking place at least once a month, with the chancellor joining upon invitation. The aim was to coordinate policy measures to contain the pandemic, which the states implemented later for their territories by passing their own decrees (Schnabel & Hegele 2021: 552). The conferences were mostly held online or via phone only, since larger face-to-face meetings were prohibited by decree nationwide due to the infection risk personal contacts posed. After these meetings, the joint agreements were presented as the output of the coordination process in press conferences and made publicly available. Agreements such as these reached at the MPK are not legally binding but usually have a high political binding effect. From March 2020 to September 2021, there were 28 conferences in total, leading to agreements on several policy aspects. The agreements relevant to our analysis are listed in Table 1 and visualized in Figure 1 (colored bars).

In the face of persistently high infection rates, the federal government passed the Infection Protection Act (so-called "Federal Emergency Brake"), which came into force on April 23, 2021. Accordingly, all facilities in the six policies in our analysis were required to close if the seven-day incidence exceeded 100 new infections per 100,000 persons for three consecutive days. Conversely, states were allowed to adopt their own regulations for the six policies if incidences were below 100. After being expanded by an opening clause for vaccinated, recovered, or tested persons as of July 7, 2021, the Infection Protection Act expired at the end of June 2021. From that point on, no restrictions – neither through joint agreements nor federal law – applied to the states.

		Restaurants	Bars and Pubs	Dance Clubs	Cinemas	Gyms	Gambling Halls
Period 1	03-17-2020 – 03-22-2020	–	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure
	03-23-2020 – 05-06-2020	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure
	05-07-2020 – 11-01-2020	–	–	–	–	–	–
Period 2	11-02-2020 – 03-04-2021	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure	Agreement for closure
	03-05-2021 – 04-22-2021	Agreement for closure	Agreement for closure	Agreement for closure	–	–	Agreement for closure
	04-23-2021 – 05-06-2021	Federal Infection Protection Act requires states to close all facilities in the respective policies if 7-day incidence exceeds 100 per 100,000 persons for 3 consecutive days (and vice versa, if the incidence is below 100, the states may decide for themselves)					
	05-07-2021 – 06-30-2021	Federal Infection Protection Act remains in force, yet with new opening clauses for the states: facilities in the respective policies can open even if the 7-day incidence exceeds 100 per 100,000 persons for 3 consecutive days as long as only vaccinated, recovered or tested persons enter the facility.					
	07-01-2021 – 09-30-2021	–	–	–	–	–	–

Table 1: Agreements on Covid-19 containment measures related to the six policies analyzed
Source: Own compilation
Note: The conferences relevant to this analysis were held on 03-16-2020, 03-22-2020, 04-15-2020, 04-30-2020, 05-06-2020, 10-28-2020, 11-25-2020, 12-02-2020, 12-13-2020, 01-05-2021, 01-19-2021, 02-10-2021, 03-03-2021, 03-22-2021 and 08-10-2021. Full text proof is available upon request.

Diversity in the German federation – findings from literature

Although being a federal state is part of the unalterable core of the German constitution (Article 20 (1) of the Basic Law, Article 79 (3) of the Basic Law), the associated notion of federal diversity has been overlaid for decades by the guiding idea of the 'equivalent living conditions.' As surveys have shown several times, the unitary orientation of the population is strong, with the vast majority favoring nationwide uniform policies (Petersen 2019: 122f., Scharpf 2008: 510). This orientation is reinforced by the media, which regularly report on policymaking in the states in a comparative way, mention 'outlier' and criticize a 'regulatory jungle' due to different regulations in the 16 states (Reus 2016: 9f.). The Federalism Reform of 2006 aimed at disentangling the legislative competences of the federal and the subnational level and transferred several new competences to the states. As shown by Reus and Vogel (2018) the reform led to a considerable degree of diversity in many of the new policies. However, it does not mark a turning point in terms of a change of the unitary orientation of the public.

During the pandemic, due to the broad policy responsibility of the states leading to potentially different regulations in the 16 states, the conflict over the unitary orientation of the citizens came to force even more. Managing the crisis caused by the Covid-19 pandemic therefore also turned into a "test of federalism" (Ensminger 2020). The image of federalism conveyed by the media in this test was – according to first commentaries – as negative as had been expected. Kropp (2020: 1) states that federalism "once again found itself in the crosshairs of already critical reporting", and Münch (2020: 209) notes that "hardly any journalist or presenter (...) got along without the words 'patchwork' and 'pressing ahead'." A comprehensive study by Reus (2021) of over 400 statements related to federalism and Covid-19 in articles from daily newspapers between March and September 2020 confirms these first evaluations and demonstrates the critical attitude of the media towards federalism. Particularly, the citizens' uniform orientation showed up in many letters to the editor. Concerning citizens' attitudes, Juhl et al. (2022) analyze which factors influence support of additional discretionary powers for the federal government, i.e., centralization, using daily panel data from the Mannheim Corona Study collected during the first wave of the pandemic. The analysis indicates that more heterogeneous regulations at the state level as well as the perception of a higher personal threat by Covid-19 lead to more support.

Based on these findings, we expect strong pressure on politicians towards uniformity at the state level. Thus, a process of harmonization should take place, not only during times of joint agreements (made by the MPK) but also around them, i.e., in times in which the states were not 'bound' by agreements. On the other hand, in dynamically changing situations with regionally differing developments – like the development of infection rates during the pandemic – federalism offers advantages, such as faster action or more tailored measures (Montag 2020, Congleton 2021). As voters might reward successful politicians and punish failures at the next election poll, the different conditions and developments could, nevertheless, promote diversity of regulations in the 16 states. Considering all arguments, we expect a moderate degree of diversity in the six policies analyzed.

3. Data and Method

Latin For the analysis, six policies were selected and for each of them, and the 16 states, recorded whether facilities were allowed to open or had to remain closed (shutdown). The investigation period spans from March 1, 2020, to September 30, 2021. Each day was separately coded for each state in each policy. This resulted in a total dataset of 55,584 data points (579 days x 6 policies x 16 states).

Investigation period

The beginning of the investigation period is March 2020 when more and more local outbreaks occurred, and the total number of infections rose sharply. The end of the investigation period is marked by the last day on which facilities in one of the states and one of the policies had to remain closed. Subsequently, the entire investigation was divided into two periods corresponding to the two shutdowns in spring 2020 and winter/spring 2020/2021. The end of the first period (covering the first shutdown) is determined by the start of the second shutdown on November 2, 2020. This results in a first investigation period spanning from March 1, 2020, to November 1, 2020, and a second period from November 2, 2020, to September 30, 2021. In the last step, we separately calculated how long facilities in the 16 states and six policies had to remain closed for both periods (duration, number of closure days) and at which times the closure or opening was decreed (beginning and end of the closure period).

Selection of policies

The policies selected are 'restaurants', 'bars and pubs', 'dance clubs', 'cinemas', 'gyms', and 'gambling halls'. This decision was made for several reasons: First, we are aiming at facilities in policies that are accessible to as many groups of adults as possible at any time and that are visited voluntarily. Thus, for example, medical areas such as physiotherapy, which are visited on the instructions of the doctor, are not eligible, because here the criterion of accessibility for all at any time is missing. This also excludes any kind of associations and similarly events that are only accessible to members. Second, concerning infections, this means that policies were selected for facilities where people from many different households gather and mingle so that there is a higher risk of spreading the virus.

Basic service facilities, such as grocery stores, were also excluded. The reason is that there is no voluntary consumption decision (as no one can survive without food for longer periods) and all democratic countries allowed them to stay open leading to only little variance between government regulations. The selection includes only private sector facilities and excludes state entities such as theatres, museums, or libraries. In doing so, not only the personal but also the economic dimension is represented, as government restrictions affect citizens not only as users or customers but as owners or operators, too. All facilities selected are enclosed spaces since the recognized epidemiological perspective is that the risk of infection is much lower outdoors (e.g., in adventure parks or zoos). Finally, facilities in these six policies are present in each state in a similar way and thus are suitable for a comparative design.

Coding scheme

Each day of the investigation period in the dataset was coded dichotomously as we are interested in state regulations in terms of "opening versus closing" (of facilities in a policy). The value '0' represents 'open', meaning facilities are allowed to open for customers. The value '1' stands for 'closed', i.e., the regulations in the respective state stipulate that the facilities in the corresponding policy area must be closed to the public on this day. The opening is always subject to compliance with the applicable hygiene regulations. Other conditions – gradations of opening, so to speak – are not included. Thus, a facility is considered open as soon as it is allowed to receive customers inside, even if the number of people (e.g., 60 percent of full capacity), the number of tables (spacing regulations), or even the opening hours (e.g., extended curfew) have been limited. As stated above, at the beginning of April 2021, the Federal Infection Protection Act came into force which set binding regulations for the states in case the rate of infection exceeded the mark of 100 new infections per 100,000 persons at the county level. Below this mark, the states were entitled to pass their own regulations leading to further incidence thresholds in certain states. As we code binarily (0 = open / 1 = closed) and do not include any additional tiered conditions, we do also not consider these thresholds.

Documents used for coding

State regulations are taken from each state's Covid-19 decrees, which total over 1,000 for all states in the entire investigation period. Since these are not available in a central location (in some cases not even in the single state), all relevant decrees had to be researched first. Then, the decrees were searched for references to the six policies. This included both the terms used in this analysis and several synonyms (e.g., discotheques instead of dance clubs). However, these search terms are not necessarily expedient for each regulation since many decrees (so-called amending decrees) only refer to planned modifications of regulations and do not mention the text of the respective regulation in full. For example, such an amending decree might state that a certain half-sentence is inserted in Paragraph 13 in Number 7, or even that some words are deleted – without reciting Paragraph 13 Number 7. In this case, it is necessary to look into earlier decrees to check which policies the paragraphs and numbers refer to and how the content of the previous decree is changed by the amending decrees. For a comprehensive coding documentation, not only the source reference (name and date of the decree) but also the specific text passage was noted for each policy regulation. An overview of all 55,584 codes as well as the textual evidence can be provided upon request.

4. Empirical Analysis

The following empirical analysis presents the patterns concerning government-ordered facility closures that emerged across the 16 states in the six policies examined. Starting with the policies, we are first looking for the overall degree of variance before continuing with state-related patterns within and across policies. The chapter is divided into three sections, with the first examining facility closures during the period of Shutdown 1 (2020) and the second examining those during the period of Shutdown 2 (2020/2021). For ease of comparison, the same aspects are examined in the same order for both shutdowns. The third section presents the comparison of periods, i.e., to what extent the shutdown in connection with the first wave led to different patterns than the shutdown in connection with the second wave.

4.1 Shutdown 1 (2020)

After Covid-19 had already developed into an epidemic in China in January 2020, the WHO officially declared the previous epidemic a global pandemic on March 11, 2020. In Germany, the federal and state governments agreed on a far-reaching shutdown. From March 17, 2020, all facilities in five of the policies examined were to close and finally, from March 23, 2020, on, also facilities in the sixth policy 'restaurants' had to be closed. This agreement was extended several times until May 7, 2020. Throughout the rest of the first investigation period, i.e., before March 17, 2020, and from May 7, 2020 (until the end of the first period on November 1, 2020), there were no joint agreements and the states decided independently on facility closures.

4.1.1 Policies Compared

This section looks at the states' regulations from the perspective of the policy as a whole, i.e., it addresses policy-specific patterns comparing the six policies.

Shutdown 1 | Policies: Duration of the closures

The duration of the closure, i.e., the number of days on which facilities in the 16 states had to be closed in each policy, is shown in Figure 2. The scale is different for presentation purposes which is why a visual comparison of the height of the columns would not be conclusive. Looking at the numbers above the columns (indicating the number of closure days), we first see large differences in terms of the range between the lowest and the highest value in the respective policy area. For bars and pubs, the largest spread amounts to 117 days' difference between the shortest closure time of 51 days and the longest closure time of 168 days. Cinemas follow by a large margin with a span of 56 days, followed by gambling halls with 43 days, gyms with 32 days, restaurants with 22 days, and dance clubs with 10 days. In line with the small span, the most even spread is found in dance clubs. An obvious outlier is found for bars and pubs with a closure time of 168 days, i.e., they were closed 78 days longer than in the following state with a value of 90 days. A moderate outlier is also the state with the longest closure time of 70 days compared to the next state with 60 days, given the overall rather small spread for restaurants. In the other policies – cinemas, gyms, and gambling halls – the states' values are relatively evenly distributed within the range.

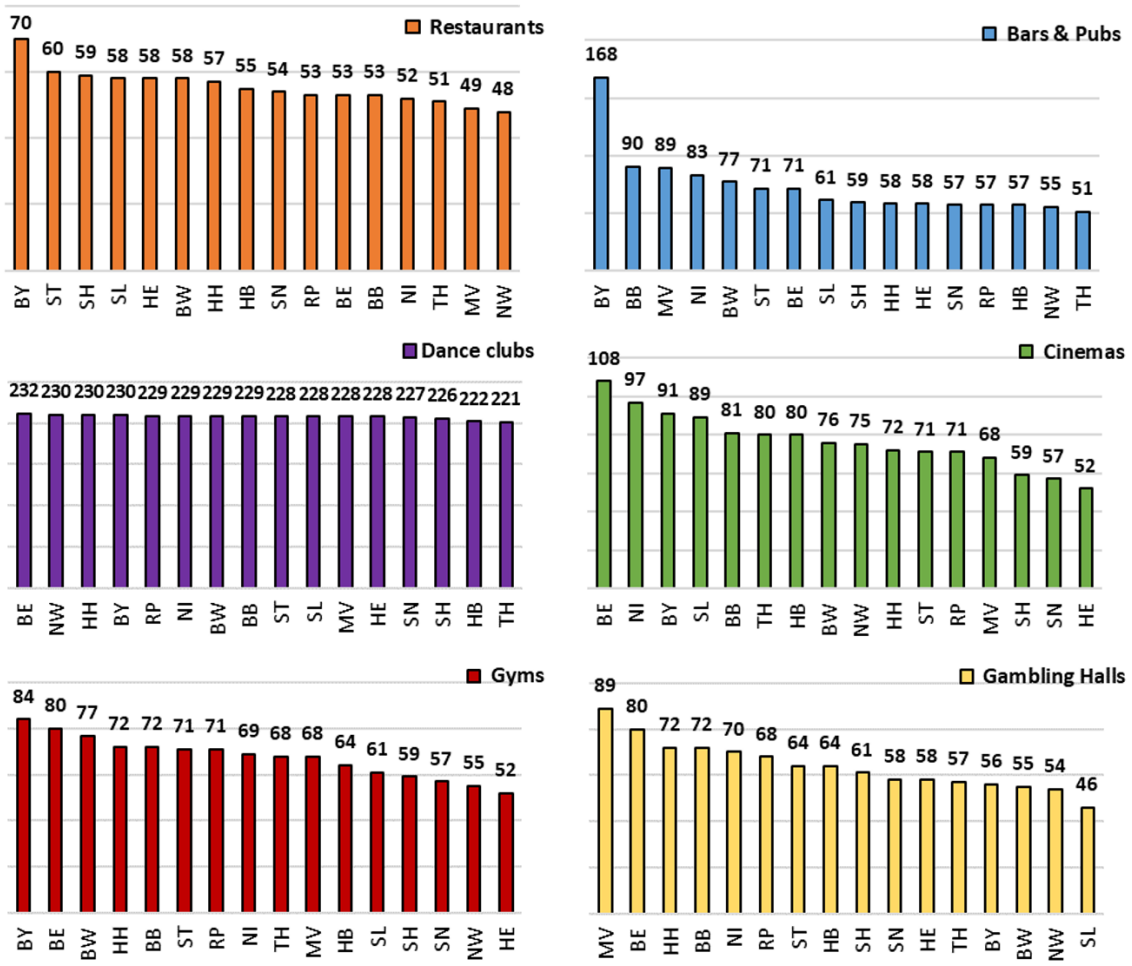

Figure 2: Shutdown 1 – Number of closure days per state differentiated by policies
Source: Own compilation

Shutdown 1 | Policies: Start and end times of the closures

In addition to the duration of the shutdown (number of days), it is of interest how the closures in the six policies are distributed on the time axis, i.e., if they started earlier or ended later. The initial phase – or in other words, the path into the shutdown – is represented by the left graphs in Figure 3, whereas the graphs on the right show the final phase of the shutdown before the openings. For presentation purposes, the time axes of the right graphs differ so that the variance between the states could still be seen.

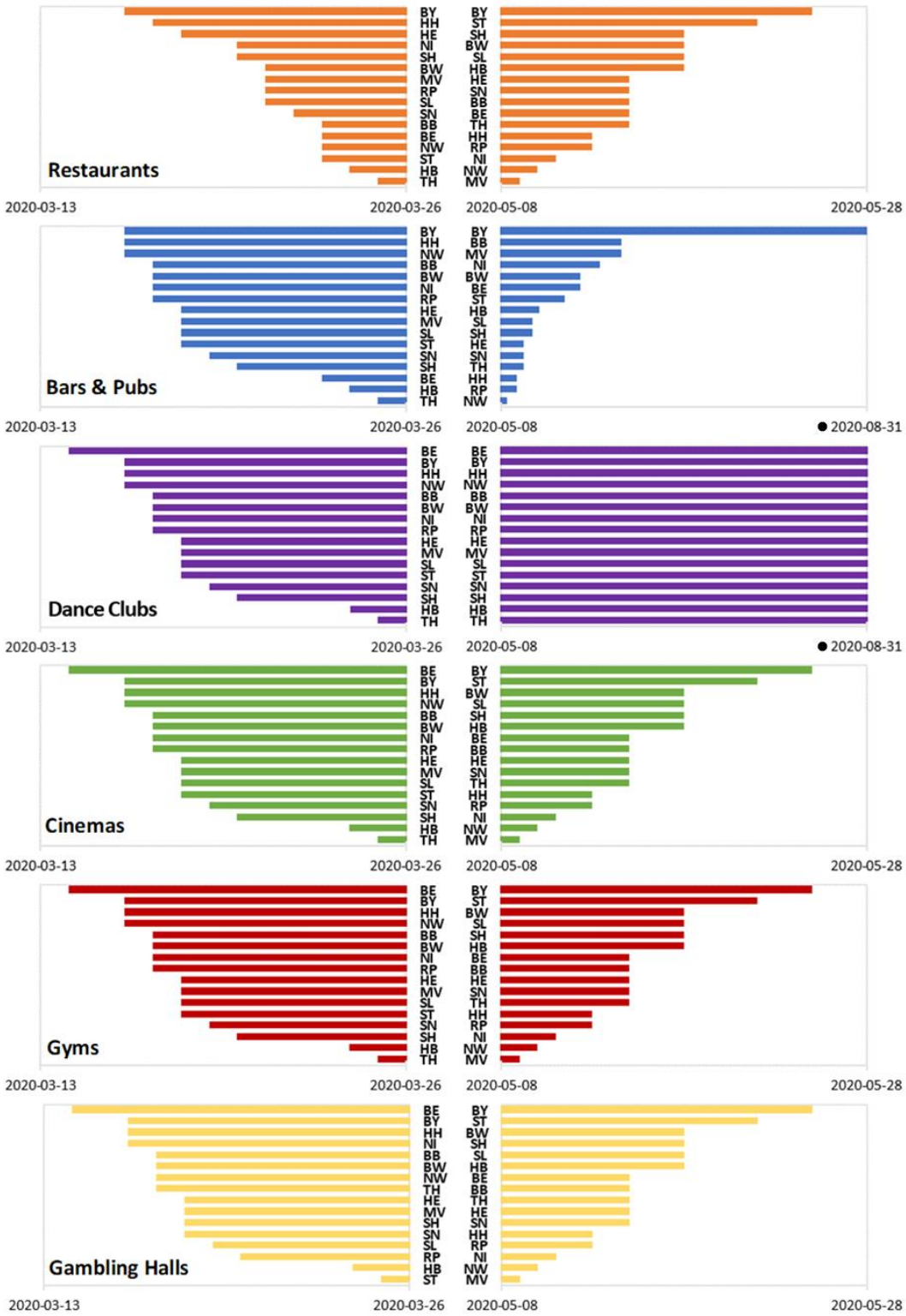

Figure 3: Shutdown 1 – Starting (left) and ending (right) points of the closures
Source: Own compilation
Note: The general time frame ends on May 28, 2020. Due to presentation purposes the end date of the X-axis is set differently for two policies with longer time frames, indicated by a black dot.

Dance clubs had not reopened by the end of the first investigation period (November 1, 2020) in all states. Furthermore, we register an extreme outlier for bars and pubs. The path to shutdown followed a similar pattern for four policies – dance clubs, cinemas, gyms, and gambling halls. A clear early mover is followed soon by closures in almost all the other states and finally, with a longer gap, by two stragglers. In the case of bars and pubs, there is no such early mover and three stragglers, which stand out from the other states due to later closures. In the case of restaurants, neither early movers nor stragglers can be identified, but the dates of closure in the states are distributed relatively evenly over the period. At the end of the shutdown, similar patterns also emerge in four policies (restaurants, cinemas, gyms, and gambling halls), with the majority of states opening at short intervals first, followed by another group of four states trailing behind, and two stragglers by a clear margin. In the case of bars and pubs, 15 states open at shorter, regular intervals one after the other, while the 16th state had a closure of 168 days – more than twice as long as the average for the other states (66 days).

4.1.2 States Compared

In this section, we change the perspective from policy-related to state-related patterns. We examine whether there are differences between the states in such a way that certain states regulate more restrictively across all policies than others.

Shutdown 1 | States: Duration of the closures

Figure 4 shows the closure time for each of the 16 states concerning the six policies considered. The first finding is that in all states the number of days is by far the highest for dance clubs since these were not reopened in any of the states after the end of the first shutdown till the end of the first investigation period. Moreover, no state-related pattern can be identified concerning the order of the other policies, i.e., the states closed or opened facilities in all policies except of dance clubs in a different order (facilities in no policy were closed the longest or shortest in all or most states). Larger differences between the closure times of the policies within a state are found in Bavaria with bars and pubs as an extreme outlier, Berlin, and North Rhine-Westphalia with cinemas as an outlier and Saarland with gambling halls as an outlier. A range of only two to six days between the closure times of

the various policies (except for dance clubs) is found in Hesse, Saxony, and Schleswig-Holstein, which also reopened these facilities after a rather short time compared to the other states.

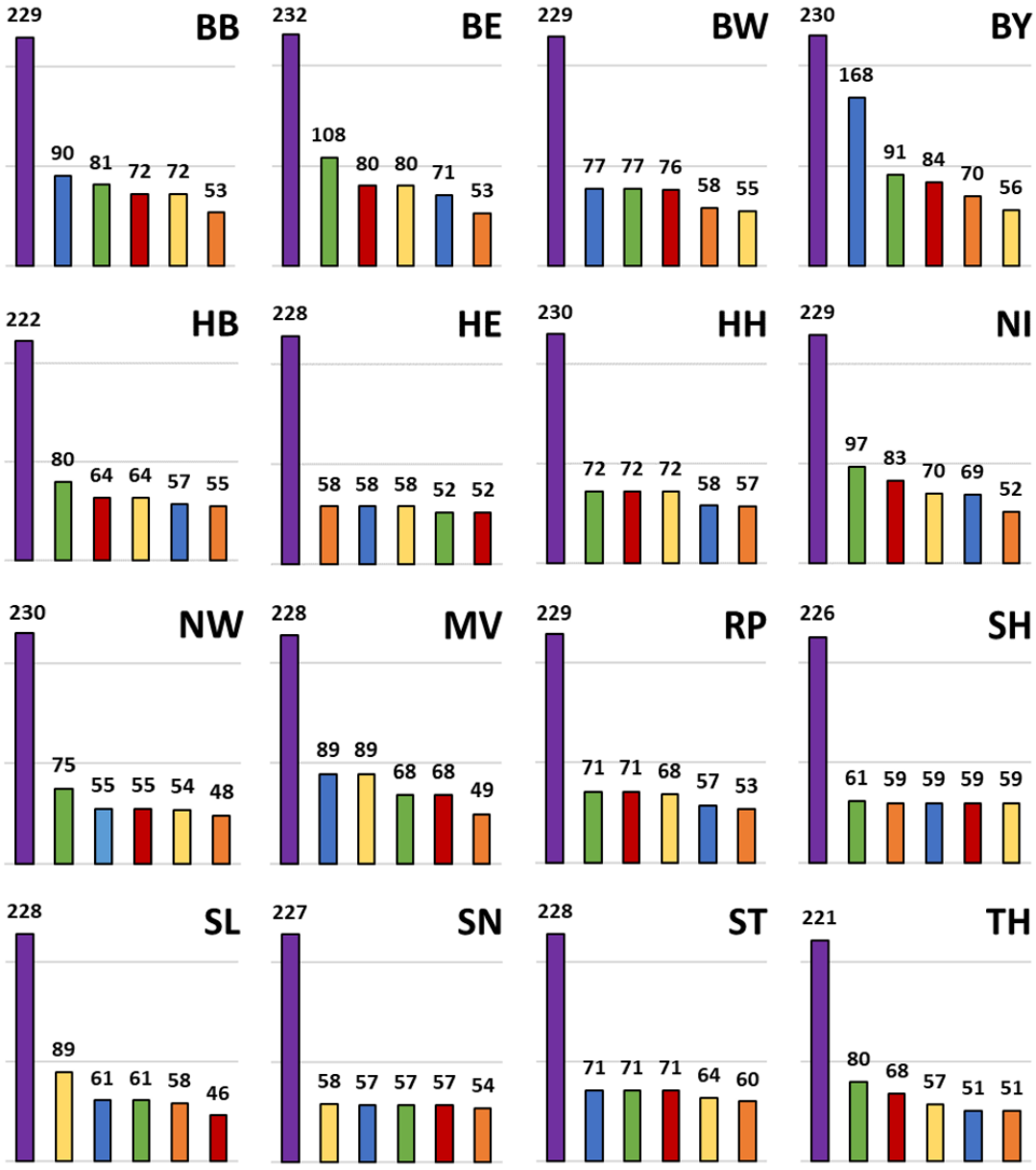

Figure 4: Shutdown 1 – Length of closure differentiated by policies and sorted by number of days for each state
Source: Own compilation
Note: The policies are restaurants (orange), bars and pubs (blue), dance clubs (purple), cinemas (green), gyms (red) and gambling halls (yellow).

Shutdown 1 | States: Start and end dates of the closures

Following up on the duration of the closure, Figure 5 shows a state comparison of the start and end times of the closures in the six policies. There are only minor differences between the paths into the shutdown and the paths out of shutdown. This applies both to an overall comparison of the states and a comparison of the six policies in the single state. Compared to other states, facilities in all policies were closed comparatively late in Bremen and all except gambling halls in Thuringia. In all 16 states, restaurants were closed later, reflecting the joint agreements (see Chapter 2). In Berlin and Baden-Württemberg, bars and pubs were also closed much later than the other policies. In the opening phase, dance clubs stand out, which were not reopened during the first investigation period in any of the states, as well as the outlier Bavaria, which also had a long closing time for bars and pubs. Restaurants are the policy with the earliest opening time in most states. Only gambling halls were allowed to reopen before restaurants in Baden-Württemberg, Bavaria, Saarland, and Thuringia. Beyond this, there are no policy-related differences in the states but individual priorities and concepts. Conversely, this means that they may well have made different decisions about the risk situation associated with the various policies or the economic pressure exerted by the sectors.

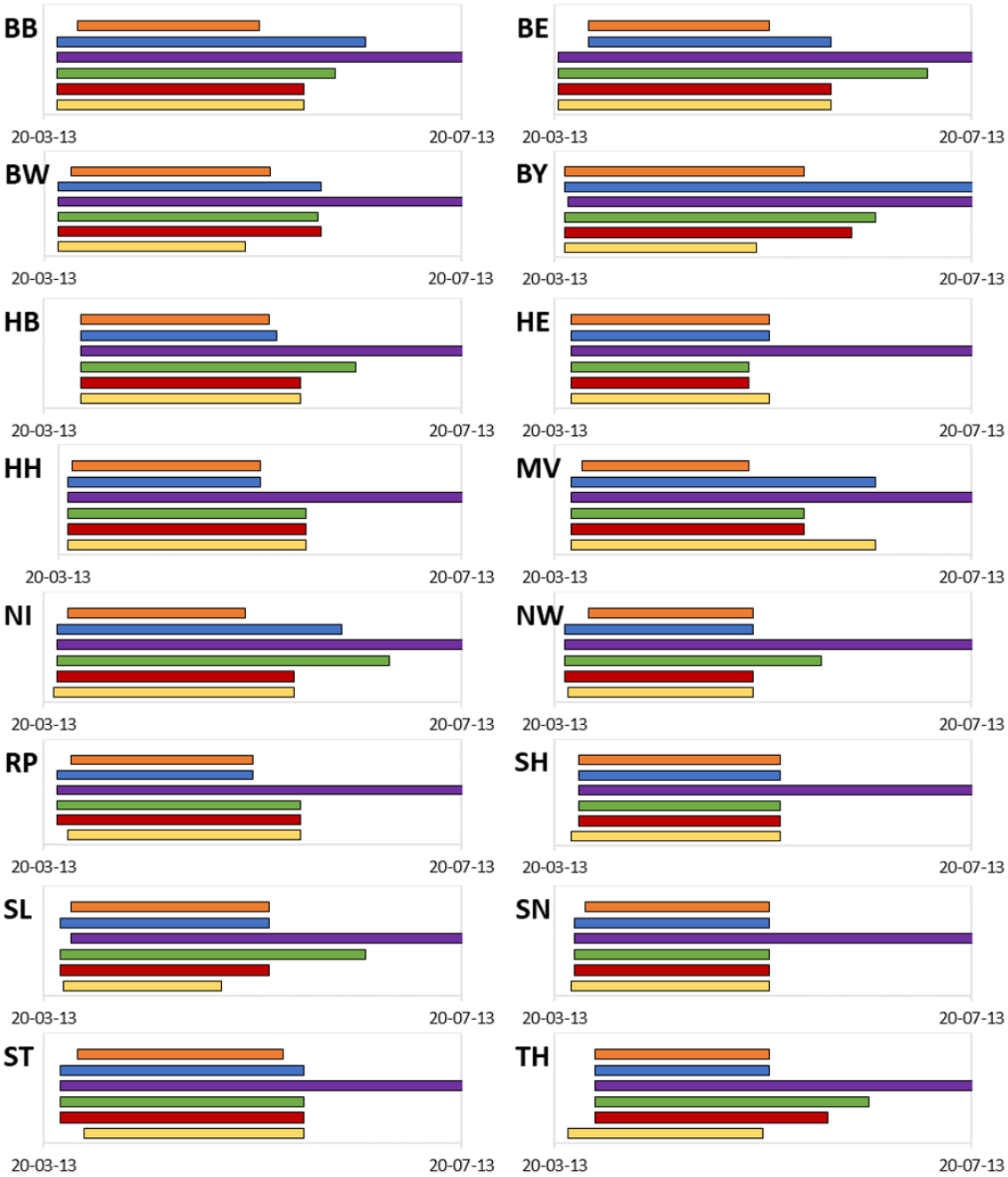

Figure 5: Shutdown 1 – Starting and ending points of the closures differentiated by policies per state

Source: Own compilation

Note: The policies are restaurants (orange), bars and pubs (blue), dance clubs (purple), cinemas (green), gyms (red) and gambling halls (yellow). The X-axis was cut in July 2020 for presentation purposes.

Shutdown 1 | States: Extent of closures over time

To capture differences between states over time, the single policies were transformed into an aggregated index of closures. On each day, each state is assigned the value 1 for closure and the value 0 for opening in each of the six policies. The index can thus vary between 0 (facilities in no policy closed) and 6 (facilities in all policies closed). In this way, the individual policy takes a back seat, and it becomes apparent which states have passed more or less restrictive regulations across all policies and swings or striking shifts at certain times can be recorded.

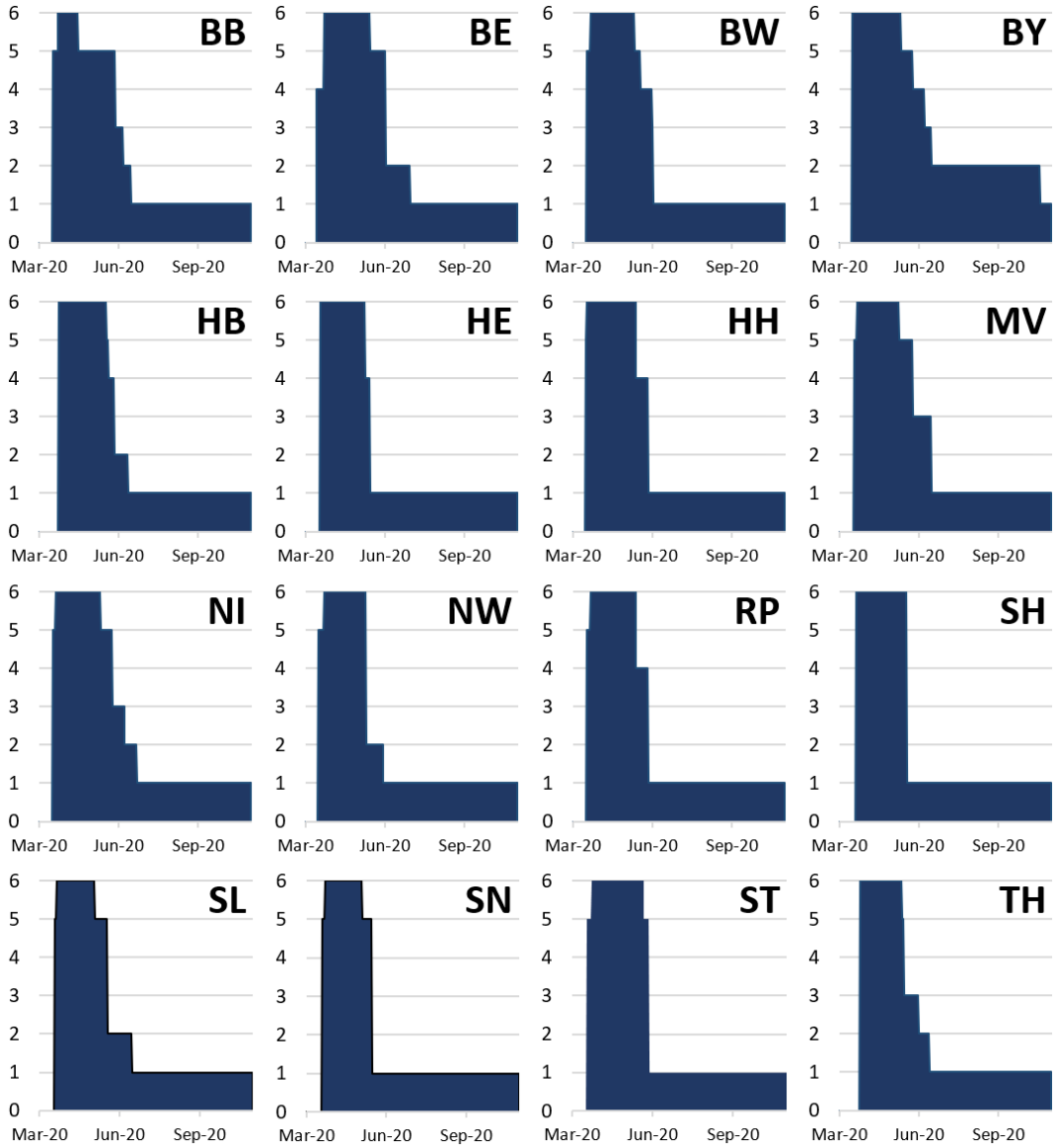

Figure 6: Shutdown 1 – Aggregated closure index per state over time
Source: Own compilation

Figure 6 shows that most states closed facilities in most policies – apart from dance clubs – for only a few weeks from mid-March to early June 2020. An almost simultaneous opening of all or almost all facilities in policies can be seen in Hesse, Hamburg, Rhineland-Palatinate, Schleswig-Holstein, Saxony, and Saxony-Anhalt. In contrast, there is staircase-shaped progress with intervals between openings in Brandenburg, Berlin, Bavaria, Mecklenburg-Western Pomerania, Lower Saxony, Saarland, and Thuringia. Brandenburg has the shortest period of closure of all policies (highest value 6), while Bavaria has kept facilities in another policy closed the longest (in addition to the dance clubs, equivalent to value 2).

4.2 Shutdown 2 (2020/2021)

The second shutdown in Germany began on November 2, 2020, as the reaction to the enormous increase in the number of infections in October in the course of the second wave. The shutdown, which was agreed upon by the 16 state governments and the federal government, was very far-reaching and included the simultaneous closure of all six policies considered in this analysis (cp. Chapter 2). The agreement to keep facilities in these policies closed was extended at several conferences until March 4, 2021. Between March 5 and April 22, 2021, the agreement included only four policies, while the opening of cinemas and gyms was left to the decision of the individual state.

As of April 23, 2021, the Federal Infection Protection Act (the so-called "Federal Emergency Brake") came into force, which, unlike the previous voluntary agreements, imposed mandatory guidelines on the states. Accordingly, by May 6, 2021, all facilities belonging to the respective policy had to be closed if the seven-day incidence exceeded the level of 100 new infections per 100,000 persons for three consecutive days. Conversely, this meant that the states were allowed to adopt their own regulations for incidences below 100 new infections. In this context, the actual incidence trend remained at such a high level until the end of April 2021 that on average, most states did not fall below the 100 mark. The only exception was Schleswig-Holstein and, from the beginning of May, Hamburg and then Lower Saxony. Although there was variance within the states as the federal law applied directly at the county level, only a smaller minority of counties permanently fell below 100. Beginning with May 7, 2021, an opening clause was added to the Federal Infection Protection Act, allowing the states to open facilities in the six policies even if

incidences exceeded 100 (according to the rule above), as long as only vaccinated, recovered, or tested persons entered the facility. At the end of June, the law lapsed, so that from the beginning of July to the end of September 2021 (i.e., for the rest of the investigation period), there were neither voluntary agreements to close facilities nor mandatory requirements by the federal government.

4.2.1 Policies Compared

Analogous to the analysis of the first investigation period, we start by looking at the states' regulations from the perspective of the policy as a whole, i.e., addressing policy-specific patterns comparing the six policies.

Shutdown 2 | Policies: Duration of the closures

The duration of the closures, i.e., the number of days that the facilities in the respective policies had to close, is shown in Figure 7 by the height of the columns. Due to presentation purposes the scale differs between the diagrams representing the different policies. Since the second shutdown was, in total, much longer than the first, longer closure periods are found in all policies. As in the first shutdown, the dance clubs have the longest closure times, but the gap between them and the other policies is now less extreme. The largest range within a policy can be seen in gyms, with 112 days between the highest value of 231 and the lowest value of 119 days. Bars and pubs follow with only one day with a range of 111 days (193 to 302 days), followed by dance clubs with 96 days (210 to 306 days), cinemas with 87 days (155 to 242 days) and gambling halls with 76 days (155 to 231 days). Restaurants have the smallest range with only 38 days between the lowest value of 193 days and the highest value of 231 days. In line with the smallest range, the most even spread of values is also found there. A similar pattern would be seen for bars and pubs without an extreme outlier with 71 days between them and the next state. Another clear outlier, but this time deviating downwards, is found for gambling halls with 39 days ahead of the next state (155/194 days).

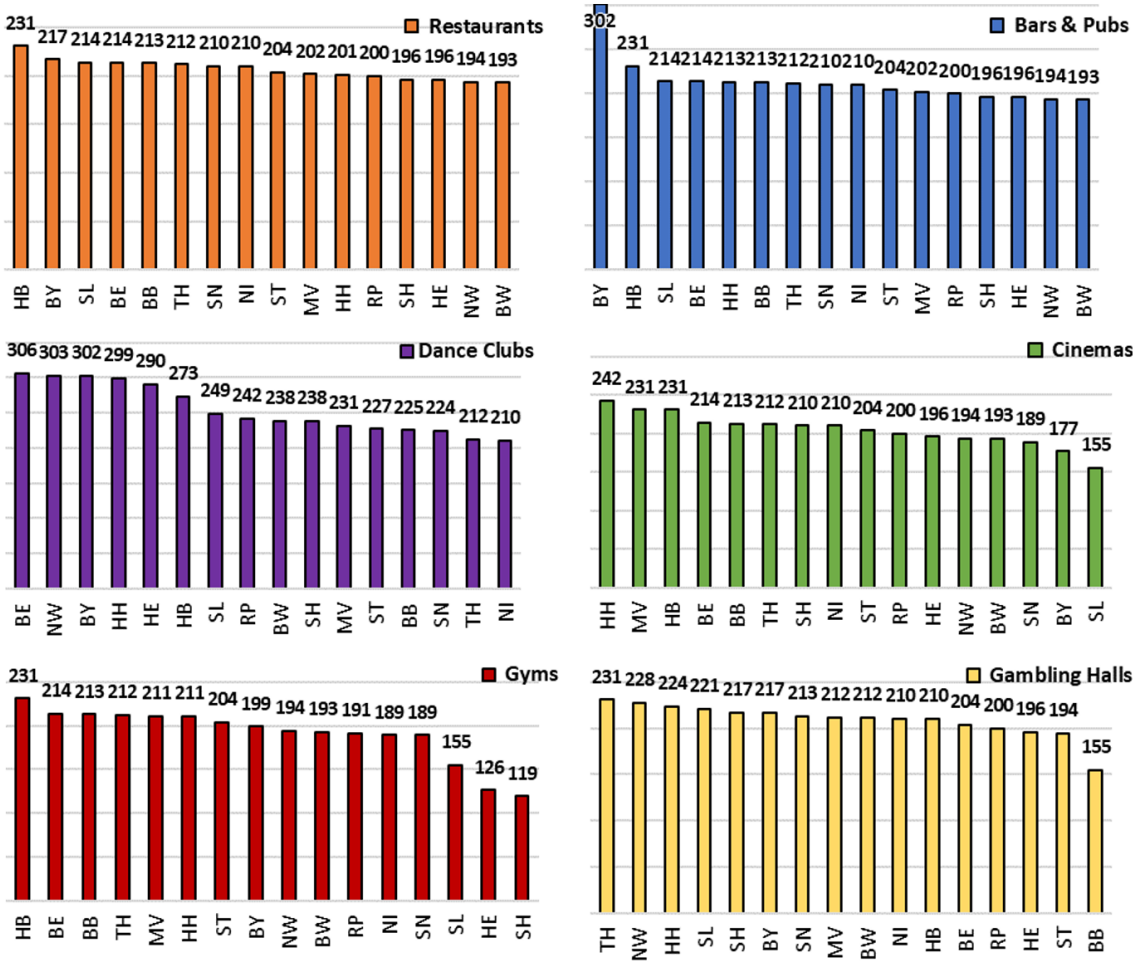

Figure 7: Shutdown 2 – Number of closure days per state differentiated by policies
Source: Own compilation

Shutdown 2 | Policies: Start and end times of the closures

Regarding the distribution on the time axis, only the period of the opening is relevant for Shutdown 2, as facilities in the six policies were closed at the same time in all 16 states on November 2, 2020 (Figure 8). For presentation purposes, the time axes are of different lengths so that a direct visual comparison of the six graphs would be misleading. The shortest period is found for restaurants, where all of the states allowed facilities to reopen within just over five weeks. By the end of June 2021, cinemas, gyms, and gambling halls had also reopened in all states. However, in these policies we can see a much longer time span between the first and the last opening state. For instance, the openings of gyms were spread over a period of around 25 weeks. For bars and pubs, the comparatively longer period until all states had opened is due to an extreme outlier (opening only at the end of

August 2021), as the second-to-last state allowed reopening 10 weeks earlier than the last. With regard to dance clubs, on the other hand, the majority of states was more cautious, so overall the openings started later and were spread over a longer period of 14 weeks.

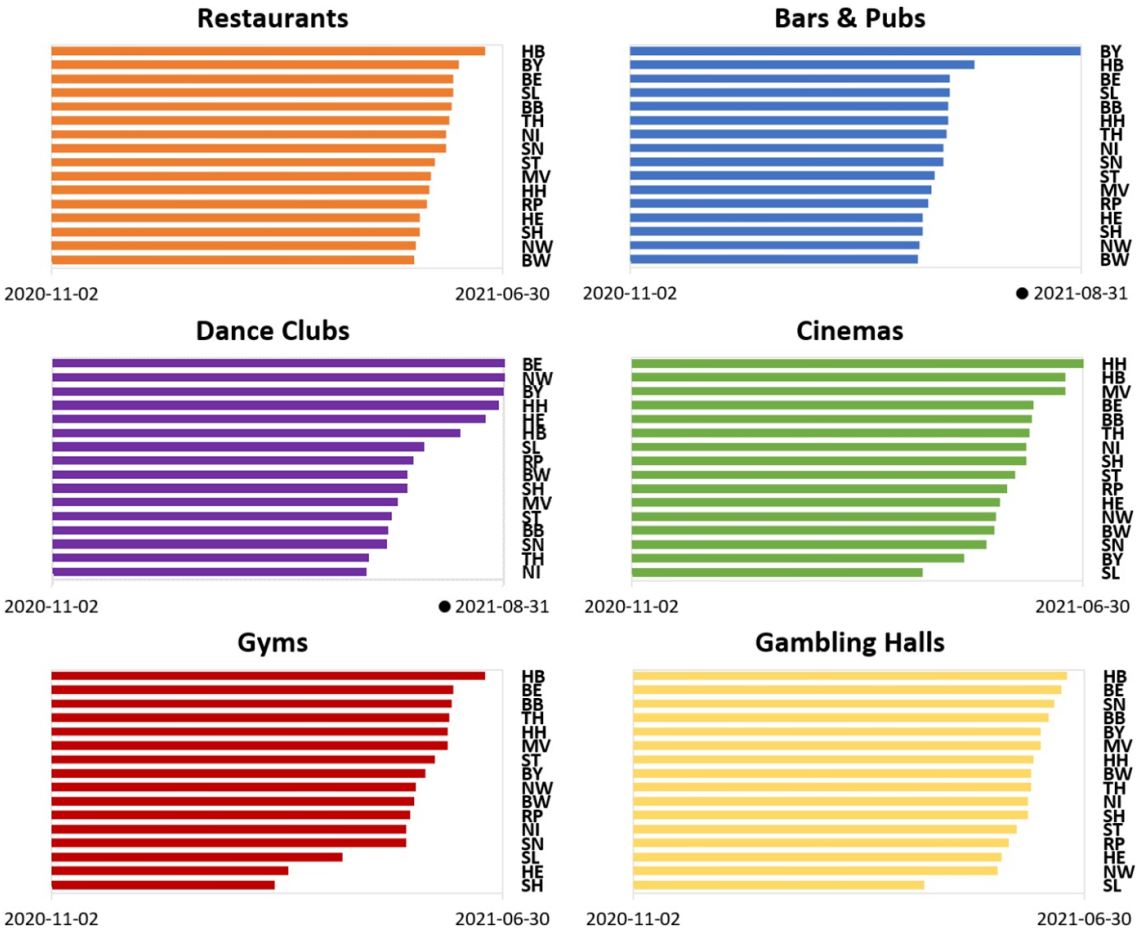

Figure 8: Shutdown 2 – Starting and ending times of the closures
Source: Own compilation
Note: The general time frame ends on June 30, 2021. Due to presentation purposes the end date of the X-axis is set differently for two policies with longer time frames, indicated by a black dot.

4.2.2 States Compared

Again, we change the perspective from policy-related to state-related patterns. We examine whether there are differences between the states in such a way that certain states regulate more restrictively across all policies than others.

Shutdown 2 | States: Duration of the closures

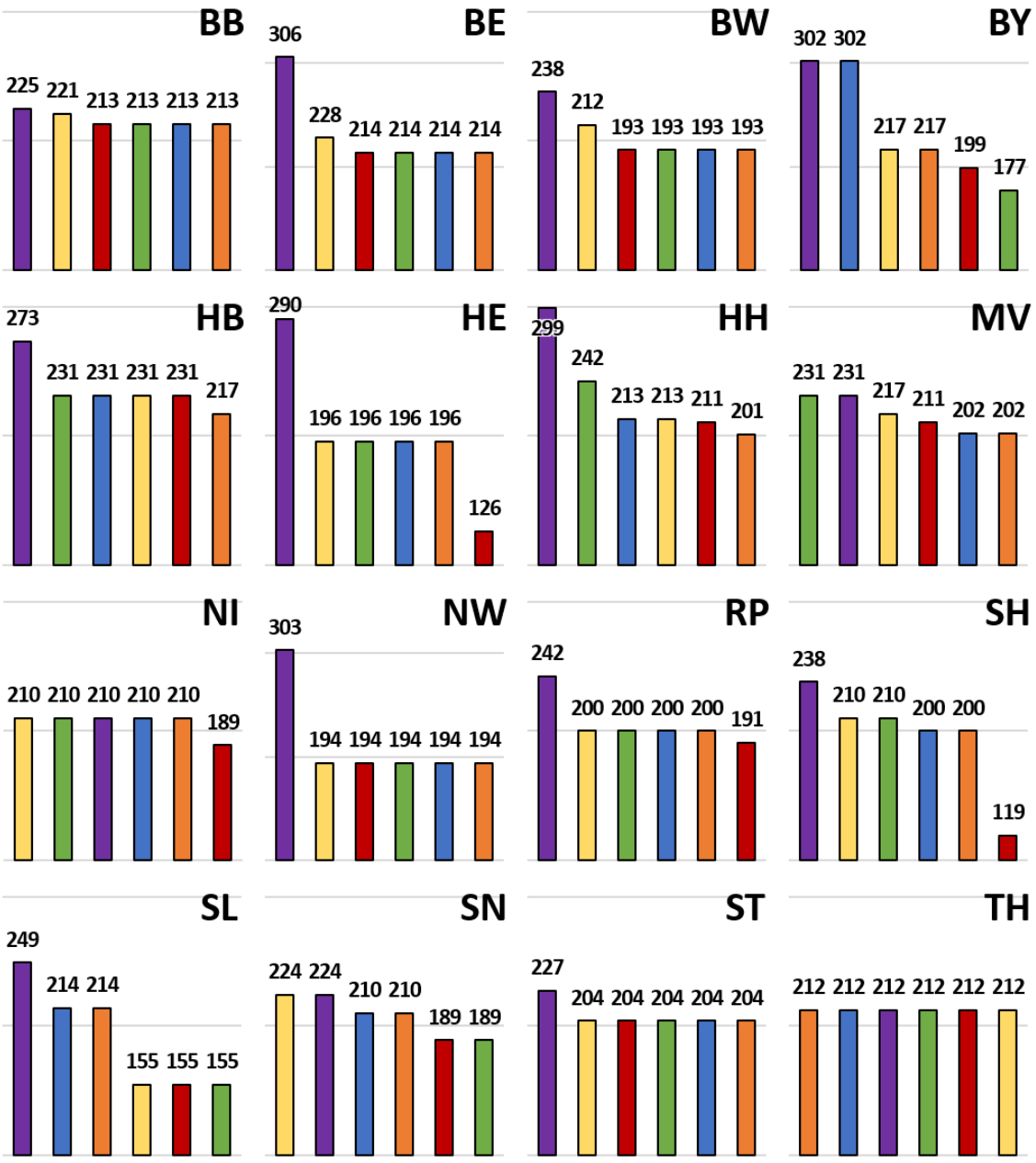

Figure 9: Shutdown 2 – Starting and ending points of the closures differentiated by policies per state

Source: Own compilation

Note: The policies are restaurants (orange), bars and pubs (blue), dance clubs (purple), cinemas (green), gyms (red) and gambling halls (yellow). The Y-axis starts at 100 in all states and varies according to the highest values in the different states.

Figure 9 shows the duration of the shutdown for each state, differentiated by the six policies. As in Shutdown 1, in all states the number of closure days was the highest for dance clubs but now by a smaller margin and sometimes with the same number as one or even several, other policies. No state-related pattern can be identified concerning the order of the other policies, i.e., the states closed or opened facilities in all policies in a different order (in no policy facilities were closed the longest or shortest in all or most states). Larger differences between the number of closure days of the policies within a state can be found in Bavaria, with just as many for bars and pubs as for dance clubs, in Mecklenburg-Western Pomerania, with just as many for cinemas as for dance clubs, and in Hamburg, Saarland, and Saxony. Gyms in Schleswig-Holstein and Hesse are lower outliers with a significantly lower number of days than the other policies in these states. What is striking in comparison to the first shutdown is that many states scheduled only a few days between the opening of the different policies. An exactly equal number of closure days in five policies can be found in North Rhine-Westphalia with 194 days, in Lower Saxony with 210 days, in Saxony-Anhalt with 204 days and in Thuringia with 212 days. In addition, four policies were opened simultaneously in Brandenburg after 213 days, in Berlin after 214 days, in Baden-Württemberg after 193 days, in Bremen after 231 days, in Hesse after 196 days and in Rhineland-Palatinate after 200 days.

Shutdown 2 | States: Start and end dates of the closures

To integrate different opening times of the facilities in the six policies into the analysis, Figure 10 features them on a time axis for all states. Unlike the first shutdown, there are no differences between the states at the beginning, as a joint agreement for closure in all six policies initiates the shutdown on November 2, 2020. As in the first shutdown, the late opening of the dance clubs stands out for most of the states compared to the other policies, although this time only a few states leave the dance clubs closed almost or until the very end. Once again, Bavaria proves to be an outlier by keeping pubs and bars as well as dance clubs closed for a significantly longer period. Unlike in the first shutdown, only Bremen and Hamburg opened restaurants earlier than the other policies. The other states chose other policies (e.g., gyms in Schleswig-Holstein or cinemas in Bavaria) at the beginning of the opening phase or opened several policies at the same time. Again, there

are only partly similar patterns concerning the different policies, but rather clearly different concepts in the opening policies of the states.

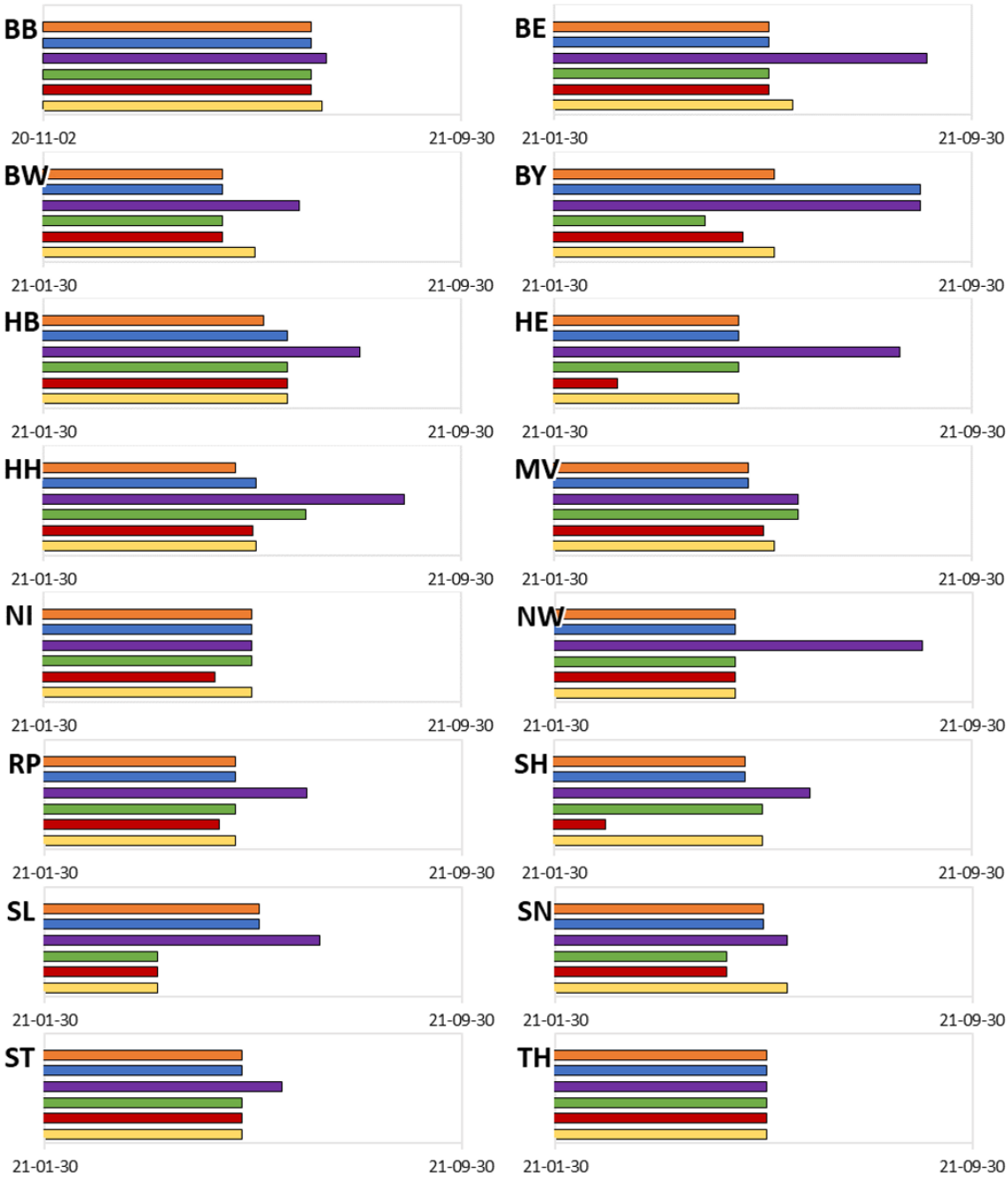

Figure 10: Shutdown 2 – Starting and ending points of the closures differentiated by policies per state

Source: Own compilation

Note: The policies are restaurants (orange), bars and pubs (blue), dance clubs (purple), cinemas (green), gyms (red) and gambling halls (yellow). The Y-axis starts at the end of January 2021 for presentation purposes.

Shutdown 2 | States: Extent of closures over time

To capture differences between states over time, the individual policies were transformed into an aggregated index, as was done for the first shutdown. The index can vary between 0 (facilities in no policies closed) and 6 (facilities in all policies closed) on every single day, so that it reflects which states have passed more or less restrictive regulations across policies over time.

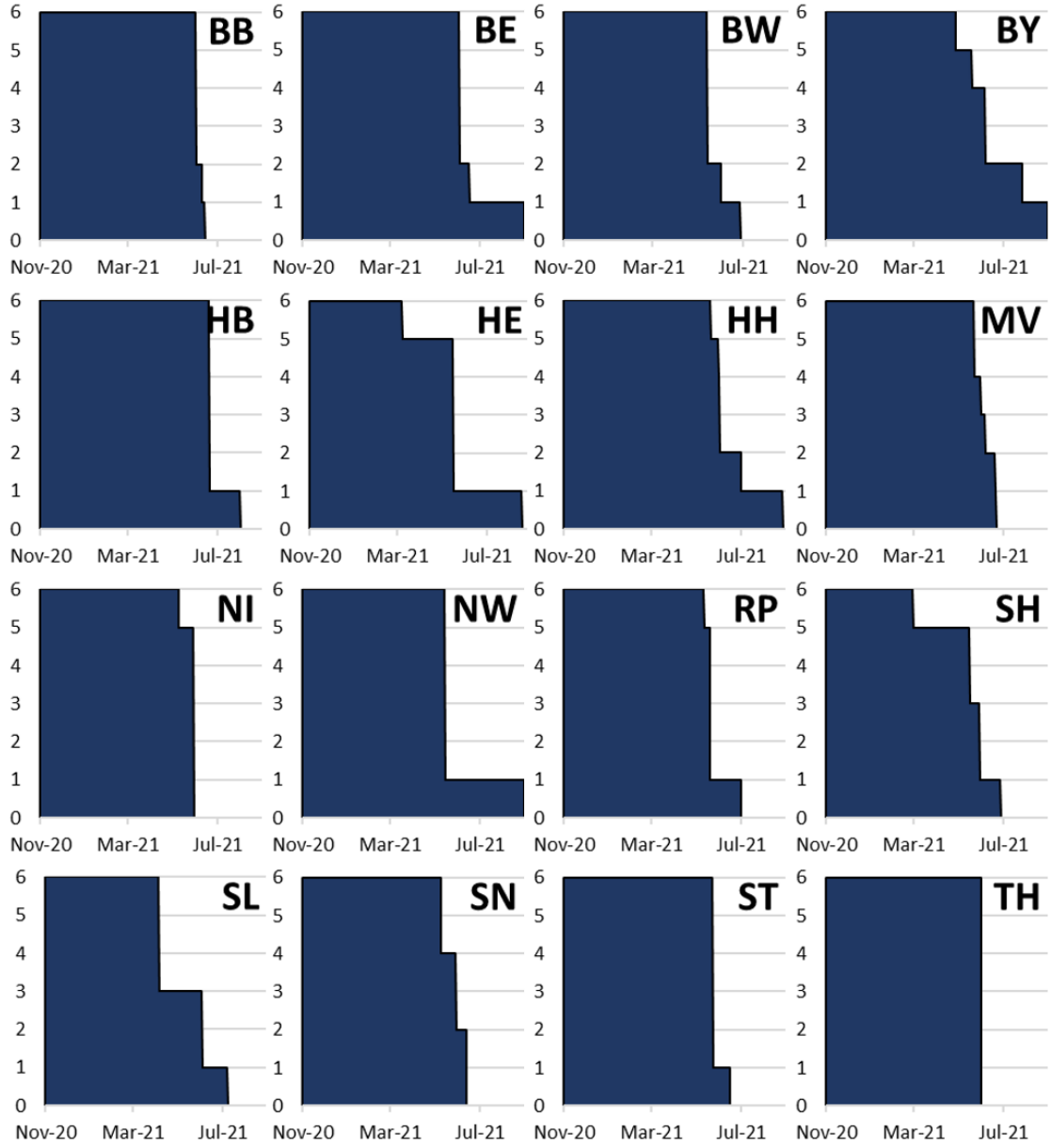

Figure 11: Shutdown 1 – Aggregated closure index per state over time
Source: Own compilation

Figure 11 first shows that in all 16 states the period of complete closure of all six policies accounts for a significantly larger share of the total period under investigation. It is striking that in the second shutdown only five states (Berlin, Bavaria, Hesse, Hamburg, and North Rhine-Westphalia) kept facilities in a policy closed until the end or shortly before the end of the investigation period. An almost simultaneous opening of all or almost all facilities in policies is evident in nine states. On the other hand, staircase-shaped progressions with clear intervals between the openings of facilities in the various policies were only found in Bavaria and Schleswig-Holstein. The shortest period in which facilities in all policies were closed (highest value 6) occurs in Schleswig-Holstein that took the first opening step as early as the beginning of March 2021.

4.3 Comparison of Shutdown 1 and 2

After analyzing the shutdowns separately in detail, we finish the analysis by comparing the results of the two periods regarding differences and similarities. In line with the previous chapters, the first section deals with the policies and the second with the states.

4.3.1 Policies Compared

To compare the distribution of all states' values in the six policies, we present aggregated information in form of boxplots in Figure 12. Shutdown 1 is displayed in the upper part of the diagram. As can be seen the interquartile range (between the first and third quartile) of dance clubs and restaurants is very small, i.e., the middle 50 percent of the values are very close to each other. For bars and pubs, this range is many times larger, meaning that there are huge differences between the number of days the middle 50 percent of the states have closed these facilities. An important location parameter is the median (middle horizontal line inside the box), which divides the distribution into two equal parts and, unlike the mean, is not susceptible to outliers. Using the median, it is apparent that by far the greater proportion of values is in the upper range for bars and pubs, i.e., there are longer closure times in these states. Regarding gyms, it is the other way round as the greater proportion of values is in the lower range. The circles outside the boxes for restaurants, bars and pubs, and dance clubs mark the outliers already mentioned.

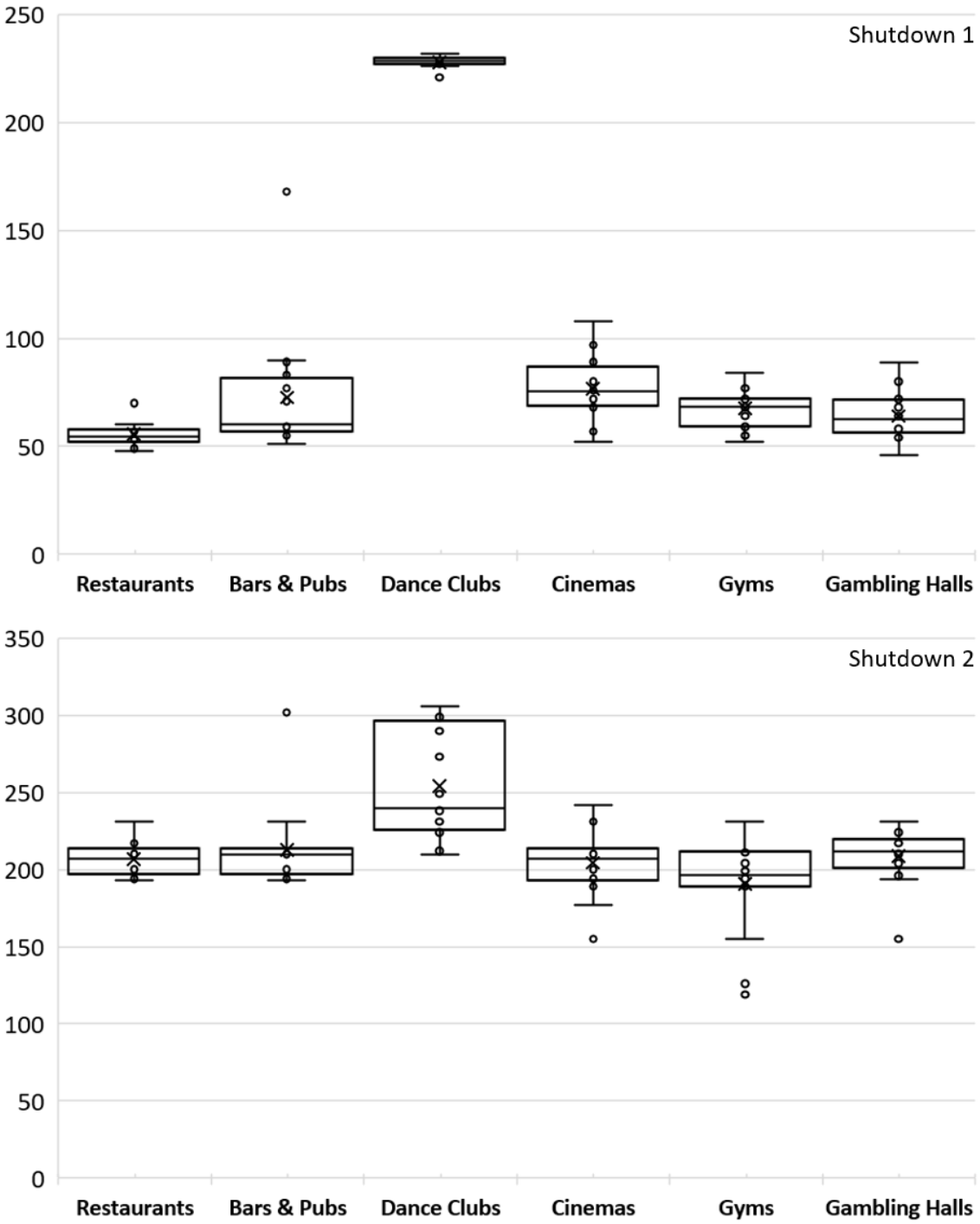

Figure 12: Distribution of the states' closure times in the six policies – Shutdown 1 (upper part) and 2 (lower part) compared
Source: Own compilation

Shutdown 2 is displayed in the lower part of Figure 12. For five of the six policies – restaurants, bars and pubs, cinemas, gyms, and gambling halls – the interquartile range is

rather small, i.e., the middle 50 percent of the values are concentrated in a similarly small range. In the case of dance clubs, the interquartile range is much larger, as there are huge differences between the number of days the middle 50 percent of the states have closed these facilities. The median indicates that by far the greater proportion of the states' values is in the upper range for dance clubs and in the lower range for bars and pubs. The latter contains one upper outlier, whereas cinemas and gambling halls contain one, as well as gyms two, lower outliers.

When comparing the boxplots for Shutdown 2 to those for Shutdown 1, the most striking difference is how the states handled the closing of dance clubs. In both shutdowns dance clubs were closed the longest but with distinctly different patterns. In the first shutdown, all states had nearly the same closure times leading to a very small interquartile range, while in the second one, a large variance of closure times occurred. Regarding bars and pubs, by far the greater proportion of values is above the median in the first shutdown, but below it in the second – each with an upper outlier (Bavaria in both cases) but with a much greater interquartile range in the first period.

4.3.2 States Compared

This chapter compares two aspects from the perspective of the states. The first section presents an aggregated overview of all states across all policies, i.e., the overall distribution matters and not the individual states. Following this, the single states and their concrete positions in comparison to the others are highlighted.

Shutdown 1 & 2 | Distribution of average values of states across policies

We now compare the distribution of states' average values, i.e., the average of the number of closure days across all six policies for Shutdown 1 and 2 (Figure 13). The end of the Y-axis is for each of the shutdown periods the number of days of the entire (part of the) investigation period so that a visual comparison of sizes and proportions becomes possible. The first investigation period reaches from March 1, 2020, to November 1, 2020, which sums up to 245 days, while the second period spans from November 2, 2020, to September 30, 2021, summing up to 332 days. In relation to the different lengths of the two periods, the interquartile range is similar. The median is 93 days for the first period and 210 days for the second period. Thus, averaged over all states and policies facilities were

closed 38 percent of the first period and 63 percent of the second. For Shutdown 1, the median divides the states' values nearly equally, whereas for Shutdown 2, the median indicates that by far the greater proportion of states' values is in the upper range. This means that more states had a longer average closure time across policies. None of the two distributions contains an outlier.

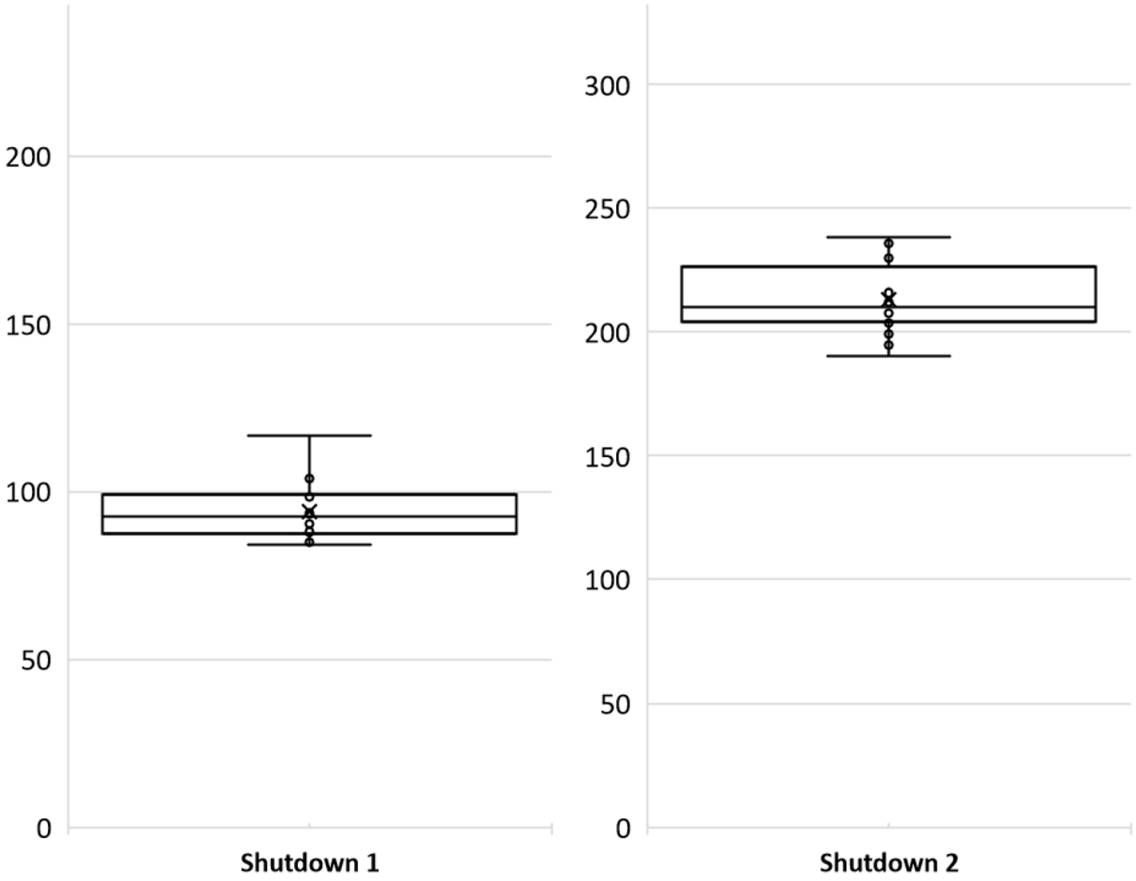

Figure 13: Distribution of the states' average closure times across policies – Shutdown 1 (left) and Shutdown 2 (right) compared
Source: Own compilation

Shutdown 1 & 2 | Individual states

Figure 14 shows the average number of closure days per state across all policies during the two investigation periods. For Shutdown 1, there is a range of 33 days between the states with the highest and the lowest value (Figure 14, upper part). Bavaria – in which facilities had to be closed on 117 days on average – is the clear leader, followed by Berlin

with the second-highest value of 104 days. The state with the lowest value is Hesse, though closely followed by Saxony with only one day more. The other states are distributed relatively evenly between 84 days and 100 days.

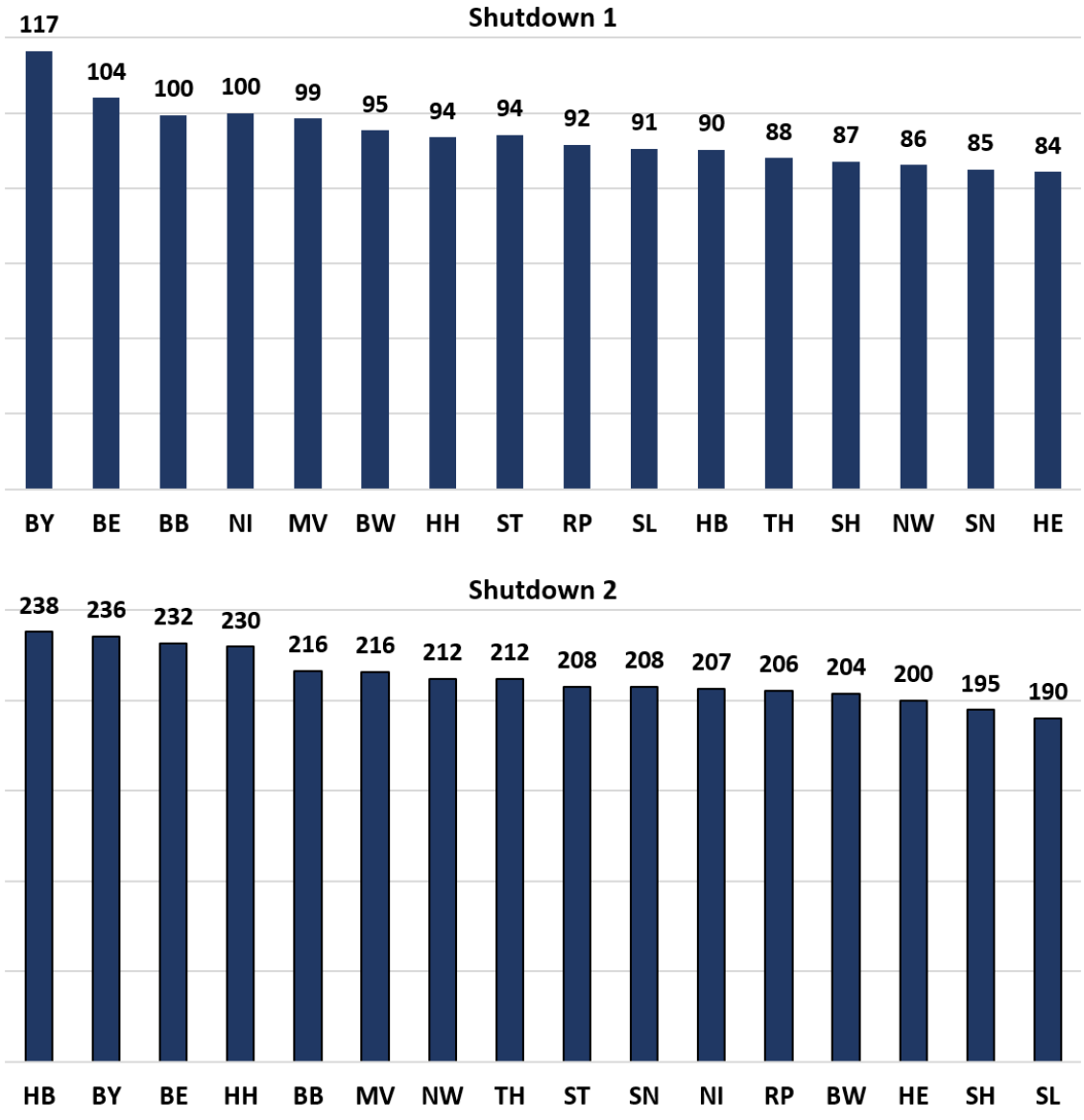

Figure 14: Number of closure days on average per state – Shutdown 1 (upper part) and 2 (lower part) compared
Source: Own compilation

During Shutdown 2 (Figure 14, lower part) the range between the highest and the lowest value was 48 days. Bremen became the new leader with 238 days, closely followed by the previous leader of Shutdown 1, Bavaria, with 236 days. Together with Berlin (232

days) and Hamburg (230 day) these four states formed a group of frontrunners in terms of longer closure times with a clear distance of 14 days to the next state (Brandenburg with 216 days). Saarland kept facilities in the six policies closed the shortest with 190 days on average, followed by Schleswig-Holstein with 195 days. The other states are relatively evenly distributed across the spectrum.

In relation to the overall longer duration of the closures, the span of 48 days in Shutdown 2 (190 to 238 days, 20 percent of the highest value) is a little less than the span of 33 days (84 to 117 days, 28 percent) in Shutdown 1. It is striking that Bavaria decided to repeatedly open facilities comparatively late (the last state in the first shutdown and second-to-last state in the second shutdown), whereas Hesse was one of the faster ones in both periods (the fastest state in the first shutdown and third-fastest state in the second shutdown). As we saw above, there are different regulations for the different policies within the states, which means that at least in some states the policy differences cancel each other out, so that these states' average values converge.

5. Conclusion

"Marching in line through the crisis or setting one's own course in fighting the Covid-19 pandemic?" To answer this question, we conducted a comparative analysis of the facility closures the 16 German states passed in six policies around the two shutdowns during 2020-2021. First, regarding our expectation of only moderate differences between the states' regulations, we underestimated the degree of diversity. Comparing the closure times and the opening order of facilities in the six policies, we found substantial variance in how the states reacted to the pandemic. They developed their own concepts and strategies, often with a different balance between health protection and possible negative consequences of infection control measures.

Looking at individual states, only two of them stand out as having acted similarly in both shutdowns. Comparatively, Schleswig-Holstein opened early on average across all policies, while Bavaria opened late. Other patterns concerning states could not be identified. Although not legally binding, the coordination efforts had a harmonizing influence insofar that during the agreed times almost all states closed the respective

facilities. At the end of the first shutdown, Saarland was the only state which allowed gambling halls to open few days before the joint agreement expired. At the end of the second shutdown, Saarland did the same about two weeks earlier than agreed. Moreover, Schleswig-Holstein allowed gyms to open few days earlier. Consequently, the agreements led to a uniform shutdown in almost all states and policies. However, apart from the commonly agreed shutdown periods, federal diversity unfolded in a clearly visible way, in that several days, weeks, or even months lay between the times of opening in the different states. This means that the – often-mentioned in literature – unitary oriented federalism culture in Germany did not promote further harmonization beyond the joint agreements. To the contrary, the states made use of their scope and set their own course in fighting the pandemic.

Looking at policies, across all states and both periods, the longest closure times are found for dance clubs. However, while dance clubs remained closed until the end of the investigation period in the first shutdown, these facilities finally reopened in the second shutdown. In the first shutdown, restaurants were kept open a few days longer by all states and also reopened earlier, while in the second shutdown they were closed at the same time as the facilities in other policies and did not reopen earlier. No overarching patterns emerge for any of the other policies. This shows that the hazard situation (aerosols, risk of spreading the virus) related to the policies was assessed quite differently by the states. For instance, Bavaria kept bars and dance clubs closed for a similar time in the second shutdown, while North Rhine-Westphalia was one of the first states to reopen bars but kept dance clubs closed much longer. Comparing the two shutdowns, the second one lasted significantly longer due to the persistently high incidence levels across all policies and all states. However, the decision for a second shutdown was made relatively late considering the infection development in absolute numbers. This reflects the incalculable danger situation facing the then-novel virus in the first shutdown, while in the second shutdown the tolerance limit was obviously higher.

Our analysis contributes to federalism research as well as to the so far rather sparse literature of comparative policy analysis addressing the Covid-19 pandemic and the subnational level. Regarding the German states this is surprising insofar as they have been responsible for a multitude of containment measurements. Although there are huge country-comparing datasets available, these do not offer data at the subnational level for

Germany or form such broad categories that a comparison of several individual policies is not possible. With 'restaurants', 'bars and pubs', 'dance clubs', 'cinemas', 'gyms' and 'gambling halls' our dataset comprises six policies that would otherwise have been combined into categories like 'economy' so that variance between the policies and states is no longer visible. To close this gap, we coded a comprehensive dataset including 55,584 datapoints covering every single day between March 2020 and September 2021. While many other studies are limited to one, and an often shorter investigation period, we can draw comparative conclusions of both the first shutdown in spring 2020 and the second shutdown in winter/spring 2020/21. In federalism research most publications focus on the processes and results of coordination. Our analysis not only allows the examining of differences and similarities regarding the states' regulations but also exploring the actual harmonizing effect of coordination by contrasting its results with the states' policy output.

Prospectively, this contribution lays the foundation for further causal analyses. A central factor of political science research to consider could be the partisan composition of the government as well as – given the increase in coalition governments consisting of two or even three parties – the influence of veto players within the government. In the context of the pandemic, problem pressure in the form of incidence trends or hospitalization rates comes into focus. A correlation analysis could show to what extent states reacted to specific and possibly different problem pressure by adapting different policies.

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[II] Iris Reus is assistant professor at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Institute of Political Science. E-mail: iris.reus@fau.de (corresponding author). Julia Nelles is a PhD student at Heidelberg University, Institute of Political Science. E-mail: julia.nelles@ipw.uni-heidelberg.de.
[III] https://www.bsg.ox.ac.uk/research/covid-19-government-response-tracker
[IV] https://www.coronanet-project.org/
[V] A study by Stecker (2021: 249) revealed that after the Federalism Reform I (2006), the share of laws requiring the approval of the Bundesrat had decreased considerably but still amounts to one-third. In exchange for this decrease of their right of approval, the states were provided with new legislative competencies (Reutter 2006: 16). According to an examination by Reus and Vogel (2018: 641) the states passed various laws in several policy fields after the reform with a substantial degree of diversity.

References

Béstate Daniel - Cantillon Bea - Hick Rod - Moreira Amílcar, 2021, 'Social policy in the face of a global pandemic: Policy responses to the COVID-19 crisis', in Social Policy Administration, 55: 249-260.

Broadhurst Kate - Gray Nicholas, 2022, 'Understanding resilient places: Multi-level governance in times of crisis', in Local Economy, 37(1-2): 84-103.

Büthe Tim - Barceló Joan - Cheng Cindy - Messerschmidt Luca - Hartnett Allison Spencer - Kubinec Robert, 2020, Patterns of Policy Responses to the COVID-19 Pandemic in Federal vs. Unitary European Democracies, Paper prepared for presentation at the 2020 Annual Meeting of the American Political Science Association, available online via https://ssrn.com/abstract=3692035 [accessed September 11, 2022].

Chattopadhyay Rupak - Knüpling Felix - Chebenova Diana - Whittington Liam - Gonzalez Philip (eds.), 2022, Federalism and the Response to COVID-19. A Comparative Analysis, Routledge, London/New York.

Congleton Roger D., 2021, 'Federalism and pandemic policies: variety as the spice of life', in Public Choice.

Easton Marleen - De Paepe Jasper - Evans Phoebe - Head Brian W. - Yarnold Jennifer, 2022, 'Embedding Expertise for Policy Responses to COVID-19: Comparing Decision-Making Structures in Two Federal Democracies', in Public Organization Review 22: 309-326.

Ensminger Petra, 2020, Bewährungsprobe für den Föderalismus. Die Bundesstates und die Corona-Pandemie, available online via https://www.ardaudiothek.de/laenderzeit/bewaehrungsprobe-fuer-den-foederalismus-die-bundeslaender-und-die-corona-pandemie/79845028 [accessed November 11, 2022].

Erkoreka Mikel - Hernando-Pérez Josu, 2022, 'Decentralization: A handicap in fighting the COVID-19 pandemic? The response of the regional governments in Spain', in Public Administration Development

Färber Gisela, 2021, 'Germany's Fight Against COVID-19. The tension between central regulation and decentralized management', in Steytler Nico (ed.), Comparative Federalism and COVID-19. Combating the Pandemic, Routledge, London/New York, 51-69.

Federman Peter Stanly – Curley Cali, 2022, 'Exploring Intra-State Tensions in Government Responses to COVID-19', in Publius, 52 (3): 476-496.

Hesse Konrad, 1962, Der unitarische Bundesstaat, C.F. Müller, Karlsruhe.

Jüptner Petr - Klimovský Daniel, 2022, 'Vertical and horizontal intergovernmental relations during the first wave of the COVID-19 crisis: experience from the extremely fragmented CEE countries', in Local Government Studies, 48 (2): 232-250.

Juhl Sebastian - Lehrer Roni - Blom Annelies G -. Wenz Alexander - Rettig Tobias - Krieger Ulrich - Fikel Marina - Cornesse Carina - Naumann Elias - Möhring Katja - Reifenscheid Maximiliane, 2022: 'Preferences for Centralized Decision-Making in Times of Crisis: the COVID-19 Pandemic in Germany', in Sauermann Jan - Tepe Markus - Debus Marc (eds.), Jahrbuch für Handlungs- und Entscheidungstheorie Band 12, Springer VS, Wiesbaden, 1-28.

Kettl Donald F., 2022, 'States Divided: The Implications of American Federalism for COVID-19', in Public Administration Review, 80 (4): 596-602.

Kuhlmann Sabine - Franzke Jochen, 2022, 'Multi-level responses to COVID-19: crisis coordination in Germany from an intergovernmental perspective', in Local Government Studies, 48 (2): 312-334.

Klatt Nikolina - Böhret Ines, 2021, 'Women's rights in childbirth during the COVID-1ß pandemic: A Comparison of WHO Guidelines to Policies, Recommendations, and Practices in the US And Germany', in Cross-cultural Human Rights Review, 1-41.

Kropp Sabine, 2020, Demokratie im Ausnahmezustand: Hat sich der bundesdeutsche Föderalismus in der Krise bewährt?, available online via https://library.fes.de/pdf-files/dialog/16456.pdf [accessed June 4, 2022].

Kropp Sabine, 2010, Kooperativer Föderalismus und Politikverflechtung, VS Verlag für Sozialwissenschaften, Wiesbaden.

Kuhn Katharina - Morlino Irene, 2020, 'Decentralisation in Times of Crisis: Asset Or Liability? The Case of Germany and Italy During Covid-19', in Swiss Political Science Review, 28: 105-115.

Lemke Matthias, 2020, 'Katastrophenmanagement im Föderalismus: Notstandspolitik auf Statesebene im Rahmen der Corona-Pandemie', in Korte Karl-Rudolf (Ed.), Regierungsforschung.de, Duisburg, available online via https://regierungsforschung.de/wp-content/uploads/2020/04/08042020_regierungsforschung.de_Lemke_Katastrophenmanagement.pdf [accessed 9. April 2022].

Lecours André - Béstate Daniel - Fenna Alan - Beck Fenwick Tracy - Paquet Mireille, 2021, 'Explaining Intergovernmental Conflict in the COVID-19 Crisis: The United States, Canada, and Australia', in Publius, 51 (4): 511-536.

Leuprecht Christian, 2008, 'Föderalismuskultur-Banausen: Wie ist es um die föderale Kultur in Deutschstate bestellt?', in Europäisches Zentrum für Föderalismus-Forschung Tübingen (EZFF) (ed.), Jahrbuch des Föderalismus, Nomos, Baden-Baden, 269-284.

Mers Jutta, 2019, Infektionsschutz im liberalen Rechtsstaat, Nomos, Baden-Baden.

Montag Tobias, 2020, 'Die Mär vom dysfunktionalen Flickenteppich. Warum der Föderalismus bei der Bewältigung von SARS-CoV-2 hilft', in Konrad-Adenauer-Stiftung e.V. (ed.), Coronaperspektiven, available online via https://www.kas.de/documents/252038/7938566/Coronaperspektiven.+Die+M%C3%A4r+vom+dysfunktionalen+F%C3%B6deralismus.pdf/d8a64c62-40e1-9d09-35de-59b75f8fa387?version=1.0&t=1587992941414 [accessed September 27, 2022].

Münch Ursula, 2020, 'Wenn dem Bundesstaat die Stunde der Exekutive schlägt: der deutsche (Exekutiv-)Föderalismus in Zeiten der Coronakrise', in Europäisches Zentrum für Föderalismus-Forschung Tübingen (EZFF) (ed.), Jahrbuch des Föderalismus, Nomos, Baden-Baden, 207-226.

Murphy Julia R. - Arban Erika, 2021, 'Assessing the Performance of Australian Federalism in Responding to the Pandemic', in Publius, 51 (4): 627-649.

Navarro Carmen - Velasco Francisco, 2022, 'From centralisation to new ways of multi-level coordination: Spain's intergovernmental response to the COVID-19 pandemic', in Local Government Studies, 48 (2): 191-210.

Pacquet Mireille - Schertzer Robert, 2020, 'COVID-19 as a Complex Intergovernmental Problem', in Canadian Journal of Political Science, 53: 343-347.

Petersen Thomas, 2019, 'Die Einstellung der Deutschen zum Föderalismus seit 1949', in Europäisches Zentrum für Föderalismus-Forschung Tübingen (EZFF) (ed.), Jahrbuch des Föderalismus, Nomos, Baden-Baden, 113-126.

Reus Iris, 2021, 'Die mediale Darstellung des Föderalismus während der Corona-Pandemie – Eine Auswertung von Positionen, Konnotationen und Bewertungen in deutschen Tageszeitungen', in der moderne staat – Zeitschrift für Public Policy, Recht und Management, 14 (2): 373-391.

Reus Iris - Vogel Stephan, 2018, 'Policy-Vielfalt zwischen den Bundesländern nach der Föderalismusreform I: Art, Ausmaß und Akteure', in Zeitschrift für Vergleichende Politikwissenschaft, 12: 621-642.

Reutter Werner, 2006, 'Regieren nach der Föderalismusreform', in Aus Politik und Zeitgeschichte (APuZ), 50: 12-17.

Rudzio Wolfgang, 201910, Das politische System der Bundesrepublik Deutschland, Springer VS, Wiesbaden.

Scharpf Fritz W., 2008, 'Community, Diversity and Autonomy. The Challenges of Reforming German Federalism' in German Politics, 17 (4): 509-521.

Schnabel Johanna - Hegele Yvonne, 2021, 'Explaining Intergovernmental Coordination during the COVID-19 Pandemic: Responses in Australia, Canada, Germany, and Switzerland', in Publius, 51 (4): 537-569.

Stecker Christian, 2021, 'Bundesratsveto, Zustimmungsgesetzgebung und Föderalismusreform', Europäisches Zentrum für Föderalismus-Forschung Tübingen (EZFF) (ed.), Jahrbuch des Föderalismus, Nomos, Baden-Baden, 235-250.

Steytler Nico (ed.), 2021, Comparative Federalism and COVID-19. Combating the Pandemic, Routledge, London/New York.

Thiele Alexander, 2012, '§54 Katastrophenschutzrecht im deutschen Bundesstaat' in Härtel Ines (ed.), Handbuch Föderalismus – Föderalismus als demokratische Rechtsordnung und Rechtskultur in Deutschland, Europa und der Welt, Springer, Berlin/Heidelberg, 69-94.

Toshkow Dimiter - Carroll Brendan - Yesilkagit Kutsal, 2022, 'Government capacity, societal trust or party preferences: what accounts for the variety of national policy responses to the COVID-19 pandemic in Europe?', in Journal of European Public Policy, 29 (7): 1009-1028.

Vampa Davide, 2021, 'COVID-19 and Territorial Policy Dynamics in Western Europe: Comparing France, Spain, Italy, Germany, and the United Kingdom', in Publius, 51 (4): 601-626.