

Explaining Intergovernmental Coordination during the COVID-19 Pandemic: Responses in Australia, Canada, Germany, and Switzerland

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The COVID-19 pandemic required prompt action from governments all over the world. In federal systems, it can be important or beneficial to coordinate crisis management between the various governments. The extent to which intergovernmental coordination occurred and the form it took (vertical or horizontal) varied across countries and regarding the measures taken. By examining the introduction and the subsequent easing of containment measures and the procurement of medical supplies in Australia, Canada, Germany, and Switzerland, this article identifies the circumstances under which intergovernmental coordination occurs. Surprisingly, the existence of strong intergovernmental councils did not lead to closer intergovernmental coordination. Governments coordinated more intensively when jurisdiction was shared, problem pressure was high, and measures were(re-)distributive in nature. Vertical coordination was more likely when vertical intergovernmental councils existed and powers were shared.

The coronavirus disease 2019 (COVID-19) pandemic required prompt action from governments all over the world to prevent the spread of the virus and avoid the overburdening of health systems. Decisions had to be made under high levels of uncertainty. Governments quickly imposed containment measures and purchased medical equipment to overcome or prevent shortages in an increasingly competitive environment. In federal states, where powers are distributed between two levels of government (Elazar 1987; Hueglin and Fenna 2015; Riker 1964; Watts 2008), both the federal government and the constituent units took action to fight the virus.

Observers publicly criticized governments that failed to coordinate their decisions, claiming that such lack of coordination weakened crisis management (Chouinard 2020). Coordinated approaches to crisis management, meanwhile, were praised for leading to consistent crisis responses (Palermo 2020; Vampa 2020),

which were considered essential to containing the virus and giving the population a sense of security. Intergovernmental coordination was put forward as the core recommendation for federations to manage the COVID-19 crisis (OECD 2020a).

In federal states, the federal government and the constituent units can, in principle, make their own decisions in areas for which they are responsible. Such autonomy allows them to tailor policy to local circumstances and preferences. It can also enable policy experimentation and learning. However, intergovernmental coordination can sometimes be beneficial and desirable. Coordination helps avoiding negative externalities (Kennett 1998), harmful competition (Behnke 2014; Braun 2006; Wasserfallen 2015), and intergovernmental conflict (Cameron and Simeon 2002; Parker 2015; Wasserfallen 2015; Watts 2008). It can prevent incoherencies, inconsistencies, fragmentation, redundancies, contradiction, and duplication (Bouckaert, Peters, and Verhoest 2010; Jensen, Koop, and Tatham 2014; Peters 1998; 2015). By coordinating, governments can realize economies of scale (Bouckaert, Peters, and Verhoest 2010; Painter 1998), engage in policy learning (Füglister 2012; Füglister and Wasserfallen 2014; Wallner 2014), and achieve equity in public service delivery (Thorlakson 2003, 16; Bolleyer 2006). The benefits of coordination are particularly visible in times of crisis (Boin and Bynander 2016; Migone 2020). The social, economic, and fiscal effects of COVID-19 differed widely across the constituent units of federations (OECD 2020b). Consequently, uncoordinated measures can lead to domestic competition over medical equipment, regulatory fragmentation, lower service standards, and fragmented use of resources (OECD 2020a, 7).

Despite the possible benefits of a coordinated response to the COVID-19 pandemic, the extent to which coordination occurred, and its direction, varied across countries and across measures. Although the literature on intergovernmental relations has shown how governments coordinate (e.g., Bolleyer 2009; Poirier, Saunders, and Kincaid 2015), we still lack an understanding of the circumstances under which governments coordinate. Furthermore, we do not know under which conditions coordination occurs vertically (between the federal government and the constituent units) or horizontally (between different constituent units).

Against this backdrop, this article explores the conditions under which governments coordinated during the COVID-19 pandemic, focusing on four cases: Australia, Canada, Germany, and Switzerland. We examine the coordination of decisions to introduce and ease containment measures and to purchase medical equipment. The crisis offers an excellent opportunity for international comparison of intergovernmental coordination as most federations introduced very similar measures at a similar point in time. This article shows that the existence of strong intergovernmental councils did not lead to closer intergovernmental coordination. Governments coordinated more intensively when jurisdiction was shared, problem pressure was high, and measures were (re-)distributive in nature. As regards the

direction of coordination, vertical coordination was more likely when vertical intergovernmental councils exist and powers are shared. We found little horizontal coordination.

Intergovernmental Coordination

Conceptualizing Coordination

Despite the vertical division of powers that defines federalism, intergovernmental relations—that is, the various interactions through which governments coordinate policymaking—are “the lifeblood of federalism in practice” (Poirier and Saunders 2015a, 4). Although coordination always means giving up some autonomy, governments may choose to coordinate when they perceive an individual or collective advantage; when the costs or benefits of their actions or services lie outside their constituency; when they want to minimize inequalities resulting from the distribution of resources and finances; and finally, when constitutions create interdependencies that can be managed through coordination (Benz 2020, 40).

Coordination is often conceptualized as either a process or an outcome (Peters 1998). Process and outcome are used in policy analysis to conceptualize policymaking and its effects (e.g., Knill and Tosun 2020, 25, 26). However, policymaking is more than a process and an outcome. Drawing on this literature, we model intergovernmental coordination in its complexity: coordination is a process in which actors interact as a result of which we may see a coordination output. This output may lead to a coordinated outcome, which may result in an impact (figure 1).

The most common conceptualization of coordination is as an *outcome*. In policy analysis, an outcome refers to “the way policies induce behavioural change on the side of the target actors” (Knill and Tosun 2020, 25). Regarding intergovernmental coordination, the target actors are the governments. An outcome is coordinated if governments adopt policies that are “characterized by minimal redundancy, incoherence and lacunae” (Peters 1998, 296). A vertically coordinated outcome is achieved if policies by the two levels of government are consistent and coherent. A horizontally coordinated outcome means that the policies by some or all constituent units are similar, complementary, or even uniform. Examining coordination as an outcome during the COVID-19 pandemic would mean assessing the degree of similarity and coherence of the measures taken by different governments. Policies can be similar, uniform, and coherent even without a coordination process, however, namely when political actors independently choose similar or coherent solutions to similar problems.

Coordination as a *process* refers to “strategies and instruments governments use to coordinate organizations or programs” (Bouckaert, Peters, and Verhoest 2010, 16). Regarding intergovernmental coordination, a process perspective captures the way

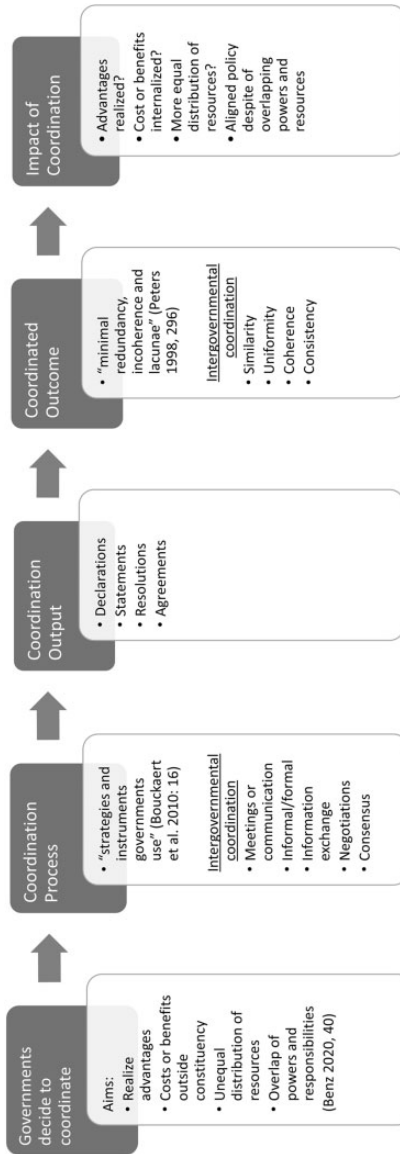


Figure 1 Conceptualizing intergovernmental coordination.

governments interact. For example, members of government may arrange official intergovernmental meetings or set up intergovernmental councils (Behnke and Mueller 2017). The direction of this process can be *vertical*—between the federal government and the constituent units—or *horizontal*—between the constituent units. The coordination process aims to exchange information and to discuss policymaking. It can consist of discussions, negotiations, or consensus building. Governments have various strategies and instruments to coordinate at their disposal which often serve to counteract disruptions or gridlock (Benz 2009b, chap. 7). Intergovernmental coordination as a process can involve politicians and bureaucrats. Coordination can also occur via informal phone calls or personal contacts (Gauvin 2017; Inwood, Johns, and O'Reilly 2011; Parry 2012). Whether it is informal or formal, a coordination process is difficult to capture because it often takes place behind closed doors.

In policy analysis, there is another step between process and outcome, namely the output. Policy outputs are the “direct results of the decision-making process” (Knill and Tosun 2020, 25). Intergovernmental coordination can lead to a joint declaration, resolution, agreement, or statement which is made public (in writing or at press conferences). Such public announcements, even when not legally binding, demonstrate political commitment and are more likely to be implemented and have an effect. This understanding of intergovernmental coordination as an *output* has so far been overlooked. Inspired by policy analysis, we understand coordination outputs as the direct result of a coordination process. Coordination outputs indicate and document the result of the coordination process and serve as a starting point for the enactment of policies or programs. Especially when a coordination process is informal, there might not be an output. However, it can be assumed that the most important coordination results lead to an output.

The final step in policy analysis is the *impact* of a policy—that is, “the extent to which a policy decision and its subsequent implementation have actually brought about the expected results” (Knill and Tosun 2020, 25). Similarly, the impact of intergovernmental coordination is indicated by the extent to which the original problem is solved. For example, negative externalities are avoided or inequalities are reduced.

In this article, we focus on coordination as an output. Examining coordination outputs avoids the problem of opacity of coordination processes. Outputs are the most important and visible results of a coordination process and a direct indication of its occurrence. In contrast to coordination as an outcome, focusing on coordination as an output allows for a more direct and reliable conceptualization of actual coordination. Other factors—such as local circumstances, political interests, and legal obligations—can intervene between the coordination process and the outcome, making the outcome look more or less coordinated than actually intended. Similarly, the impact of coordination is influenced by many other factors.

In the following, we distinguish five levels of coordination output (figure 2):

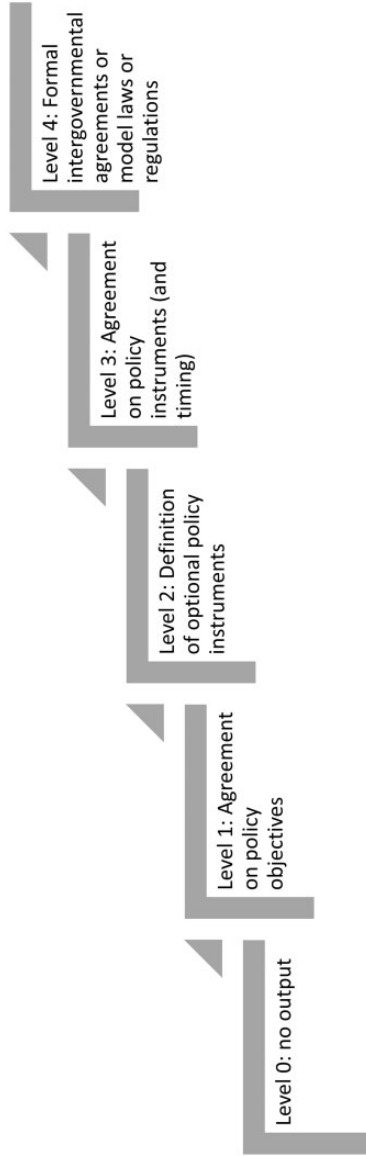


Figure 2 Levels of coordination as an output.

Level 0: No output

It is possible that no coordination output is visible because no coordination process took place. Even if a coordination process took place, the result can be that no output is generated because negotiations failed; or because the coordination process was only aimed at information exchange rather than a joint policy.

Level 1: Agreement on policy objectives

During the coordination process, actors can decide to pursue joint policy objectives. They set broad directions for policies to be adopted by the different governments. For instance, governments may jointly announce to adopt containment measures or to procure additional medical equipment. They do not agree on specific policy instruments, measures, or timing.

Level 2: Definition of optional policy instruments

In addition to agreeing on policy objectives, governments may discuss policy options and may even define (specific) policy instruments and measures. However, they do not reach agreement on the implementation or timing of the instruments. Instead, they agree that each government shall act according to its preferences or local circumstances. These coordination outputs are often guidelines or recommendations. For instance, governments may establish a framework outlining different options to reach a policy objective, and each government decides whether and how closely it implements this framework. An example would be a declaration that governments “will consider” further restrictions, such as school closures if infection rates increase.

Level 3: Agreement on policy instruments (and timing)

Governments can also reach agreement to adopt—that is, not only to consider—(specific) policy instruments to reach a policy objective. This can include agreement on timing (i.e., at what point in time instruments should be adopted, and how long they should last). For instance, governments may announce that they agreed to close schools and restaurants with immediate effect until infection rates decline below a specific threshold. In contrast to level 2, the output indicates that governments commit to implementing these instruments.

Level 4: Formal intergovernmental agreements, model laws or regulations

Finally, governments may agree on a model law or regulation (and its exact wording) or may sign intergovernmental agreements to be ratified or implemented (verbatim) by each government (Bochsler 2009; Parker 2015). Examples during the COVID-19 pandemic would be model regulations on social distancing or quarantine or funding agreements on health care delivery or the procurement of medical equipment.

These levels of coordination output build on each other. First, a coordination process needs to take place and an output indicating agreement on general policy objectives needs to be generated to classify as level 1. On the basis of these policy objectives, a list of optional policy instruments can be defined, without a commitment to implementation or timing (level 2). The coordination level is higher if the output includes a commitment to implement these policy instruments and agreement on a timeline (level 3). A further step would be agreement on the exact wording of a law or regulation (level 4).

Explaining Coordination

In this section, we present several expectations about the circumstances under which intergovernmental coordination is more likely and about the direction it might take. Although these expectations potentially apply to intergovernmental coordination generally, we focus on intergovernmental coordination during a crisis.

On the basis of the federalism literature, we expect the strength of intergovernmental councils and the distribution of powers to explain when and how governments coordinate. Drawing on the policy literature, we assume that certain aspects of the policy problem at stake, such as problem pressure and the type of policy, can also explain the extent and direction of intergovernmental coordination. We do not consider political factors, such as the composition of governments, party systems, and power-sharing executives (Bolleyer 2009; Filippov, Ordeshook, and Shvetsova 2004) because during our period of observation, there was relatively little partisan disagreement on measures introduced in response to the COVID-19 pandemic.

Intergovernmental Councils

Intergovernmental councils are the established coordinative mechanism in federal states (Behnke and Mueller 2017; Bolleyer 2009; Painter 1998; Poirier and Saunders 2015b; Schnabel 2020). They are more or less regular meetings of members of the executive branch of government—first ministers (*generalist councils*) or line ministers (*policy-specific councils*).

Federations differ in the functioning of their intergovernmental councils (Bolleyer 2009; Cameron 2001; León and Ferrín Pereira 2011; Schnabel 2020; Watts 2003). Strong councils, shaped by a high degree of formalization and frequent and regular interactions, foster trust among governments; facilitate the convergence of interests; promote problem solving; and enhance the reliability of intergovernmental interactions (Bolleyer 2009; León and Ferrín Pereira 2011; Painter 1998; Schnabel 2020; Wanna et al. 2009). In systems with councils that operate in an *ad*

hoc fashion, a similar routine for intergovernmental interactions does not become established (Bolleyer 2009; Schnabel 2020; Trench 2006).

In line with Kincaid, Tarr, and Wälti's (2010) finding that governments in federations with a coordination tradition were more likely to coordinate their response to the Global Financial Crisis (2007–2008), we expect higher levels of intergovernmental coordination in federations with strong councils because governments are more likely to trust each other; interaction is more reliable; and there are practiced routines of coordination which they can use in times of crisis.

(E1a) Higher levels of coordination are more likely when strong councils exist than when councils are weak.

Councils can also differ in their membership. They may include the federal government and the constituent units (*vertical councils*) or only the constituent units (*horizontal councils*) (Bolleyer 2009; Poirier and Saunders 2015b). We expect vertical coordination in federations with vertical councils and horizontal coordination in federations where horizontal councils prevail.

(E1b) Vertical coordination is more likely when vertical councils exist, while horizontal coordination prevails if horizontal councils exist.

Distribution of Powers

Decisions on measures to combat the crisis can be made by the federal government, the constituent units, or both. Whether the federal government, the constituent units, or both have the authority to act depends on the distribution of powers in the federal constitution, on the one hand, and on the existence, activation, and use of emergency legislation, on the other hand. The constitution may either assign exclusive jurisdiction to the federal government or the constituent units, respectively, or can assign shared jurisdiction to the two levels of government (Behnke 2018; Thorlakson 2003; Watts 2008). In times of crisis, federal emergency legislation can alter the distribution of powers—if the federal government decides to declare an emergency and uses these powers to override constituent unit (exclusive or shared) powers. If the federal government declares an emergency and uses its emergency powers, exclusive jurisdiction shifts to the federal level.

Which level of government has the authority to act has an influence on intergovernmental coordination (Bolleyer 2006, 475; León and Ferrín Pereira 2011, 517). We do not expect coordination when decisions fall under federal government jurisdiction, that is, when the federal government is assigned the authority to act by the constitution or when it activates and uses emergency legislation. Such exclusive federal powers allow the federal government to make binding decisions for the whole federation and do not require the constituent units' cooperation.

(E2a) Non-coordination is more likely if the federal government has exclusive jurisdiction or if it activates and uses emergency legislation.

If the constituent units have exclusive jurisdiction in normal times and the federal government cannot or does not activate or use emergency powers, the constituent units maintain the authority to act. Consequently, the constituent units can choose not to coordinate, holding on to their autonomy. However, exclusive powers of the constituent units may lead to contradictory policies, negative externalities, and harmful competition. Thus, the constituent units have incentives to avoid these adverse effects. They may also seek to pool resources to manage the crisis jointly or to exchange information.

(E2b) Horizontal coordination is more likely if the constituent units have exclusive jurisdiction.

Shared jurisdiction means that governments share powers within the same policy area—because the constitution assigns different aspects of the same policy area to both levels of government (Bolleyer and Thorlakson 2012, 6), or because of framework legislation or concurrent powers (Watts 2008, chap. 5).

Intergovernmental coordination can be expected when governments share jurisdiction since competition, contradictions, and redundancies are likely. Those detrimental consequences can be avoided by coordination. Because both levels can act when jurisdiction is shared, we expect coordination to be vertical.

(E2c) Vertical coordination is more likely when the two levels of governments share jurisdiction.

We also expect shared jurisdiction to generate higher levels of coordination, while exclusive jurisdiction (whether of the federal government or the constituent units) is likely to lead to lower coordination levels. This is because governments may hold on to their autonomy if they have exclusive powers.

(E2d) Higher levels of coordination are more likely when powers are shared than when governments have exclusive jurisdiction.

Problem Pressure

Another factor likely to determine intergovernmental coordination is problem pressure. Under high problem pressure, which is a defining characteristic of crises, governments need to (re)act rapidly. The crisis management literature has identified coordination as being a crucial success factor (Boin and Bynander 2016). Moreover, it has been shown that actors are willing and able to coordinate their actions when they are under high pressure (Faraj and Xiao 2006). Indeed, Wagner

and Kneip (2020) find that initial problem pressure explains how measures were introduced in European countries during the COVID-19 pandemic.

Intergovernmental coordination enables the rapid exchange of information in a situation with many uncertainties and the prompt mobilization of resources. It can ensure that all necessary decisions are immediately taken. The two levels of governments tend to have different resources and capacities to respond to a crisis, and their distribution is often unequal (Lester and Krejci 2007). Similarly, knowledge and information are spread, often unequally, across different orders of government (Paquet and Schertzer 2020). Yet, the governments on both levels must quickly “receive and comprehend the warning” and “know what is needed” (Nukpezah 2017, 291). Furthermore, failed leadership and failed crisis management due to non-coordination in crucial phases might lead to electoral loss (León and Ferrín Pereira 2011, 518). Thus, high-problem pressure might generate closer intergovernmental coordination.

(E3) Higher levels of coordination are more likely when problem pressure is high than when it is low.

Policy Type

The type of policy problem could also influence intergovernmental coordination. According to Lowi (1972), there are four types of policies. *Constituent policies* concern the design and creation of public institutions (the policies analyzed in this article do not belong to this category). *Distributive policies* allocate public resources to the public or different groups, for example, in the form of subsidies or infrastructure. *Redistributive policies* reallocate public resources from one group and to another group. *Regulatory policies* regulate the “conditions and constraints for individual and collective behavior” (Knill and Tosun 2020, 15). Distributive and redistributive policies are difficult to distinguish (Knill and Tosun 2020, 14 *et seq.*). In distributive policies, “new” funds are distributed to a certain group of actors. These “new” funds usually have to be levied somehow (i.e., through taxes), so that distribution also contains a redistributive element. Therefore, we distinguish only between regulatory and (re-)distributive policies.

In federal states, policy decisions often involve the (re-)distribution of resources between the constituent units. These distribution processes are complex and can lead to intergovernmental conflict (Blöchliger and Vammalle 2012; Lecours and Béland 2013). Therefore, they require rather specific distribution or funding arrangements and commitments. In regulatory policy, in contrast, the (financial) stakes are lower, and agreement on policy objectives may often be considered sufficient.

(E4a) Higher levels of coordination are more likely when a policy is (re-)distributive than when a policy is regulatory.

Methods and Data

To explore these expectations, we compare the main policy instruments to combat the COVID-19 pandemic—that is, measures to contain the spread of the virus and to procure medical equipment—in four federal countries. By choosing measures that were used in all countries under investigation, we can assess the explanatory power of the factors identified above comparatively, while at the same time holding external factors constant. By focusing on individual measures introduced in different countries, we combine within-case analysis and cross-country comparison. This enables us to analyze explanatory factors related to political systems and policy measures comparatively.

Case Selection

Cases were selected to achieve variance on the explanatory variables. The four federations Australia, Canada, Germany, and Switzerland allow for a most-similar-systems design (Przeworski and Teune 1970), with all being Western liberal-democratic states and established federations with parliamentary systems. At the same time, they differ in regard to the explanatory factors, namely, the way powers are assigned and the functioning of intergovernmental councils. Australia and Canada have a high degree of exclusive powers and weak intergovernmental councils (Adam, Bergeron, and Bonnard 2015; Bolleyer and Thorlakson 2012; Phillimore and Harwood 2015). Germany and Switzerland, in contrast, have a high degree of shared powers and strong intergovernmental councils (Bolleyer and Thorlakson 2012; Kropp 2010; Lhotta and von Blumenthal 2015; Pfisterer 2015). By selecting these four countries, we expect to obtain variation on the factors *distribution of powers* and *intergovernmental councils*.

Within those countries, we analyze individual measures. To contain the spread of the virus, all four countries imposed restrictions on gatherings and events, on restaurants and (non-essential) shops, and on face-to-face teaching at schools and higher education institutions. These are all regulatory measures. Furthermore, all countries engaged in the procurement of facemasks and personal protective equipment (PPE), ventilators, and vaccines, which are (re-)distributive measures. Consequently, we also obtain variation on the *policy type*.

Finally, to achieve variance on the factor *problem pressure*, our period of investigation spans from the end of February 2020 (when the first measures were adopted) to the end of July 2020—except for vaccines where decisions were discussed in the second phase but were taken slightly later than July. In all four countries, we observe a first phase of the pandemic with rising number of infections and a second phase with stable or decreasing infection rates. During the initial phase, problem pressure was higher because the disease spread rapidly and uncontrolled, and uncertainty about the virus and its risks for public health was high. In later stages of

the pandemic, problem pressure decreased since the pandemic was, at least temporarily, under control and more knowledge about and experience with the virus existed.

Data

The empirical basis of our study consists of official government documents (public statements, press releases, websites, communiqués) and news reports in the largest national media outlets in each country (see the [Supplementary Appendix](#)).

On the basis of our conceptualization of coordination as an output, we identified intergovernmental coordination through the existence of agreements, joint statements, or resolutions issued, for instance, after meetings or phone calls between members of government. An agreement, joint statement, or joint resolution is vertical if the federal government participated. It is horizontal if only the constituent units coordinated. Coordination level 0 (i.e., non-coordination) is identified by the absence of agreements and joint statements or resolutions. To identify the other coordination levels, we analyzed agreements, joint statements, and resolutions according to the following coding rules ([table 1](#)). To increase

Table 1. Coding rules

Coordination level	Description	Examples
Level 0	No coordination output.	No evidence of agreement after intergovernmental meeting
Level 1	Agreement on broad policy objectives (no specific instrument, timing, amount of equipment, etc.).	<i>Germany</i> : the federal government and the Länder agreed that the federal government should assist in purchasing PPE.
Level 2	Agreement on list of optional policy instruments and flexible timing.	<i>Germany</i> : abolishment and re-introduction of face-to-face teaching was named as an option on several intergovernmental meetings but the Länder could decide themselves on if, when and how to implement.
Level 3	Agreement on concrete policy instruments, sometimes even on (simultaneous) timing for the introduction of containment measures.	<i>Australia</i> : closure of bars and restaurants agreed on by National Cabinet. <i>Switzerland</i> : the number of PPE to be purchased by the federal government and how it should be distributed to the cantons.
Level 4	Formal agreement or contract signed by governments.	<i>Canada</i> : FPT Safe Restart Agreement.

coding reliability, measures were coded by the authors individually and then double-checked by the other author.

Results

Coordination Patterns in Australia, Canada, Germany, and Switzerland

The patterns of intergovernmental coordination varied indeed across the measures and the four federations (for a detailed description see the [Supplementary Appendix](#)). In the following, we portray the crisis management in each country by identifying which level of government decided on measures and describe the dependent variable (intergovernmental coordination).

Australia

In Australia, the *Biosecurity Act 2015* allows the federal government to exercise broad powers to prevent and control the entry and spread of a disease, for example, by limiting international travel, but also by imposing internal control measures. However, the main responsibility to address a public health crisis lies with the states ([Australian Government 2018](#)). The states operate hospitals, the police, (public) schools, and emergency service agencies and they regulate businesses such as restaurants and shops ([Fenna forthcoming](#)). They have their own public health and emergency acts. The federal government and the states are both responsible for the management of health resources, including medical stockpiles ([Australian Government 2018](#)). Procurement of vaccines is a federal government responsibility, but the states identify needs and deliver the vaccines (see National Partnership on Essential Vaccines, July 2009).

In line with their responsibilities, the states decided on containment measures. Both levels of government procured medical equipment and the federal government secured vaccines. The federal government introduced several measures under the *Biosecurity Act* (e.g., a ban on international travel) ([Brenker 2020](#)). None of these decisions concerned the measures we examined though. To coordinate crisis responses, a new body called National Cabinet was convened in early March 2020, meeting several times a week. It comprised the prime minister, the state premiers and the chief ministers of the two self-governing territories. Its composition is different from the Council of Australian Governments (COAG) created in 1992 only in excluding the Australian Local Government Association. In June, the prime minister announced that National Cabinet would permanently replace COAG ([Australian Government 2020](#)).

At National Cabinet, the federal government and the states agreed to limit gatherings and events and to close restaurants. Because agreement was reached on the introduction of specific measures, we consider this to be coordination level 3. However, some states had already decided to impose restrictions on restaurants and all states closed non-essential shops on their own (coordination level 0). The

procurement of PPE and ventilators was coordinated, but not very closely (coordination level 1). For instance, the federal government ordered medical equipment and, upon request, distributed it to the states. But it did not discuss those purchases with them. Decisions on schools were not coordinated (coordination level 0).

In the second phase, measures were eased under a three-step “Roadmap to a COVIDSafe Australia,” which National Cabinet finalized on 8 May 2020. The Roadmap was no more than a recommendation (coordination level 2). The return to classroom teaching at (public) schools was not coordinated (coordination level 0).

Canada

Similar to Australia, emergency response is primarily a responsibility of the provinces in Canada ([Public Safety Canada 2011](#)). The provinces provide health care and education and regulate businesses ([Lecours 2019](#); [Migone 2020](#)). All provinces have emergency management and public health acts. The federal *Emergencies Act* of 1985, which can be activated if a disaster exceeds the capacities of the provinces (Section 3), grants the federal government vast powers to manage disasters—without specifying these, however. The federal government maintains a National Emergency Strategic Stockpile (NESS) from which the provinces can request supplies ([Public Health Agency of Canada 2019](#)). The provinces also maintain stockpiles (see [Reuters 2020](#)). Hence, procurement of PPE and ventilators is effectively a shared responsibility. Both levels of government can also procure vaccines ([Keelan 2008](#)).

The federal government, after consultation with the provinces ([CBC 2020](#)), decided not to invoke the *Emergencies Act*. Restrictions on gatherings and events, schools, restaurants, and non-essential shops were introduced by the provinces. Both levels of government procured PPE and ventilators ([Public Services and Procurement Canada 2021](#)). The federal government purchased vaccine ([Public Services and Procurement Canada 2020](#)). Most of these decisions were not coordinated. The decisions that were coordinated, during first ministers’ phone calls, concerned the procurement of medical supplies. Agreement was reached that the federal government would order in bulk on behalf of the provinces and distribute, upon their request, medical equipment from the NESS (level 3 coordination). Vertical coordination was complemented by horizontal coordination; Alberta provided PPE and ventilators to provinces in need (level 3 coordination). We did not find other evidence of horizontal coordination outputs (e.g., by the Council of the Federation).

Germany

In 2001, the German federal government adopted the *Infection Protection Act* (*Infektionsschutzgesetz*, IfSG) which regulates how infectious diseases are to be monitored and combated. Given the functional distribution of powers, the *Länder* execute the IfSG (Klafki and Kießling 2020). Via administrative decrees, they decide on the introduction, amendment, or lifting of specific measures. The IfSG allows the federal government to formulate recommendations. Consequently, it induces coordination but provides scope for *Länder* to determine their own actions. In regard to containment measures, the federal government is only responsible for the regulation of borders. Under the IfSG, the federal government can, unilaterally, regulate the supply of medical equipment.

To coordinate measures that the *Länder* implemented via their own administrative decrees, the long-standing Conference of the Premiers (*Ministerpräsidentenkonferenz*) (Hegele and Behnke 2017) was used to hold regular (weekly to monthly) meetings with the chancellor to coordinate measures which the *Länder* implemented via their own administrative decrees. After these meetings, agreements were published, and press conferences were held documenting the output of the coordination process. For all containment measures, there was a coordination output. The ban on events and gatherings as well as the closure of restaurants and shops (including their timing) were coordinated closely by the federal government and the *Länder* (coordination level 3). The easing of restrictions on events, gatherings, restaurants, and shops was coordinated in regard to the conditions and pace. But decisions on the timing and specific rules were made by each *Land* autonomously (coordination level 2). The closing and reopening of schools were also less closely coordinated. Through vertical and horizontal coordination, governments agreed on guidelines and optional measures; the concrete measures as well as their timing, though, were left to the *Länder* (coordination level 2). Decisions on the procurement of medical equipment were all coordinated, both vertically and horizontally. The federal government purchased supplies in consultation with the *Länder* (coordination level 1). The distribution of these supplies was arranged by an agreement among the *Länder* on a distribution key (coordination level 3). Germany decided to buy vaccines through an European Union-wide effort led by the European Commission (DAZ 2020). In 2017, the federal government had already coordinated procurement in the event of a pandemic with the *Länder* (Robert Koch Institut 2017) (coordination level 1).

Switzerland

The Swiss constitution assigns legislative power regarding communicable, widespread, or particularly dangerous human and animal diseases to the federal government (Article 118). In 2012, the federal government adopted the *Epidemics Act* (*Epidemiengesetz*, EpG). Under normal circumstances, the cantons implement

the EpG. If the situation worsens, the EpG distinguishes between a “particular situation” (Article 6) and, as the last resort, an “extraordinary situation” (Article 7). In a “particular situation,” when governments are no longer able to contain the spread of a disease or the World Health Organization declares an international health emergency, the federal government, after consulting the cantons, can impose containment measures. The cantons can decide on measures not regulated by the federal government. Switzerland found itself in a “particular situation” from 28 February to 15 March 2020 and again after 19 June. The federal government used its power to impose country-wide measures, some of which were coordinated with the cantons. The cantons introduced or relaxed measures that were not regulated by the federal government.

In an “extraordinary situation,” which it declared on 16 March, the federal government can introduce measures for the whole country or certain areas. The consultation requirement for the cantons no longer applies. Not only did the federal government introduce country-wide measures, in its strict definition of the law it also prohibited most deviations (also if they were stricter) by the cantons. After 19 June, the federal government announced that it would not declare an extraordinary situation again. The cantons were from then on responsible for introducing measures as long as and as far as the federal government did not make use of its right to issue country-wide regulations.

During the first “particular situation” some—though not all—measures were coordinated vertically. Once the federal government announced the extraordinary situation, coordination ceased completely. After the extraordinary situation was revoked, coordination did not resume immediately. Instead, parallel decision-making prevailed, meaning that some measures were taken by the federal government and others (or stricter measures) were adopted by the cantons. Overall, intergovernmental coordination regarding containment measures was the exception rather than the rule (coordination level 0). Procurement, on the other hand, was coordinated vertically. Governments agreed on the amount and distribution of PPE and ventilators (coordination level 3).

As [figure 3](#) shows, the distribution of coordination levels varied in the four federations. Coordination level 0 prevailed in Switzerland (70 percent) and Canada (64 percent). In Australia, 44 percent of the decisions were not coordinated. In Germany, there was not a single decision without a coordination output. In the latter two federations, there were a variety of coordination levels: 1 (agreement on policy objectives); 2 (optional policy instruments); and 3 (agreement on policy instruments and/or timing). In Germany, they each made up roughly a third of the cases. In Australia, levels 1 and 3 were more frequent than level 2. In Canada and Switzerland, there was no evidence of coordination levels 1 and 2. The only outputs in these two countries were about the agreement on policy instruments and/or their timing (level 3).

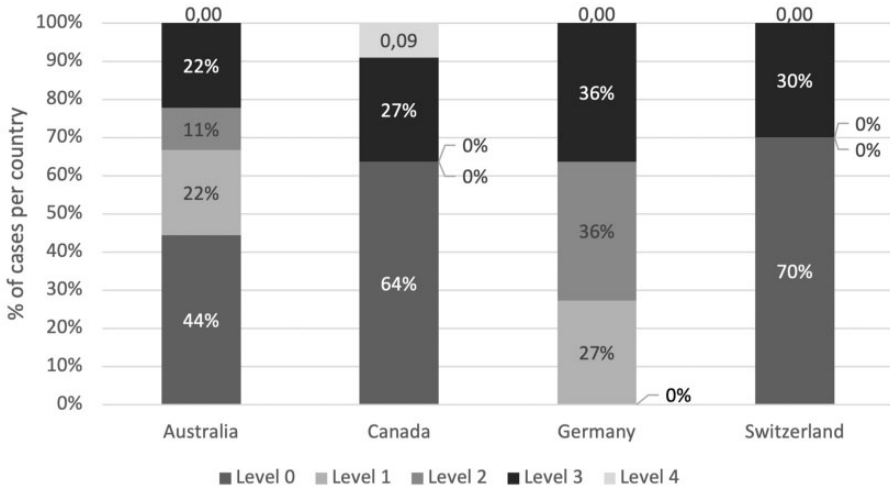


Figure 3 Distribution of coordination levels per country.

Those decisions that were coordinated were coordinated vertically in Australia and Switzerland, whereas in Canada and Germany coordination occurred horizontally and vertically (Figure 4).

Those two data descriptions indicate no clear pattern relating to geography or the number of constituent units, nor a clear divide between integrated and dual federations.

Intergovernmental Councils

We expected (E1a) that intergovernmental coordination occurs at a higher level if strong intergovernmental councils exist.

Australia's councils are generally regarded as failing to produce reliable intergovernmental interactions (Carroll and Head 2010; Collins 2015; Tiernan 2008). COAG—Australia's peak council under which several, periodically remodeled, ministerial councils operated—lacked formalization and was “simply the occasional summit meetings of first ministers from across Australia rather than an ‘institution’ in any meaningful sense” (Phillimore and Fenna 2017, 6). Meetings are “occasional and brief” (Phillimore and Fenna 2017, 7) and are called only when the Commonwealth seeks the states' cooperation to pursue its policies (Phillimore and Harwood 2015). Canada's council system fails to generate reliable coordination routines for similar reasons, despite attempts at more formalization (Simmons 2017; Bolleyer 2009). First Ministers' Meetings are convened at the pleasure of the federal government. Horizontal councils, such as the Council of the Federation, focus on position-taking rather than genuine intergovernmental

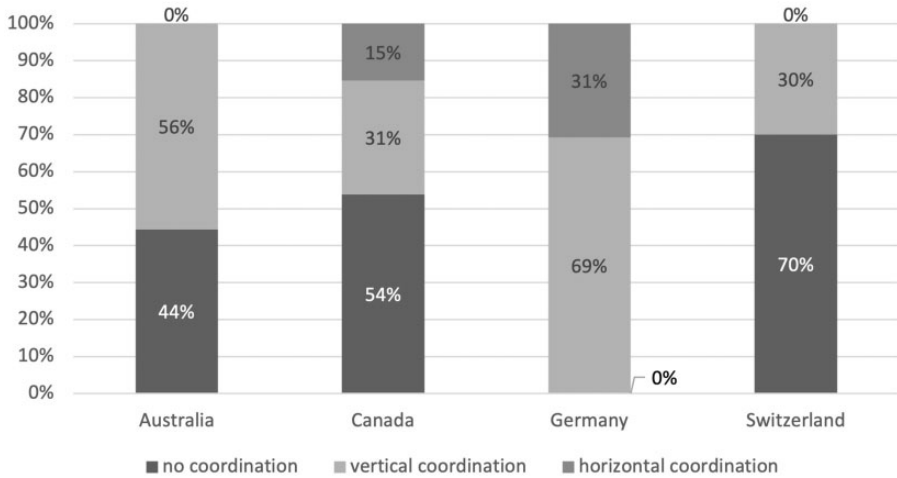


Figure 4 Coordination direction per country.

coordination. Consequently, all measures taken in those two countries belong to the category of weak intergovernmental councils.

Germany and Switzerland, in contrast, have strong council systems defined by a high degree of institutionalization (Hegele and Behnke 2017; Schnabel and Mueller 2017). The finding that Germany has “one of the most elaborate” (Hegele and Behnke 2017, 2) council systems also applies to Switzerland. Meetings of the Conference of Premiers (Germany), the Conference of Cantonal Governments (Switzerland), and the many policy-specific councils are part of the day-to-day operation of the federation. They occur frequently and are shaped by a high degree of formalization. Thus, measures taken in Germany and Switzerland belong to the category of strong intergovernmental councils.

Overall, however, we find similar patterns in federations with weak and strong councils (figure 5). Coordination levels 0 and 3 dominate. We find more coordination levels 1 and 2 in federations with strong councils than in countries with a weak council system though. In systems with weak councils, coordination did not occur, did not lead to an output, or was undertaken only when governments agreed on specific policy measures. This might be because agreement on policy objectives or policy options may not be considered worth a coordination output when councils are weak because each government decides on its own whether and how to implement policy discussed at a council meeting anyway. Another possible explanation is that councils that are highly institutionalized and follow formal rules of operation are also more likely to produce formal outputs regardless of their substance.

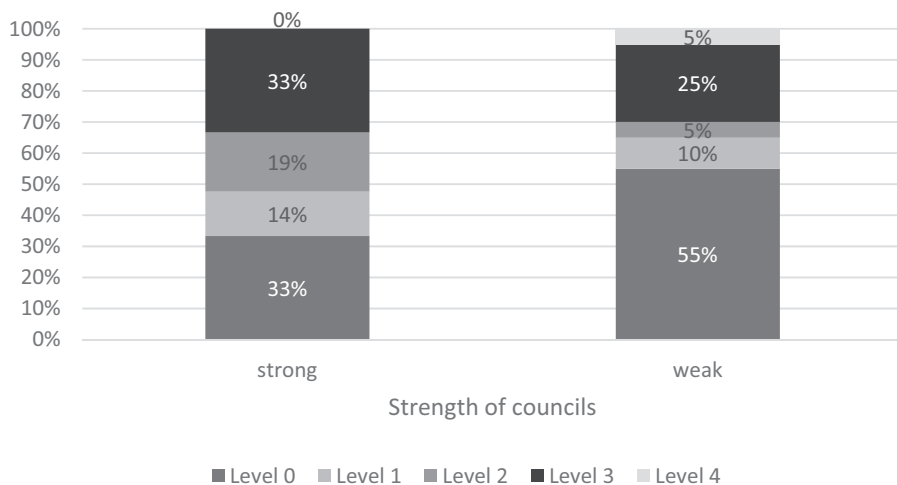


Figure 5 Coordination levels in federations with strong and weak intergovernmental councils.

Note: Strong councils exist in Germany and Switzerland, weak councils prevail in Australia and Canada.

We expected vertical coordination when vertical councils exist, while horizontal councils should increase the likelihood of horizontal coordination. Australia's councils are all vertical forums, meaning that the federal government and the constituent units participate (Phillimore and Fenna 2017). The federal government dominates these meetings (Phillimore and Fenna 2017; Schnabel 2020). Councils in Switzerland are all horizontal institutions—their membership does not include the federal government (Bochsler and Sciarini 2006; Schnabel and Mueller 2017). Canada and Germany each have a mixture of vertical and horizontal councils (Adam, Bergeron, and Bonnard 2015; Benz 2009a; Gauvin and Papillon 2020; Hegele and Behnke 2013).

As figure 6 shows, vertical coordination prevailed (56 percent) when councils were (mainly) vertical bodies. In those cases, there was little horizontal coordination, and often non-coordination (44 percent). In countries with only horizontal councils, there was no evidence of horizontal coordination, but a very high share of non-coordination (70 percent) and a moderate share of vertical coordination (30 percent). Systems with both horizontal and vertical councils had the lowest share of non-coordination (27 percent) and the highest share of horizontal coordination (23 percent). Vertical coordination makes up half of the cases (50 percent). Overall, it seems that, as we expected, vertical councils are associated with more vertical coordination. However, horizontal councils did not lead to more horizontal coordination; instead, non-coordination prevailed. Horizontal coordination occurred when both forms of councils existed. A closer

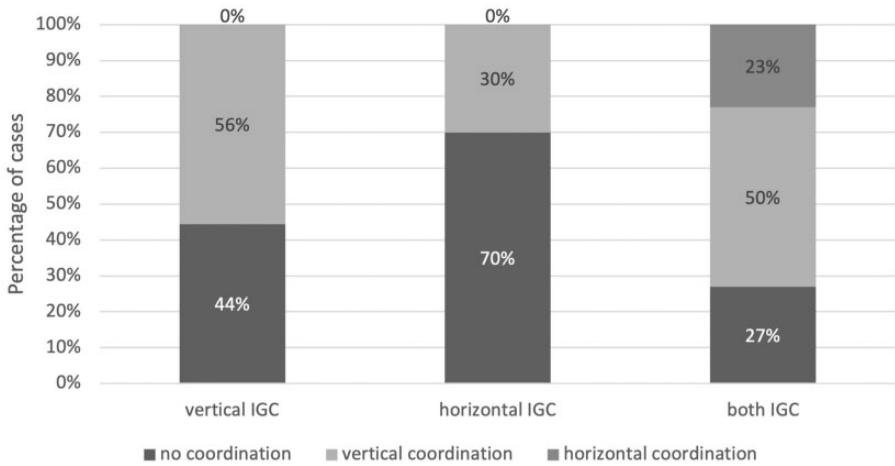


Figure 6 Direction of coordination and direction of intergovernmental councils (IGCs).

Note: Vertical councils predominate in Australia, horizontal councils in Switzerland. A mixture of vertical and horizontal councils can be found in Canada and Germany.

look at the original data reveals that horizontal coordination was often used to substantiate or implement vertical agreements.

Our analysis shows that the type of intergovernmental councils explains the form of intergovernmental coordination only partially. Vertical coordination prevails when only vertical councils exist. If both vertical and horizontal councils exist, both forms of coordination occur as well. Vertical coordination also prevails when horizontal councils exist. This finding is influenced by the unusual coordination pattern in Switzerland. The vertical coordination we observed in Switzerland—where the cantons coordinate closely and frequently in normal times—corresponds to the strong, and unusual, role the federal government assumed under the *Epidemics Act*.

Distribution of Powers

We expected to find non-coordination when the federal government has exclusive jurisdiction (E2a) and horizontal coordination when the constituent units have exclusive jurisdiction (E2b). We predicted vertical coordination if both levels of government share jurisdiction (E2c).

After the Swiss federal government declared an “extraordinary situation,” lockdown measures became an exclusive federal jurisdiction. The cantons were not allowed to pass measures that went beyond or deviated from federal measures—unless they obtained the federal government’s consent. During the “particular situation” both the federal and the cantonal governments could introduce measures (shared jurisdiction). In Australia, the federal government activated an

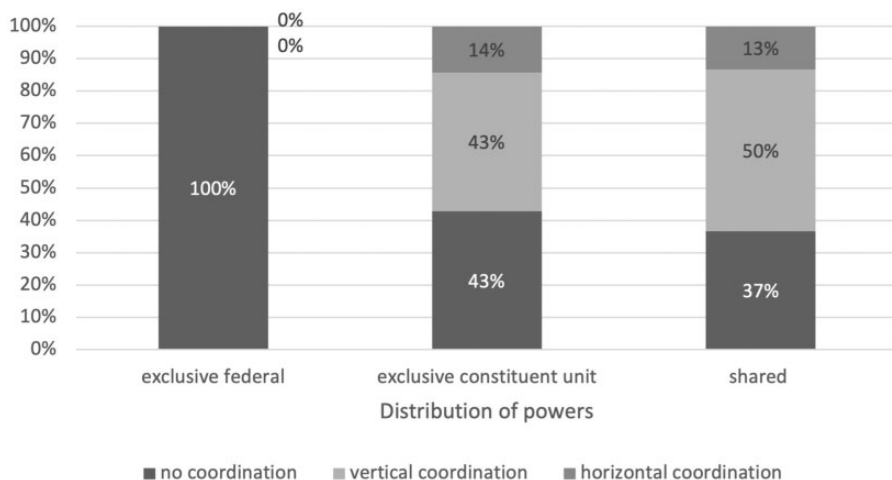


Figure 7 Coordination direction and distribution of powers.

Note: Exclusive federal jurisdiction = Switzerland (containment measures during ‘extraordinary situation’); exclusive constituent unit jurisdiction = Canada, Germany (containment measures); shared jurisdiction = Australia (all measures), Switzerland (containment measures during ‘particular situation’), procurement of PPE in all countries.

emergency law, the *Biosecurity Act 2015*, but did not adopt measures in areas for which the states are otherwise responsible. Because it has the authority to do so, containment measures can also be considered shared powers. In Germany, the *Infection Protection Act (Infektionsschutzgesetz)* assigns responsibility for containment measures to the constituent units; the federal government cannot activate an emergency act and decide on these measures. In Canada, the federal government has the authority to declare an emergency but chose not to. Hence, containment measures remained an exclusive constituent unit jurisdiction in Canada and Germany. The procurement of PPE, ventilators, and vaccine is a shared responsibility in all four countries (see above).

Our analysis confirms the expectation that intergovernmental coordination does not occur in areas of exclusive federal jurisdiction (figure 7). The patterns in regard to exclusive constituent and shared powers were about 40 percent non-coordination, about 45 percent vertical coordination, and around 15 percent horizontal coordination. The expectation that exclusive powers of the constituent units are more likely to trigger horizontal coordination is thus disconfirmed. In contrast to the expectation, coordination was mostly vertical, with only a few measures being coordinated horizontally.

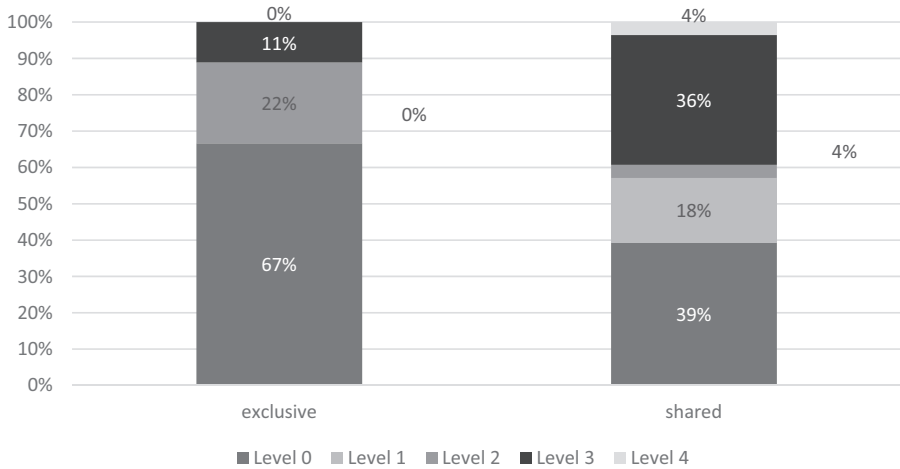


Figure 8 Coordination levels and distribution of powers.

Note: Exclusive jurisdiction = Switzerland (‘extraordinary situation’), Canada and Germany (containment measures); shared jurisdiction = Australia (all measures), Switzerland (containment measures during ‘particular situation’), procurement of PPE in all countries.

As [figure 8](#) shows, the expectation that higher levels of coordination are more likely when powers are shared (E2d) was confirmed. Coordination level 0 (non-coordination) prevailed if the federal government or the constituent units have exclusive jurisdiction (67 percent). As expected, shared powers lead to significantly higher levels of coordination: coordination level 1 or higher in 61 percent of the cases, of which coordination level 3 made up 36 percent.

Problem Pressure

We expected higher levels of intergovernmental coordination when problem pressure was high and lower coordination levels when problem pressure declined. The data confirm this expectation ([figure 9](#)). Lower problem pressure was associated with a high share of non-coordination (coordination level 0), namely 56 percent, but there was also coordination level 2, that is, agreements on optional policy instruments (22 percent). Under high problem pressure, 65 percent of the measures were coordinated, of which a large share were agreements on specific policy instruments and/or their timing (level 3, 43 percent). Thus, not only was coordination more likely under high problem pressure, but there were also higher levels of coordination. Under low-problem pressure, non-coordination or agreements on optional policy instruments were most common.

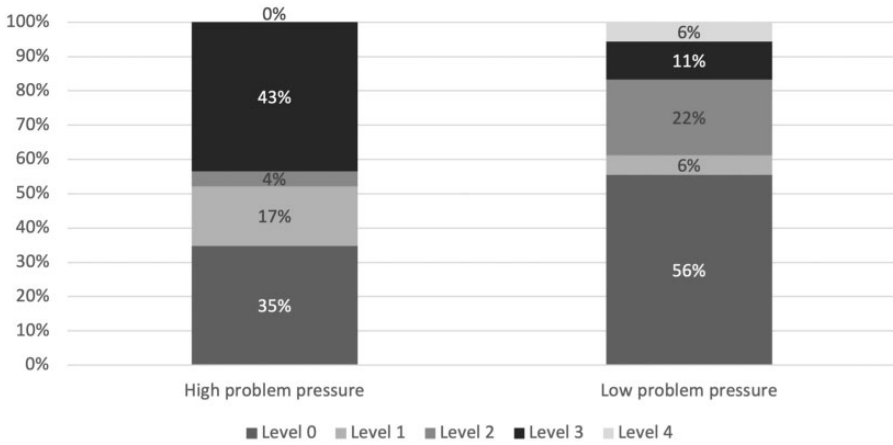


Figure 9 Coordination levels and problem pressure.

Note: High problem pressure = first phase (escalating infection rates); low problem pressure = second phase (declining infection rates).

Policy Type

Containment measures such as restrictions on gatherings and events are regulatory policy. Procurement measures are (re-)distributive policy. We expected to find higher levels of coordination for (re-)distributive policy and lower levels for regulatory policy (E4a and E4b). The data were consistent with these expectations (figure 10). In (re-)distributive policy, 60 percent of the cases were coordination level 3 or 4. In regulatory policy, 60 percent of the measures were not coordinated.

Discussion and Conclusion

Intergovernmental coordination is a prominent topic in federalism literature. Yet, we know surprisingly little about the factors under which intergovernmental coordination occurs. This article attempts to identify conditions under which governments coordinate. Analytically, the article provides a more nuanced conceptualization of intergovernmental coordination, defining coordination as an output. A coordination output is the most visible result of a coordination process and shows political commitment. The article postulates a number of factors that might be expected to influence the degree and direction of intergovernmental coordination and explores them empirically. Because of the explorative nature, there is no claim of comprehensiveness.

On the basis of the federalism literature, we expected that the existence of intergovernmental councils would affect the level and direction of

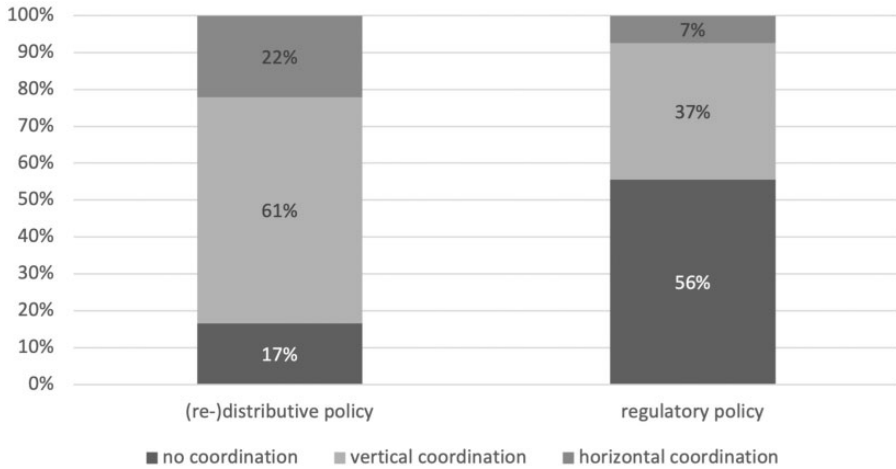


Figure 10 Coordination levels and policy type.

Note: (Re-)distributive policy = procurement; regulatory policy = containment measures.

intergovernmental coordination. Our analysis only partly supports this expectation (table 2). The existence of vertical councils led to vertical coordination, but horizontal councils did not generate more horizontal coordination. The strength of intergovernmental councils in normal times seems to have had little effect on the extent of intergovernmental coordination in times of crisis. We found similar patterns in federations with weak and strong councils. This is a surprising finding as it shows that federations with weaker councils are able to coordinate during crises.

Our expectations regarding the effect of the distribution of powers on the form of coordination were partially confirmed. Non-coordination prevailed if the federal government had exclusive powers and vertical coordination occurred if powers were shared. Shared powers also led to higher levels of coordination. In contrast to our expectation, vertical coordination (and not horizontal coordination) was more likely in instances of exclusive constituent unit jurisdiction. Thus, the constitutional allocation of powers shaped the behavior of political actors, but only to some extent.

Drawing on the policy literature, we expected problem pressure and the policy type to affect the extent of intergovernmental coordination. We found support for these expectations (table 2). Under high-problem pressure, coordination levels were higher than when problem pressure decreased. Furthermore, we found that (re-)distributive policies—in our case the procurement of medical supplies—were coordinated to a higher degree. Conversely, most decisions concerning regulatory policy, such as the closure of certain premises, were less closely coordinated.

Table 2. Overview of expectations and results

Expectation	Expectations	Results	Remarks
E1a	Strong councils → Higher coordination levels	✗	Mixed results
E1b	Vertical councils → Vertical coordination	✓	Non-coordination
	Horizontal councils → Horizontal coordination	✗	
E2a	Exclusive federal → Non-coordination	✓	
E2b	Exclusive constituent unit → Horizontal coordination	(✗)	Mainly vertical, little horizontal coordination
E2c	Shared jurisdiction → Vertical coordination	✓	Mostly vertical, some horizontal coordination
E2d	Shared jurisdiction → Higher levels of coordination	✓	
E3	Problem pressure → Higher levels of coordination	✓	
E4	(Re-)distributive policy → Higher levels of coordination	✓	

Our analysis gives no support to the assumption that there are different drivers for vertical and horizontal coordination during a crisis. Rather, our findings suggest that horizontal coordination complemented vertical coordination. The procurement of medical supplies in Germany and Canada are cases in point. In both countries, the decision to purchase equipment was coordinated vertically. The constituent units coordinated distribution (Germany) or shared equipment with other constituent units (Canada). As horizontal coordination was limited in the largest part to Germany, size and geography may be relevant factors. In large federations, such as Australia and Canada, horizontal coordination may not be needed or desired due to the larger distances between the constituent units, which reduce the likelihood of externalities. That we observe fewer instances of horizontal coordination compared with vertical coordination may also be a result of our selection of measures. There is evidence of coordination among (several) constituent units in other areas, for instance regarding domestic borders ([Deutsche Welle 2021](#)).

Although our analysis is based on four federations, it allows us to draw some general conclusions. Our findings show that intergovernmental coordination occurred in both dual (Australia and Canada) and integrated federations (Germany

and Switzerland). Thus, different types of federations are able to set up functioning coordination relations in a crisis when joint action and a consistent response are important. Yet, it is unclear if the coordination patterns we identified are specific to the COVID-19 crisis or apply to crises in general. It is reasonable to assume that the factors we identified as leading to closer intergovernmental coordination (shared powers, high problem pressure, and (re-)distributive policy) could be generalized. However, whether these factors also play an important role in non-crisis situations or in other types of federations (developing federations and quasi-federations), or in other types of crisis, remains an open question.

Further research is also needed on the factors impeding intergovernmental coordination, and on the extent to which they may undermine the circumstances we identify as leading to closer coordination. Power struggles between the levels of government, a conflict-laden political environment, or upcoming elections—some of which could be observed in federations, such as Brazil or the United States during the COVID-19 pandemic—can hinder smooth and functioning intergovernmental coordination during a crisis, with fatal consequences.

Supplementary Data

Supplementary data can be found at www.publius.oxfordjournals.org.

References

- Adam, Marc-Antoine, Josée Bergeron, and Marianne Bonnard. 2015. Intergovernmental relations in Canada: Competing visions and diverse dynamics. In *Intergovernmental relations in federal systems. Comparative structures and dynamics*, ed. J. Poirier, C. Saunders and J. Kincaid, 135–173. Don Mills: Oxford University Press.
- Australian Government. 2018. Emergency Response Plan for Communicable Disease Incidents of National Significance: National Arrangements (National CD Plan).
- . 2020. COAG Becomes National Cabinet, 02 June 2020. Available at https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2020/March/COVID-19_Biosecurity_Emergency_Declaration.
- Behnke, Nathalie. 2014. Organized Consensus: How Prime Ministers' Conferences and Bundesrat Sessions Make Multilevel Governance Work. Conference Paper.
- . 2018. Federal, devolved or decentralized state: On the territorial architecture of power. In *Handbook of territorial politics*, eds. K. Detterbeck and E. Hepburn, 30–44. Cheltenham, UK: Edward Elgar Publishing.
- Behnke, Nathalie, and Sean Mueller. 2017. The purpose of intergovernmental councils: A framework for analysis and comparison. *Regional & Federal Studies* 27 (5): 507–527.
- Benz, Arthur. 2009a. Intergovernmental Relations in German Federalism - Joint Decision-Making and the Dynamics of Horizontal Cooperation. Conference Paper.

- . 2009b. *Politik in Mehrebenensystemen*. Wiesbaden.
- . 2020. *Föderale Demokratie*. Baden-Baden: Nomos Verlagsgesellschaft.
- Blöchliger, Hansjörg, and Camila Vammalle. 2012. Reforming Fiscal Federalism and Local Government. *OECD Fiscal Federalism Studies*.
- Bochsler, Daniel. 2009. Neighbours or friends? When Swiss Cantonal governments cooperate with each other. *Regional & Federal Studies* 19 (3): 349–370.
- Bochsler, Daniel, and Pascal Sciarini. 2006. Konkordate und Regierungskonferenzen. Standbeine des horizontalen Föderalismus. *LeGes* 1: 23–41.
- Boin, Arjen, and Fredrik Bynander. 2016. Explaining success and failure in crisis coordination. *Geografiska Annaler: Series A, Physical Geography* 97 (1): 123–135.
- Bolleyer, Nicole. 2006. Federal dynamics in Canada, the United States, and Switzerland: How substates' internal organization affects intergovernmental relations. *Publius: The Journal of Federalism* 36 (4): 471–502.
- . 2009. *Intergovernmental cooperation. Rational Choices in Federal Systems and Beyond*. Oxford: Oxford University Press.
- Bolleyer, Nicole and Lori Thorlakson. 2012. Beyond decentralization—The comparative study of interdependence in federal systems. *Publius: The Journal of Federalism* 42 (4): 566–591.
- Bouckaert, Geert, B. Guy Peters, and Koen Verhoest. 2010. *The coordination of public sector organizations. Shifting patterns of public management*. Houndmills, Basingstoke, Hampshire, New York: Palgrave Macmillan.
- Braun, Dietmar. 2006. Between market-preserving federalism and intergovernmental coordination: The case of Australia. *Swiss Political Science Review* 12 (2): 1–36.
- Brenker, Stephanie. 2020. An Executive Grab for Power During COVID-19? AUSPUBLAW, May 13, 2020.
- Cameron, David. 2001. The structures of intergovernmental relations. *International Social Science Journal* 167: 1–7.
- Cameron, David, and Richard Simeon. 2002. Intergovernmental relations in Canada: The emergence of collaborative federalism. *Publius: The Journal of Federalism* 32 (2): 49–71.
- Carroll, Peter, and Brian Head. 2010. The Organisation and Management of Intergovernmental Relations: Change, Reform, or More of the Same? Refereed Paper Presented to the Public Policy Network Conference Hosted by the School of Government, University of Tasmania, Hobart, 28 January–29 January.
- CBC. 2020. Need for Emergencies Act Rejected by Premiers on Call with PM. CBC, April 10, 2020. Available at <https://www.cbc.ca/news/politics/emergencies-act-premiers-consensus-1.5529119>.
- Chouinard, Stéphanie. 2020. COVID-19 Crisis Sheds Light on Blind Spot of Canadian Federalism: Interprovincial Collaboration. IPolitics, April 9, 2020.

- Collins, Emmet. 2015. Alternate routes: Intergovernmental relations in Canada and Australia. *Canadian Public Administration/Administration Publique Du Canada* 58 (4): 1–22.
- DAZ. 2020. Keine Nationale Corona-Impfstoff-Beschaffung in Europa, August 21, 2020. Available at <https://www.deutsche-apotheker-zeitung.de/news/artikel/2020/08/21/keine-nationale-corona-impfstoff-beschaffung-in-europa>.
- Deutsche Welle. 2021. Coronavirus: Canada's Best-Kept Secret? The Atlantic Bubble, January 18, 2021. Available at <https://www.dw.com/en/coronavirus-canadas-best-kept-secret-the-atlantic-bubble/a-56269066>.
- Elazar, Daniel J. 1987. *Exploring federalism*. Tuscaloosa: University of Alabama Press.
- Faraj, Samer, and Yan Xiao. 2006. Coordination in fast-response organizations. *Management Science* 52 (8): 115–1169.
- Fenna, Alan. forthcoming. Australian Federalism and the COVID-19 Crisis. In *COVID-19 & Federalisms First Wave Response*, eds. R. Chattopadhyay, F. Knüpling, D. Chebenova, P. Gonzales, and L. Whittington. London & New York: Routledge.
- Filippov, Mikahil, Peter C. Ordeshook, and Olga Shvetsova. 2004. *Designing federalism: A theory of self-sustainable federal institutions*. Cambridge: Cambridge University Press.
- Füglister, Katharina. 2012. Where does learning take place? The role of intergovernmental cooperation in policy diffusion. *European Journal of Political Research* 51 (3): 316–349.
- Füglister, Katharina and Fabio Wasserfallen. 2014. Swiss federalism in a changing environment. *Comparative European Politics* 12: 404–421.
- Gauvin, Jean-Philippe. 2017. Les relations intergouvernementales et la coordination des politiques publiques au Canada: Entre relations formelles et informelles. PhD thesis. Université de Montréal.
- Gauvin, Jean-Philippe and Martin Papillon. 2020. Intergovernmental Relations in Canada: Still an Exclusive Club? In *Canadian Federalism and Its Future: Actors and Institutions at 150*, eds. Alain-G. Gagnon and Guy Laforest, 336–364. Montreal & Kingston: McGill-Queen's University Press.
- Hegele, Yvonne and Nathalie Behnke. 2013. Die Landesministerkonferenzen und der Bund—Kooperativer Föderalismus im Schatten der Politikverflechtung. *Politische Vierteljahresschrift* 54 (1): 21–49.
- . 2017. Horizontal coordination in cooperative federalism: The purpose of ministerial conferences in Germany. *Regional & Federal Studies* 27 (5): 529–548.
- Hueglin, Thomas O and Alan Fenna. 2015. *Comparative federalism: A systematic inquiry*. 2nd ed. Toronto: University of Toronto Press.
- Inwood, Gregory J., Carolyn M. Johns, and Patricia L. O'Reilly. 2011. Intergovernmental policy capacity in Canada. *Inside the worlds of finance, environment, trade, and health*. Montreal & Kingston: McGill Queen's University Press.

- Jensen, Mads Dagnis, Christel Koop, and Michaël Tatham. 2014. Coping with power dispersion? Autonomy, co-ordination and control in multilevel systems. *Journal of European Public Policy* 21 (November): 1237–1254.
- Keelan, Jennifer E. 2008. Concurrency in Public Health Governance: The Case of the National Immunization Strategy. Public Health. Special Series: The Role of Federalism in Protecting the Public's Health.
- Kennett, Steven A. 1998. Securing the Social Union. A Commentary on the Decentralized Approach. Institute of Intergovernmental Relations Research Paper 34.
- Kincaid, John, G. Alan Tarr, and Sonja Wälti. 2010. Federalism and the global financial crisis: Impacts and responses. Introduction. *L'Europe En Formation* 358 (4): 5–14.
- Knill, Christoph and Jale Tosun. 2020. *Public policy. A new introduction*. 2nd ed. London: Red Globe Press.
- Kropp, Sabine. 2010. *Kooperativer Föderalismus und Politikverflechtung*. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Lecours, André. 2019. Dynamic de/centralization in Canada, 1867–2010. *Publius: The Journal of Federalism* 49 (1): 57–83.
- Lecours, André and Daniel Béland. 2013. The institutional politics of territorial redistribution: Federalism and equalization policy in Australia and Canada. *Canadian Journal of Political Science/Revue Canadienne de Science Politique* 46 (1): 93–113.
- León, Sandra and Mónica Ferrín Pereira. 2011. Intergovernmental cooperation in a decentralised system: The sectoral conferences in Spain. *South European Society and Politics* 16 (4): 513–532.
- Lester, William and Daniel Krejci. 2007. Business 'Not' as usual: The national incident management system, federalism, and leadership. *Public Administration Review* 67 (1): 84–93.
- Lhotta, Roland and Julia von Blumenthal. 2015. Intergovernmental relations in the federal republic of Germany: Complex co-operation and party politics. In *Intergovernmental relations in federal systems. Comparative structures and dynamics*, eds. J. Poirier, C. Saunders, and J. Kincaid, 206–238. Don Mills: Oxford University Press.
- Lowi, Theodore J. 1972. Four systems of policy, politics, and choice. *Public Administration Review* 32 (4): 298–310.
- Migone, Andrea Riccardo. 2020. Trust, but customize: Federalism's impact on the Canadian COVID-19 response. *Policy and Society* 39 (3): 382–402.
- Nukpezah, Julius A. 2017. The financial and public health emergencies in Flint, Michigan: Crisis management and the American federalism. *Risk, Hazards & Crisis in Public Policy* 8 (4): 284–311.
- OECD. 2020a. *COVID-19 and fiscal relations across levels of government*. Paris: OECD Publishing.
- . 2020b. *The territorial impact of COVID-19: Managing the crisis across levels of government*. Paris: OECD Publishing.

- Painter, Martin. 1998. *Collaborative federalism. Economic reform in Australia in the 1990s*. Cambridge: Cambridge University Press.
- Palermo, Francesco. 2020. Is There a Space for Federalism in Times of Emergency? Verfblog. Available at <https://verfassungsblog.de/is-there-a-space-for-federalism-in-times-of-emergency/>.
- Paquet, Mireille, and Robert Schertzer. 2020. COVID-19 as a complex intergovernmental problem. *Canadian Journal of Political Science* 53: 343–347.
- Parker, Jeffrey. 2015. *Comparative federalism and intergovernmental agreements: Analyzing Australia, Canada, Germany, South Africa, Switzerland and the United States*. Abingdon, New York: Routledge.
- Parry, Richard. 2012. The civil service and intergovernmental relations in the post-devolution UK. *The British Journal of Politics & International Relations* 14 (2): 285–302.
- Peters, B. Guy. 1998. Managing horizontal government: The politics of co-ordination. *Publius: The Journal of Federalism* 17 (3): 1–17.
- . 2015. *Pursuing horizontal management. The politics of public sector coordination*. Lawrence: University Press of Kansas.
- Pfisterer, Thomas. 2015. Intergovernmental relations in Switzerland: An unfamiliar term for a necessary concept. In *Intergovernmental relations in federal systems. comparative structures and dynamics*, eds. J. Poirier, C. Saunders, and J. Kincaid, 379–410. Don Mills: Oxford University Press.
- Phillimore, John and Alan Fenna. 2017. Intergovernmental councils and centralization in Australian federalism. *Regional & Federal Studies* 27 (5): 597–621.
- Phillimore, John, and Harwood. Jeffrey 2015. Intergovernmental relations in Australia: Increasing engagement within a centralizing dynamic. In *Intergovernmental relations in federal systems. comparative structures and dynamics*, eds. J. Poirier, C. Saunders, and J. Kincaid, 42–80. Don Mills: Oxford University Press.
- Poirier, Johanne, and Cheryl Saunders. 2015a. Comparing Intergovernmental Relations in Federal Systems: An Introduction. In *Intergovernmental Relations in Federal Systems. Comparative Structures and Dynamics*, eds. J. Poirier, C. Saunders, and J. Kincaid, 1–13. Don Mills: Oxford University Press.
- . 2015b. Conclusion: Comparative Experiences of Intergovernmental Relations in Federal Systems. In *Intergovernmental Relations in Federal Systems. Comparative Structures and Dynamics*, ed. J. Poirier, C. Saunders, and J. Kincaid, 440–498. Don Mills: Oxford University Press.
- Poirier, Johanne, Saunders Cheryl, and Kincaid John, eds. 2015. *Intergovernmental Relations in Federal Systems. Comparative Structures and Dynamics*. Don Mills: Oxford University Press.
- Przeworski, Adam, and Henry Teune. 1970. *The logic of comparative social inquiry*. London, etc.: Wiley-Interscience.

- Public Health Agency of Canada. 2019. National Emergency Strategic Stockpile. Available at <https://www.canada.ca/en/public-health/services/emergency-preparedness-response-national-emergency-strategic-stockpile.html>.
- Public Safety Canada. 2011. National Emergency Response Capacity. Available at <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/ntnl-rspns-sstm/ntnl-rspns-sstm-eng.pdf>.
- Public Services and Procurement Canada. 2020. News Release: Government of Canada Signs New Agreements to Secure Additional Vaccine Candidate and Treatment for COVID-19, September 22, 2020. Available at <https://www.canada.ca/en/public-services-procurement/news/2020/09/government-of-canada-signs-new-agreements-to-secure-additional-vaccine-candidate-and-treatment-for-covid-19.html>.
- . 2021. Supplying Canada's Response to COVID-19. Available at <https://www.tpsgc-pwgsc.gc.ca/comm/aic-scr/provisions-supplies-eng.html>.
- Reuters. 2020. Exclusive: Millions of Masks Stockpiled in Canada's Ontario Expired before Coronavirus Hit. Reuters, March 9, 2020. Available at <https://www.reuters.com/article/us-health-coronavirus-canada-supplies-ex-idCAKBN20W2OG>.
- Riker, William H. 1964. *Federalism. Origin, operation, significance*. Boston: Little, Brown and Company.
- Robert Koch Institut. 2017. Nationaler Pandemieplan Teil I.
- Schnabel, Johanna. 2020. Managing interdependencies in federal systems. *Intergovernmental Councils and the Making of Public Policy*. Cham: Palgrave Macmillan.
- Schnabel, Johanna, and Sean Mueller. 2017. Vertical influence or horizontal coordination? The purpose of intergovernmental councils in Switzerland. *Regional & Federal Studies* 27 (5): 549–572.
- Simmons, Julie M. 2017. Canadian multilateral intergovernmental institutions and the limits of institutional innovation. *Regional & Federal Studies* 27 (5): 573–596.
- Thorlakson, Lori. 2003. Comparing federal institutions: Power and representation in six federations. *West European Politics* 26 (2): 1–22.
- Tiernan, Anne. 2008. The Council for the Australian Federation: A new structure of Australian Federalism. *Australian Journal of Public Administration* 67 (2): 122–134.
- Trench, Alan. 2006. Intergovernmental relations: In search of a theory. In *Territory, democracy and justice. regionalism and federalism in western democracies*, ed. Scott L. Greer, 224–256. Houndmills, Basingstoke, Hampshire, New York: Palgrave Macmillan.
- Vampa, Davide. 2020. The Territorial Politics of Coronavirus: Is This the Hour of Central Government? Democratic Audit UK, April 15, 2020. Available at <https://www.democraticaudit.com/2020/04/15/the-territorial-politics-of-coronavirus-is-this-the-hour-of-central-government/>.
- Wagner, Aiko and Sascha Kneip. 2020. Scope of the Outbreak or Institutional Veto Points: Explaining Varying Government Actions Against the Corona Pandemic. WZB Democracy Blog Available at <https://democracy.blog.wzb.eu/2020/08/13/scope-of-the-outbreak-or>

institutional-veto-points-explaining-varying-government-actions-against-the-corona-pandemic/.

- Wallner, Jennifer. 2014. *Learning to school. Federalism and public schooling in Canada*. Toronto: University of Toronto Press.
- Wanna, John, John Phillimore, Alan Fenna, and Jeffrey Harwood. 2009. Common Cause: Strengthening Australia's Cooperative Federalism. Final Report to the Council for the Australian Federation
- Wasserfallen, Fabio. 2015. The cooperative capacity of Swiss federalism. *Swiss Political Science Review* 21 (4): 538–555.
- Watts, Ronald L. 2003. Intergovernmental councils in federations. Constructive and cooperative federalism? *A Series of Commentaries on the Council of the Federation* 2: 1–9.
- . 2008. *Comparing federal systems*. Montreal & Kingston: McGill Queen's University Press.