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Balancing speed and coordination: Senior leaders' perspectives on civil service transformation during and after the pandemic

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ABSTRACT

How do governments' responses to crises change their civil services and shape their future reform agendas? We address this question by conducting interviews with sources that are hard to access but uniquely placed to answer these questions: heads of civil service and similarly senior officials from 14 countries across six continents, speaking during the waning phase of the Covid-19 pandemic. Senior leaders perceived the central challenge of managing the crisis phase of the pandemic as balancing two competing imperatives: greater speed, flexibility, and decentralization of decision making, but also greater coordination and collaboration across teams and sectors. This required bureaucracies to question their largely hierarchical coordination methods and to transition toward network-based coordination mechanisms, agile methods, and new leadership styles. Senior leaders perceived these changes largely as accelerations of existing reform directions rather than ruptures, and were trying a range of methods to sustain and institutionalize these crisis-induced changes.

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Introduction

Periods of crisis regularly trigger rapid transformations in civil services, as government bureaucracies have to adapt their structures, processes, and cultures almost overnight. Dozens of studies have examined the immediate impact of emergencies on public servants and organizations specialized on emergency policies and systems (Comfort et al. 2012), and especially focusing on local cases in the United States and Europe (e.g. Kapucu 2006; Waugh & Streib 2006; Christensen et al. 2015). More recently, a notable stream of research has comparatively examined short-term public health and policy responses to the global pandemic (e.g., Brauner et al. 2021; Béland et al. 2021; Hale et al. 2021; Zhang et al. 2023), or immediate bureaucratic responses to the Covid-19 pandemic focused on single countries (e.g., Christensen and Lægreid, 2020; Agostino et al. 2021; Moon, 2020). Yet there has been much less research on how crisis-induced bureaucratic changes shape governments' longer term public management transformations and reform craft (Boin and Lodge 2016; Dunlop et al. 2020), particularly from a global perspective (with Kuhlmann et al. 2021 as a notable exception).

We address this gap by conducting a set of semi-structured interviews with individuals who are uniquely placed to reflect on how their civil services reacted to a recent crisis situation: the

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heads of civil service (or other officials in similarly senior leadership positions) from fourteen countries across six continents who were in office during the Covid-19 pandemic. The global pandemic serves as a rich empirical setting within which to study bureaucratic responses to crisis and turbulence, and these senior officials were ideally placed to understand how they and their bureaucracies were affected by it. Understanding their subjective interpretations of what they learned from this experience is important, since these are what drive their decisions about future reform agendas.

Three key insights emerge from our interviews. First, the pandemic forced bureaucracies to respond to a *dual imperative*: to act more quickly and flexibly, and simultaneously to greatly increase the intensity and scope of horizontal collaboration and coordination across institutions and sectors. Moreover, there was a push to decentralize some types of decisions in order to act quickly, but this placed an even higher premium on communication and collaboration, all of which sat uneasily with traditional bureaucratic modes of operation.

Second, surmounting the dual imperative required civil services to transition to the more intensive use of network-based coordination mechanisms as opposed to the traditional hierarchies-based modes of coordination, and to adopt agile managerial approaches and non-traditional leadership practices to accompany them. All these changes typically emerged through a process of muddling through rather than grand reform design (Lindblom 1959), while also being largely consistent with pre-crisis reform thinking rather than entirely new directions. With respect to the much-discussed role of technology and digital tools during the crisis phase of the pandemic, the senior leaders we interviewed perceived that they were enablers rather than drivers of the changes described above.

Third, the managerial changes induced by addressing the dual imperative amount to a profound questioning of the structure and functioning of bureaucratic hierarchies and motivated the need to institutionalize them, especially the adoption of higher network coordination and flexibility and agile approaches in the future. Furthermore, senior leaders are mainly trying to sustain these changes through specific personnel management reforms, including training policies focused on strengthening continuous learning and digital and soft skills, more proactive and deliberate planning, and performance appraisal processes driven by civil servants' career development opportunities.

Methodologically, investigating these questions *via* interviews with a relatively small number of senior leaders from a wide range of countries has both strengths and limitations. We collect and analyze our interview data with a focus on the subjective perceptions and experiences of heads of civil services (although we also triangulate our interview data against secondary sources and existing literature where possible), which are not necessarily representative of all public servants within their countries. Still, the perspectives of senior leaders like heads of civil services are important not because they are statistically representative but because they are the views of one of the most important decision makers within each country's civil service. In this sense, our paper is an example of the type of interpretative, phenomenological research that Ospina et al. (2018) note is comparatively rare in public administration. To our knowledge, ours is the first paper to interview such a large number of apex civil servants across multiple countries and continents about the impact of the pandemic on reform trajectories, and we are aware of few other studies on any topic in public administration that have managed to conduct in-depth interviews with such senior and difficult-to-access bureaucratic leaders.

The remainder of the article proceeds as follows. We first situate our study with respect to the existing bodies of literature on how bureaucracies change during and after periods of crisis and turbulence. After laying out our empirical methodology, we then present our findings in two main empirical sections: on the dual imperative of greater coordination and the need for speed and flexibility in the context of the pandemic; and how this experience shaped senior leaders' views on the future agenda for reform. We conclude with brief reflections on the implications of our findings for scholars and practitioners.



Theory and evidence on bureaucratic responses to crises

In this section, we review the state of the existing literature on two related areas: 1) how bureaucracies respond and adapt during periods of crisis and turbulence; and 2) how these short-term reactions affect longer-term, post-emergency reform trajectories. These two sub-sections correspond to the two main empirical sections of our paper.

Before proceeding, a brief conceptual and technological note is warranted. While both "crisis" and "turbulence" have been widely used to refer to the Covid-19 pandemic in academic and popular literature alike, there are important conceptual distinctions between these terms that are often elided. Whereas crisis refers to an acute, short-term, often time-bound situation that marks an abrupt (but possibly temporary) departure from the status quo (Boin and 't Hart 2003; Gundel 2005; Pearson and Clair 1998; Sætren et al. 2024), turbulence refers to a longer-term condition or state in which "events, demands and support interact and change in highly variable, inconsistent, unexpected or unpredictable ways" (Ansell and Trondal 2018:44-45).

The Covid-19 pandemic was thus both a crisis and a period of turbulence; or, perhaps most appropriately, a crisis that inaugurated a period of turbulence which in turn generated additional crisis moments.1 Our analytical focus and empirical data focus not on the initial emergency response to the pandemic, but on the period afterwards, and thus combine elements both of crisis and turbulence. For the sake of simplicity and brevity, in the remainder of the paper we generally use the term crisis in its more colloquial sense to refer to our study period as a whole.

Short-term responses: Coordination, adaptation, and leadership

Many empirical studies on public management adaptations to crises focus on immediate reactions, in particular by specialized emergency response agencies (e.g., Kapucu 2006; Jaeger et al. 2007; Waugh & Streib 2006). This pattern also applies to much of the stream of public administration research on the Covid-19 pandemic (e.g., Christensen and Lægreid, 2020; Agostino et al. 2021; Moon 2020). The crisis management literature also makes a distinction between strategic and operational levels of decision making; we focus mainly on the former. A number of important findings and themes emerge from this literature. One relevant factor determining the effectiveness of responses to crises is governments' ability to use intra- and inter-organizational coordination mechanisms to achieve desired outcomes (Drabek 1985; Comfort and Kapucu 2006; Zhong et al. 2022). These outcomes tend to be more multilaterally defined during transboundary crises, as the issues and challenges transcend agencies' specific policy arenas (Boin and Lodge 2016; Ansell et al. 2010; Rittel and Webber 1973).

The emergency management literature distinguishes two main different coordination mechanisms (Drabek and McEntire 2003). Hierarchy-driven coordination involves the use of instrumental authority, centralization, and clear-cut chains of command and control, responsibilities, and lines of accountability (Hood 2005; Peters 2018). Network-based coordination, on the other hand, entails mutual interdependence and trust among actors, and may emerge spontaneously among organizations (Peters 2018; Verhoest et al. 2007). Various empirical studies have highlighted the importance both of hierarchies (e.g., Bouckaert et al. 2020; Lie 2011), and networks (e.g., Caruson and MacManus 2006; Kapucu 2005) as coordination mechanism during emergency responses. More recently, a growing body of research has explored the idea of hybrid coordination, which combines the top-down authority-based method with processes that are more horizontal and relationship-based (e.g., Bardach 2017; Christensen et al. 2016; Zhong et al. 2022). But while there is consensus on the importance of coordination during crisis response, there is less agreement about how to balance or integrate both modes of coordination.

The existing literature has also recognized that governments might need different internal management practices to operate during crises (Boin and 't Hart 2010; Comfort 2007). In particular, in contrast to the traditionally hierarchical styles of many public institutions, effectively responding to crises may require more flexible, agile, decentralized, and informal managerial approaches (Ansell and Trondal 2018). A range of existing studies also suggest that technology and digital tools could be used during emergencies to inform managerial and policy decision making, to continue delivering public services, to assist with information sharing and transparency, to inform and engage citizens, and to strengthen communication and coordination (Kapucu 2006; Jaeger et al. 2007; Agostino et al. 2021; Roseth et al. 2021). Conversely, specific crises such as natural disasters or cyber-attacks can render these tools ineffective or at the center of crisis-induced disruption themselves.

Finally, the disrupted organizational and institutional environments that characterize emergency response situations can also require new practices, mindset, and skills from leaders (Waugh & Streib 2006; Kapucu and Van Wart 2008; Van der Wal 2020; Ansell et al. 2021). As Boin and 't Hart (2003,546) put it: "[w]hether they like it or not, crisis management has become a leadership issue". Management research, for instance, has consistently underscored the strong influence of leaders' styles and approaches on subordinates' working experiences during the Covid-19 pandemic in both the private sector (Bolino et al. 2024) and the public sector (e.g., Shand et al. 2023; Salehi et al. 2023), especially in the context of remote work (Park et al. 2023; Gómez et al. 2022; Fuenzalida et al. 2022).

Longer-term learning: Tensions and tradeoffs in reform

Crises such as natural disasters, conflict and violent incidents, human-caused accidents, and health emergencies place extraordinary demands upon the civil service. Governments need to continue offering public goods and services to citizens under disrupted operational scenarios, and some face even more or new service demands induced by the crisis (e.g., Pizarro et al. 2022). Crises trigger disturbances that regularly turn into turbulent governance and management scenarios "characterized by surprising, inconsistent, and uncertain events" (Ansell et al. 2021:949). Turbulence, as Ansell and Trondal (2018,47) point out, has the distinctive feature of pushing public organizations and leaders to "make rather difficult trade-offs, pulling them in contradictory, even paradoxical, directions". However, only a few studies have specifically inquired into how these tradeoffs produced by turbulences emerge in the public service or the strategies governments use to manage them (e.g., Masters & 'thart 2012; Li et al. 2022).

One of the main dilemmas in deciding on longer-term reforms that is highlighted in existing literature is the stability-adaptation tension (Ansell and Trondal 2018), a close relative of the crisis-reform thesis (Boin and 't Hart 2003). On one hand, crises and turbulence create the prospect of substantial policy and bureaucratic transformations (Kingdon 1984). Such scenarios change rapidly, inconsistently, and unpredictably and thus public organizations seek to accomplish their goals by adapting their structures and operations to match the new, crisis-imposed environmental conditions (Thompson 1967). The bureaucratic adaptations motivated by this mismatch between the demands of changing conditions and bureaucratic ability to address them involve calling into question those preexistent managerial policies and practices that are no longer effective. Furthermore, bureaucratic crisis responses that were intended to be temporary may be adopted into routine organizational practices since a restoration of the normal managerial practices and policies from the old equilibrium may be neither possible nor desirable for public leaders (Ansell et al. 2021).

At the same time, turbulent environments and crises can also be forces for stability, as public organizations and leaders desire quick returns to normality. In contexts where speed is crucial and levels of scrutiny are high, turbulence could thus paradoxically help reinforce path-dependency by pushing organizations to reproduce solutions from their existing repertoire that they perceive as effective (Weick 1998). The tendency toward stability may also be exacerbated by the institutional, organizational, and individual inertia that frequently preclude the success of post-crisis reform efforts (Boin and 't Hart 2003). Which of these forces – stability or adaptation, embarking on a new path or returning to the status quo – predominates is an empirical question that can vary across contexts.

To the extent that public leaders do pursue bureaucratic changes and reform after periods of crises, they may choose to do so either through a series of gradual policy changes (Lindblom 1959) or through the more disjunct style of change that characterizes "punctuated equilibria" (Baumgartner and Jones 1993). Bureaucratic transformation and reform might also follow a pattern of "institutional syncretism", falling somewhere between incremental moderate changes and dramatic episodic transformations (Ansell and Trondal 2018) in a process that involves repurposing, remaking, or recombining existing managerial policies and practices in dynamic and improvizational ways.

The existing literature thus highlights a number of distinct and potentially contradictory ways in which public institutions and the individuals who lead them might choose to sustain, deepen, or roll back short-term bureaucratic adaptations to crisis situations. It is thus important to understand the strategic thinking behind these decisions, and how they relate to pre-crisis reform efforts and thinking. These issues are the focus of our study.

Methods and interview sample

Interview recruitment methodology and sample details

This paper mainly uses primary data collected through semi-structured interviews with heads of civil services or similarly senior leaders around the world conducted between August 2021 and March 2022. Interviewees were identified and contacted via a combination of the authors' networks, snowballing, and cold outreach, with special effort toward obtaining a sample that was as global and representative as possible (Appendix A provides further details about the sampling and selection process). In parallel, we draw on secondary data from extensive desk research on grey literature and governmental reports to inform and complement the analysis of our primary data collection. Our research design, data collection, and analysis integrate many of the good practices for conducting qualitative research in public administration proposed by Ospina et al. (2018).

The final sample of interviewees is constituted of 14 heads of civil services or other senior leaders from countries on the six continents (Table 1). Figure 1 highlights in red the countries of provenance of our interviewees. They are Ghana and Uganda on the African continent; Uruguay, Argentina, Brazil, Peru, Colombia and Chile in South America; the United States in North America; Singapore and Qatar in Asia; the United Kingdom and Spain in Europe; and Australia.

This is the first study to interview senior leadership-level public servants across multiple countries and continents about the mid- to long-term impacts of the Covid-19 pandemic on bureaucracies and their reforms. Our choice of methodological approach responds to two main gaps in the academic and policy literature. First, by targeting high-level public officials, we obtain valuable and unique primary data. It is rare for studies to be able to interview this many highly placed officials, particularly including respondents from low- and middle-income countries that are traditionally underrepresented in public administration research (Bertelli et al. 2020). While our sample of countries is not globally representative, it nonetheless represents the largest and most diverse collection of countries for which such interviews have been conducted, and thus the closest picture to date of global thinking on pandemic-related reform efforts. Second, our study's focus on the medium- to long-term time horizon (rather than on the immediate

Table 1. Respondents by role type.

Respondents' role type	Number of respondents	
Heads of Civil Service (e.g., Minister, Secretary, Chief Officer)	9	
Directors of sub-units within the civil service	2	
Senior officials responsible for people management	2	
Head of national public administration school	1	

Source: Authors



Figure 1. Countries included in sample. Source: Authors

reaction to the initial phase of the pandemic) complements other research conducted on how the pandemic has affected civil services worldwide (e.g., Schuster et al. 2020) by giving leaders time to reflect on which aspects of these emergency responses were most important and are likely to persist. It also allows us to draw on newly released secondary data and government documents to contextualize officials' interview responses and complement the qualitative results of the primary data collection.

While examining the perceptions of senior leaders thus has its advantages, it also entails obvious limitations. The first is the relatively small sample of very senior leaders it is possible for any one study to reach, and the risk that it may not be fully representative of the whole world. While our study includes a larger number of such senior officials from a broader range of countries than we are aware of in existing studies, this is nonetheless a limitation. A second key challenge of relying on senior leaders' perceptions is that leaders themselves may have biased or inaccurate views or may omit certain information in order to paint a more positive picture of their civil services. We can address this to some extent by analyzing interview responses with a critical lens and triangulating them against other secondary literature, but our ability to do so is obviously limited. Finally, the fact that interviews were conducted while the pandemic was still ongoing may also limit the completeness or objectivity of leaders' reflections and responses.

That said, the perspectives of the senior leadership of countries' civil services matter not because they are objective or statistically representative of the rest of the civil service, but because they are the views of the most important decision-maker(s) within it. We therefore treat our interview data mainly as potentially subjective perceptions rather than unbiased facts, while emphasizing that these perceptions and interpretations themselves are meaningful because they guide the actions of the influential individuals who hold them.

Structure, conduct, and analysis of interviews

Interviews lasted approximately one hour, conducted by two or three interviewers and with a semi-structured interview protocol indicating the main themes and topics sent to the participants in advance. The two main themes/sections were: 1) challenges that civil services were tackling due to Covid-19 and how governments were responding to them, including questions on technological adoption, workplace rearrangement, and management practices; and 2) issues and

opportunities of the mainstreaming of Covid-19-related changes and the implications for civil services in the mid-to-long-term term future (approximately the next five years). Appendix B contains the full interview protocol.

We used multiple coding to help us analyze, interpret and systematize the qualitative data, following a conventional content analysis (Barbour 2001; Hsieh and Shannon 2005) - see Appendix C for further detail. Codes were then iteratively updated as analysis and writing progressed. Our coding was a starting point for our identification of major patterns and trends in the interview data, but our subsequent analysis, reporting, and discussion uses the content of these interviews in a qualitative fashion that allows us to take greater advantage of the nuances and depth of this data than would be permitted by a rigid reliance on our coding and categorization alone. This is consistent with our primarily interpretative approach to our analysis (c.f. Ospina et al. 2018). Our reporting and analysis below are thus based on our synthesis of these interviews, with selected quotations and examples included for illustrative and expository purposes.

The dual imperative: Speed and flexibility, and effective coordination and collaboration

Interviewees unanimously agreed that the crisis response phase of the pandemic forced their bureaucracies to dramatically increase their intensity and scope of collaboration, entailing a vast expansion of interactions both among public organizations and with their private and civic counterparts. The number and diversity of actors involved in these coordination efforts, some of them unexpected, involved new challenges and required new methods for coordination and management. At the same time, the response to the pandemic required an unprecedented level of speed and responsiveness to the "shifting parameters" of the crisis (Ansell & Trondal 2018). In particular, our interviewees suggested that the environment in which civil services operated had been changing rapidly, and that Covid-19 only accelerated this change.

Interviewees stated that their bureaucracies tended to respond to this by carefully decentralizing and delegating an increasing number of decisions internally. This also led senior leaders to question and sometimes try to remake traditional hierarchical modes of decision making. "It is really important that we think carefully about where decisions need to be made within organizations. What sorts of things need to be made kind of in a whole of government, standardized way; versus where can we allow flexibility and allow decisions to be made at a lower level in the organization?" (US interview). This decentralization of decision making was often implemented through informal staff empowerment initiatives, such as joint brainstorming for solutions, within existing structures and procedural frameworks. In Ghana, for instance: "I have encouraged my colleagues to do the same thing [write their ideas for change]. So every three months, we ask what new have you produced here? And we need to formalize some of these things." (Ghana interview).

Senior civil servants thus perceived that managing these two simultaneous imperatives effective coordination and collaboration on the one hand and speed and decentralization on the other - proved the central dilemma of the turbulent environment produced by the pandemic crisis. As one interviewee explained, "Our public service over the past 20 months had to orchestrate and put together many multi-agency operations. We had to, almost overnight, get agencies to pool resources, irrespective of organizational boundaries and some of the protocols we have in place. We have to override many of these things just to quickly respond to the crisis." (Singapore interview). Leaders were thus confronted with a difficult tradeoff: whether to prioritize time-intensive consultation and coordination across teams and organizations at the expense of speed and responsiveness to local information, or vice versa.

Hybrid coordination mechanisms to address the dual imperative

Across all countries, senior leaders emphasized that the tradeoff of speed and flexibility versus effective collaboration was handled mainly by using hybrid coordination mechanisms involving a more intensive use of networks (as opposed to traditional hierarchies). Countries thus adopted institutional mechanisms to strengthen network coordination at the operational and strategic levels, including: setting up ad hoc cross-sectoral taskforces and advisory boards; alignment of information-related processes across organizations, particularly via IT and data sharing and use; and the intensification of whole-of-government approaches to inform coordination efforts. In Australia and Colombia, for instance, consultative processes that linked a range of civil servants and political leaders more closely, such as transversal teams, were put in place to determine policy trajectories, especially related to remote work. While similar mechanisms already existed to some extent in all countries, the pandemic saw an expansion and intensification of their use. "One of the good things of the pandemic is that it forced us to do things that always were very hard to implement, such as database interoperability, sharing information between the different agencies and working in a collaborative manner, when the organizational tradition usually leads to jurisdictions solely looking at themselves." (Argentina interview). Furthermore, the same interviewee suggested that this expansion in the usage of network coordination mechanisms required or was enabled by specific leadership abilities: "These abilities (to work with coordinating teams) are more difficult to acquire. It is like you have them or you do not have them. So it is important to work on them in the people that do not have them." (Argentina interview).

This transition was not easy as it challenged established bureaucratic structures and hierarchical coordination mechanisms. A key challenge civil services encountered in doing this was the ambiguity and misalignment of goals across different stakeholders and information management processes, which had to be addressed head-on for these structures and processes to function effectively. As one senior leader explained, "I don't have the straight answers to this yet but we are definitely thinking deeply about because when you talk about matrix organizations, it has to do with aligning incentive structures, aligning the recognition and rewards, and these are not trivial questions." (Singapore Interview).

However, the shift to less hierarchical and centralized forms of decision-making was far from wholesale. Preexisting hierarchical structures also sometimes led to skepticism: "My manager supports collaborating to get work done, right. Well, only 60% [of employees] say yes to that, so we clearly haven't done a great job at promoting people who think that way when partnering and working outside their organizational silos, and I think this is a really good opportunity to change that." (US Interview). The quest for inter-organizational collaboration could also strengthen centrally driven coordination mechanisms: "We actually are able to engage at the leadership level and across organizational boundaries more effectively sometimes when we're dealing with kind of a crisis situation. So I think making sure that we've empowered the center of government to lead coordination for these sorts of issues. It's been a really important thing to be sure that we are coordinating a whole of government response." (US interview).

Other bureaucratic adaptations to deal with the dual imperative: Agile approaches and new leadership practices

Senior leaders also discussed other ways to surmount this tradeoff of speed versus coordination, critically reflecting on their managerial and leadership styles and reinterpreting their governments' digital transformation processes.

First, many civil services addressed this dual imperative by trying to adopt agile approaches, in the broad sense of "...a new package of routines and processes embedded within formal work groups and structures" (Mergel et al. 2021:161). But while all governments' responses to the crisis required improvised but organized actions, not all such actions were necessarily agile in this specific sense. They, indeed, might correspond to similar ways to manage crises, such as the pragmatic approach suggested by Ansell & Boin (2019). Still, a significant subset of such actions were driven by the main agile principles and approaches alike, especially the use of quickly developed stepwise innovations, continuous change in response to rapid feedback, iterative processes, and multidisciplinary teams (Mergel et al. 2021; Janssen and van der Voort 2020;

Ansell & Boin 2019). Many bureaucracies that had previously started to consider agility began to experiment with them tentatively by placing a higher premium on rapid communication, enhancing feedback mechanisms, and broadening the scope of individual jobs and working routines. For example, one interviewee explained: "I think one of the things that this pandemic has taught us is that the likelihood that you are going to get it right the first time is low. You need to acknowledge that it is a fluid situation, that we are learning new things all the time, and that we are going to be committed to iterating and adapting and adjusting our policies and our routines based on how things are playing out on the ground." (US interview).

A clear illustration of the use of agile approaches is how civil services adopted remote work, which both enabled previously unthinkable practices but were also constrained by existing culture. For example, one interviewee explained: "I think that is powerful as a new way of working [across silos and rigid routines]...it has always been there, but until virtual became the default kind of way of working, it didn't nearly take the potential that I think it's going to hold going forward." (US interview). Another recalled, "I remember we had to write from the hotel rooms, work on circulars where we started these flexible working hours, deciding quickly. It was like doing and learning at the same time because we had never had anything like that." (Ghana interview). In addition, civil services attempted to meet a demand for rapid response and faster service delivery by adopting modular work arrangements and facilitating human resources mobility. Thus, in Australia, "Another big challenge was around mobility, basically the Prime Minister asked to allow workers to move [around] and have support staff...we would use other staff quickly so they work in service delivery faster." (Australia interview).

At the same time, these changes were not wholly successful. One interviewee lamented how they were undermined by preexisting norms: "This has to do with a cultural theme, this harmful culture in which, when you go home on time, you are suspected not to work or produce enough. So, not having this direct control of people made continuing remote work really challenging in some institutions because there is a lack of trust." (Peru interview). And in several countries, particularly low- and middle-income ones, basic connectivity and IT infrastructure issues also hampered effective operations and the adoption of agile methods in the context of remote work.

More importantly, agile practices' adoption during the pandemic led senior leaders to think critically about what types of managerial approaches were needed to address contemporary and future policy problems. "Things change very fast and not only due to Covid-19. Even three-year plans don't work anymore. You can only plan annually, and you focus on outcomes and then you rebase yourself, adapt, change and move." (Qatar interview). This urge for change embodies the transformational nature of the agile approach that, as noted by Mergel et al. (2021:163), is "... a mindset that initiates a cultural change in bureaucratic command and control organizations [and thus] "...[a]gile administrations are open to reforms, adaptation to the changing environment, public values, and public needs."

Second, managing the changes and challenges induced by dual imperative also required interviewees to adapt and perceive their leadership styles in new ways. Our interviewees perceived that not only did the pandemic induce changes in work routines and processes but also in the meaning of good leadership within the public service. Leaders had to rely more on transformative, inclusive, and compassionate -rather than transactional- leadership practices (Kuhnert and Lewis 1987, Dutton et al. 2014, Randel et al. 2018), especially because of the new demands for agility as well as because remote work imposed practical limitations on their ability to monitor staff. While this was partly driven by necessity, for many leaders, it was also a strategic choice because it encouraged the creation of more inclusive communications routines, greater decision-making autonomy, and moving away from rigid pre-pandemic personnel evaluation metrics. "Rather than a controlling leadership that focuses on whether the person is sitting [at their desk] or not, we need more seductive and motivating leaders, especially since we have a new generation that has different objectives." (Chile interview). This new leadership style also has to encompass a greater concern for individual welfare, which came under greater stress than ever: "The head of civil service himself is asking every leader to adopt a system of prioritizing and looking into the workload of our public officers. We are at this point even convening what we call learning circles where senior leaders at the Permanent Secretary and CEO levels come together to share personal experiences about coping with their own mental health, about how they think about self-care or how they are supporting the mental health of our own workforce." (Singapore Interview). There was thus a broad recognition of the importance of leadership capability and development.

Third, all our interviewees agreed that digital tools had played an essential role in how their bureaucracies addressed the dual imperative and adapted to the pandemic. But these senior leaders were also clear that they viewed technology and digital transformation processes in government as enabling rather than driving changes to increase the coordination and collaboration or the speed and flexibility in civil services. Indeed, interviewees perceived the most fundamental transformations undergone during the pandemic to be the types of coordination-related changes to organizational processes, people management, and leadership discussed above - not the greater use of technology itself. For example, one interviewee remarked: "I do think this ability to partner with different groups is really a potentially transformational change that is enabled more going forward. I think the need to get together physically has been such a limiting factor in whom we partner with and how we work, that if we move to a more virtual way of working, it creates huge opportunities for how we work with different partner organizations." (US interview) Another reflected: "If you would have told me that I had to assemble a new unit with six new senior team leaders of 300 people, and I had to have done that virtually, I would have said no, that is not possible because of everything I know about leadership: you know, we need to be in the same space, we need to do this, we need to do that. But I did do it." (United Kingdom interview). In addition, technology also sometimes enabled an easing of formal restrictions and acceleration of bureaucratic processes through such steps as replacing the requirement for formal signatures and stamps on documents with email correspondences (Peru interview). This represents an important nuance to narratives about digital transformation in civil services worldwide: whereas much existing commentary has focused mainly on the digital tools themselves, in our interviews senior leaders mainly emphasized the changes to management practices that these tools made possible.

Impacts on future reform agendas

What, then, do senior civil service leaders see as key elements of the reform agenda after their countries' responses to the most acute phase of the pandemic crisis? While there is naturally a significant amount of idiosyncratic variation across countries in the specific changes and tools envisioned, two common threads emerged. First, most interviewees were broadly positive about the greater use of network-based coordination and agile approaches and expressed an interest in sustaining, deepening, and institutionalizing them. Second, senior leaders also envisioned updating their personnel management policies to respond to the demands of these new approaches.

With respect to the first thread, the senior leaders we interviewed report their overriding priority emerging from the pandemic as being how to sustain both the increased scope of network coordination and collaboration, and the greater degree of agility that emerged. As one interviewee reflected: "And this responsiveness is not given as civil services normally are not very nimble and agile by design. It is basically how to ensure that whatever civil services structure you have, or systems you have, could become an agile and nimble tab of systems and operators and workers in order for them to be able to move fast? That is the design principles that we are working on currently to re-engineer our civil services." (Qatar interview). Some civil services have even started to take action to carryover the use of agile methods. For instance, the US federal civil service has increased its use of rapid "pulse surveys" as a critical mechanism being put in place to "regularly adjust and adapt policies based on feedback", particularly with respect to the transition into more stable and longer-term forms of remote or hybrid working (US interview).

Yet, sustaining the use of network coordination and agile approaches in civil services is far from straightforward and requires changing both de facto and de jure practices: "It is all difficult and it is all interlinked actually. In the end, it is about changing culture, which is really hard to do. Even if you have the leadership to make these changes, once you get down into the middle layers, you have a lot of civil servants, public servants articulated in similar blocks inside each organization, and they are very comfortable with the way they are doing things." (Australia interview). Also, as reflected by senior service leaders, continuing these transformations over time entails "... a deeper question of do we need to more fundamentally look at our governance structures? How do you look at decision rights, and you know, how do we organize ourselves to be ready for the future?" (Singapore interview).

A second consistent thread of senior leaders' thinking about future reforms was a push for changes in personnel management to complement this shift toward network-based coordination, flexibility, and agility. This was often expressed by senior leaders as a critical reflection on their current civil services' learning opportunities and a search for ways to institutionalize the ideal of ongoing skill development on particular skills. As one interviewee explained: "People learn absolutely loads as individual and teams, but did we consciously take the time to? You know, discuss what people had learned and then apply that into a continuously improving and self-improving organization? Possibly not." (UK interview). Another reflected: "Do we provide continuous learning and continuous upgrading of skills that allow public services staff to stay capable? That's one of the things that we are very focused on." (Australia interview). And another explained: "The area I mentioned is really HR workforce and I mentioned about democratizing all the learning and development opportunities and we are mounting this in really a big way. So we are looking at how we tier some of these development opportunities: short-term emergent programs that last for weeks, geek projects that last for months, interagency work, secondments to agencies 1-2 years, and we are also trying to open up more channels for public officers should be attached out to the private sector so that we make sure we learn from also the best in class companies in terms of practices, innovation, agility and bring these lessons back to the public service... We want to make sure that these opportunities are not just the privilege of those on the talent schemes or administrative service, but for every single public officer." (Singapore Interview).

With respect to the content of such training, interviewees all included digital skills (both basic and advanced) within the set of competencies that urgently need to be better integrated into training curricula, but many also spoke about soft skills. This dual focus was perhaps best encapsulated by our interviewee from Singapore, who explained that: "We have set up what we call a digital academy. This was a work in progress, but the pandemic accelerated things. A lot of the courses that the digital academy has developed and co-created with many of the leaders are because we really want to harness the best in class in terms of the latest knowledge and skills in AI, in data science, in digital, in data analytics and bring it back and adapt it for the context. At the basic level, there are mandatory data literacy, and cybersecurity courses that every single public officer has to go for. Then, we are also looking at tiering, and thinking about how to build up a tier of future leaders who would be our digital leaders of tomorrow." (Singapore interview). At the same time, the perceived new needs extend far beyond specifically digital skills: "The challenge is that technology and the operating context is changing so fast, many jobs are evolving, are being made obsolete. The question is how, as an employer, do we establish a good system of soft skills, identification skills, development and also institute a sort of mental agility in our workforce? One where you can have a long public service career, but you might not stay in one organization for like 10-20 years counting. You can have a long career in public service in different jobs and gaining different sort of experiences and skills and pivoting along the way." (Singapore interview). This focus on the combination of flexibility, new modes of leadership, and digital skills echoes the transformations of the pandemic era described above, which many leaders have taken as a lesson for the future.

Beyond skills development, many senior leaders also highlighted the processes of strategic personnel planning and appraisal as key areas for change in the coming years. For instance, one interviewee stated that: "We need to do a lot more deliberate planning so that everyone has the benefit of the skills, the knowledge, the networks to be effective in situations like that; a lot of our work on apprenticeships, on induction, on the fast stream, on leadership development, is informed by that sort of crisis response; and intervening much earlier in career pathways so that you're not having to remedially give people procedural knowledge and domain knowledge." (United Kingdom interview). Another expressed the view that: "HR needs to dedicate itself to new edges, that are consequences of the pandemic, for instance creating [a] manual of different functions at new levels of competencies...Understand that there are new skills in the working world, that there are new careers, that we need to change the manuals of functions because now we need to have an expert in data reading. This is not contemplated in the current manuals of functions, such as the experts in cybersecurity, and the expert in blockchain. So necessarily, entities need to revoke the old manuals, revoke their human resources structures." (Colombia Interview). And another remarked: "Mobility is the tough one, we have talent that leave below the senior officers, so we're trying to think about how we do that bit differently. In terms of our senior executive service, we are now looking quite seriously how we move people around the system, not for mobility's sake but for their development's sake. Also for successful planning of the officers and for the system sake, to make sure the right people are in the right job at the right time. So it is quite complex, lots of different moving parts." (Australia interview). Several interviewees also remarked that the agility they sought to create during their pandemic responses - and now seek to sustain and deepen - sat uneasily with their rigid staff evaluation processes, highlighting a future need for staff appraisal and evaluation processes that are more focused on identifying development opportunities and new competence areas (e.g., Brazil, Chile, Uruguay interviews).

Conclusion

In this article, we have detailed how senior leaders of civil services worldwide adapted to the difficulties imposed by governments' emergency response to COVID-19, a particular episode of crisis and turbulence. They underscore that the central challenge of managing civil services' responses to the pandemic was balancing two competing imperatives: greater speed, flexibility, and decentralization of decision making on the one hand, and greater coordination and collaboration on the other. This led them to make a range of bureaucratic adaptations, many of which revolved around the common theme of questioning and remaking the traditionally hierarchical structures and norms of their institutions in order to move toward more network-driven coordination and agile practices. However, senior leaders perceived this more as a continuation or acceleration of pre-pandemic incremental changes rather than as something totally new, and digital technologies were seen as crucial enablers rather than drivers of these changes. Institutionalizing and deepening these changes is now at the top of the agenda for each of the senior leaders we interviewed.

Of course, the degree to which civil services are successful at implementing these envisioned reforms and achieving the desired changes is an open question. Our interviews took place between August 2021 and March 2022, when the transition from the acute phase of the pandemic crisis had only just begun or, in some countries, was only in the planning stage. Similarly, the specific reforms pursued and prioritized by different countries will doubtless be different.

But what the perspectives of the senior leaders we interviewed emphasize is the sense of urgency that the response to the pandemic crisis imbued for transforming operational and personnel management in civil services worldwide. While many (if not most) of the envisioned reforms are not new *per se*, leaders all drew a direct line between the lessons they learned from responding to the emergency and their approach to envisioning the future of their institutions in a post-crisis world. Contrary to much of the existing literature's emphasis on stability versus

adaptation as the key theoretical question for post-crisis reform, we found that leaders' post-pandemic reform thinking was driven neither by a desire to return to the pre-crisis status quo nor by totally novel ideas, but rather by an acceleration of pre-crisis ideas influenced by the learning experience of the crisis reaction.

To our knowledge, this is the first academic study to investigate the experiences, perceptions, and interpretations of very senior civil servants across multiple countries and continents about the medium- and long-term impacts of the Covid-19 pandemic on their bureaucracies and their reform agendas. It thus builds on previous studies that have inquired public leaders' perspectives about the pandemic in single countries (Wilson, 2020), and that are primarily based on secondary information such as administrative or survey data (Forster and Heinzel 2021; Glenn et al. 2021). While our sample of countries is not globally representative, it nonetheless represents the largest and most diverse collection of countries for which interviews with senior leaders have been conducted, and thus the closest picture to date of global thinking on mid-to long effects of the Covid-19 crisis on bureaucracies and future reforms.

More broadly, we hope that our article illustrates the value of taking an interpretative approach to studying not just what happened during the pandemic or other crisis situations, but also how civil servants interpret and make meaning of these experiences. These interpretations are intrinsically important for scholars to understand because they shape retrospective learning and prospective thinking about future situations. They are thus a crucial part of modeling and predicting bureaucratic behavior, and - when the individuals in question sit at the apex of entire civil services - for understanding the frontier of reform efforts in countries around the world.

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Appendix A. Interviewee recruitment

The selection of countries participating in the study followed an overarching criterion: Heads of Civil Service were targeted based on the authors' academic and professional networks. In order to obtain a more diverse sample of countries, three additional selection criteria were considered: 1) geographical representation, aiming to expand territorial coverage to developing and developed countries on all continents; 2) an intentional overrepresentation of developing countries to minimize the lack of data publicly available; 3) other additional diversity criteria such as cultural influences on bureaucracies, size of bureaucracies, and systems of government (federal vs. non-federal).

Once the countries were selected, 18 countries were contacted. The research team first sent formal invites for an interview via email to the 8 Heads of Civil Service we were able to contact without the support of intermediaries. Subsequently, the research team sent formal invites for another 10 Heads of Civil Service with the support of intermediaries at the [academic institution conducting the study] (faculty, researchers, and doctoral students). In cases in which Heads of Civil Service were not available, we used snowball sampling for targeting and asked them to connect us with their direct subordinate or the person they considered would be better able to answer our questions. With a formal acceptance from the Head of Civil Service or other officials, the research team sent an interview protocol and a consent form to be signed by the interviewee prior to the interview via videocall.

A total of 14 interviews were conducted between August 2021 and March 2022. When interviews were held in languages other than English, the University of Oxford's Language Center translated the transcript into English. Some quotations were lightly edited for clarity or grammar in order to improve readability, just in cases where this could be done without affecting meaning.

Appendix B. Semi-structured interview protocol

The general interview guidelines that were sent to interviewees prior to the interviews are available below:

Thank you for taking the time to participate in this interview. This interview is part of a multi-country study being conducted by the [academic institution] on how civil services are responding to the challenges posed by the COVID-19 pandemic. The study aims to understand the needs, challenges, and responses of civil services around the world in this crucial period, and the findings will be used for research and policy recommendations to governments in facing novel challenges to the public sector in the future.

Topic 1: Challenges and responses to the COVID-19 pandemic

Objective: Explore the challenges civil services are facing due to the Covid-19 pandemic; how they are responding to them via technological adoptions, workplace rearrangements, and management practices; and how their responses are affecting employee learning, well-being, and performance.

- 1. Main lessons learned so far in responding to the challenges posed by COVID-19 to the civil service.
- Major challenges posed by COVID-19 on civil service's functions and performance

- 3. COVID-19 effects on public employees' wellbeing, motivation, performance and organizational learning.
- Changes on technology adoption, workplace rearrangements, and management practices.

Topic 2: People management challenges in the mid-term

Objective: Explore the issues concerning the mainstreaming of COVID-19 related reforms and the mid-term challenges facing civil services.

- From changes adopted as a response to COVID-19 challenges, the most likely to be mainstreamed.
- Main challenges on people management for the next five years. 2..

Appendix C. Coding process

Coding took place in two main stages:

- Multiple coding of all over 50% of the qualitative data, meaning two team members coded one transcript independently and then compared their codes and the coding frames. One member of the authorship team first coded all the interviews, while seven others participated coding one transcript. Thus, the codes and the coding frames were adjusted as a result of the seven bilateral meetings held.
- The codes and the coding frames were presented and discussed with the research team in two subsequent meetings.

The analysis of the data took place in a collaborative way through discussion groups and team meetings to discuss the coding system and the data available. The main criteria used to determine the themes and subthemes were:

- The number of mentions in the interviews. To minimize coding bias and harmonize interpretations, the same data was shared among the team members and then discussed. This technique helped to reduce the interpretation bias of each team member by trying to find a common ground.
- Juxtaposing interview data against the extant theoretical and empirical literature on relevant topics in public administration and related fields, in order to ground the discussions in existing literature while also identifying points of novelty or disjuncture.

The extended coding frame extracted from the first coding exercise available below provides examples of the themes and sub-themes that were coded from the data. Among the main themes were government collaboration and collaboration, digitalization and leadership and new management practices.

This coding process guided the identification of key themes, which were later used to elaborate the analysis of each theme and structure the article.

Figure C1. Coding frame.

Code Name	Files	References
Digitalization and remote work benefits (unintended)	14	148
Engagement & Collaboration	11	28
Decentralization	12	25
Inclusivity	11	25
Concrete well-being measures	8	21
Working arrangements	4	6
Training and evaluating more people	7	18
Cost reduction	7	14
Better service delivery	6	11
Time-management	4	8
Mobility	5	8
Better information management	3	6
Reducing corruption	1	2
Government collaboration with different sectors	11	36
Intersectorial collaboration	9	23
Public-private partnership	5	9
Contractors and IT professionals	2	2
Intrasectorial collaboration	5	12
Associations and syndicates	6	8

Code Name	Files	References
Performance & Productivity	6	8
Continuity	5	6
Output reduction	3	4
Higher performance	1	3
Unproductive work Changes to be maintained in the future	2 1	2 3
Hybrid-flexible work	13	63
Technology prevalence and digitalization	14	53
Better management practices	11	47
Feedback mechanisms	8	24
Incentive-motivation structures	8	17
Duty	11	24
Communications	12	23
Money	4	6
Purpose	3	3
Safety	2 12	2
Employees' well-being policies New workers profiles	9	28 26
Reshaping traditional working methods	13	49
New recruitment processes	12	22
New skills	6	19
Democratization of the tasks	6	18
New evaluation processes	6	15
Shorter work contracts	3	5
Higher education	3	4
Workplace and departments rearrangement	9	17
Resources management	5	11
New Leadership	7	10
Leaders' supervision importance	13	55 22
Transmit and create trust	11 4	23 8
Receive clear orientations and training Focus on mission	4	8 7
Future challenges of public sector	1	1
Adapting to change-innovation	12	72
Training	13	43
Attract and retain talent, motivation	11	34
Mindsdet (cultural) change	11	27
New rules and regulations	5	11
Resilience	1	1
Regular Communication with employees and	10	27
stakeholders	-	22
Flexible working Finding new evaluation methods	5 4	22 16
Need for IT investment	9	16
Aligning service delivery to citizens' need	3	9
Balancing Ambition Business and Covid (ABC)	2	7
Need for clearer responsibilities	4	6
Key lessons	0	0
Developing adaptability and agility	14	75
Leadership and HR importance	14	70
Integrating well-being programs	4	7
Trust and transparency importance	14	66
Transparent communication	12	36
Cooperation Modernization and reshaping needed	12 10	60 60
Developing efficiency and speed	13	52
Whole of government approach possible	10	46
Acceleration of existing dynamics-Impetus	12	38
Need for new regulations	5	36
Need for inclusivity & empathy	9	32
Institutional learning crucial	11	27
Technological learning	14	42
Online Training	5	7
E-reporting	2	2
Online evaluation processes	2	2
Tax adjustments to allow more IT use Autonomy needed	1 4	1 8
Autonomy needed	7	o

Code Name	Files	References
Difficulties related to COVID-19	0	0
Well-being	10	26
Health and safety	11	26
Isolation	8	15
Personal and worklife balance	11	22
Alignment between different agencies	9	22
Ill-defined roles and responsibilities	9	20
Communications issues	11	19
Lack of regulations	6	17
Lack of infrastructures	6	16
Transforming tradi knowledge	5	14
Discrepancy between policymaking and realities on the ground	5	11
Financial costs	4	11
Cultural habits clashes	6	11
Multidimensionality	7	11
Reduction of workforce	8	9
Measuring productivity	3	4