

Article

# Thanks, but No Thanks: Preferences towards Teleworking Colleagues in Public Organizations

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## Abstract

Over the last decades, one of the most significant changes in the workplaces of government agencies around the world has been the introduction of telework. The relatively scant public administration research on this innovation and on its semantic or substantive variations such as telecommuting, home-work, remote work, and smart work has examined its effects on teleworkers and only recently on non-teleworkers. However, scholars have overlooked the relational dynamics triggered by telework. This is the focus of our study. We start by connecting telework with specific features of public bureaucracies, such as control, modularity, and the separation of professional and personal life. Next, we explore through a mixed-methods design a relational dynamic overlooked by previous studies, that is, the preferences of non-teleworkers towards teleworking colleagues and the motives behind them. Results from a discrete choice experiment with over 1,000 non-teleworking public employees revealed a remarkably strong preference toward non-teleworkers. A qualitative follow-up based on semi-structured interviews found the workplace collective as the locus of the tensions caused by telework and illuminated critical issues perceived by non-teleworkers, ensuring a more fine-grained understanding of the impacts of flexible work arrangements on the functioning of public organizations.

## Introduction

In recent decades, one of the most significant changes in the workplace has been the introduction of telework, which can be defined as an alternative arrangement

whereby, through the use of information and communication technologies (ICTs), employees work physically away from their usual workplace. Used interchangeably with similar terms—such as telecommuting, home-work, remote work, and smart work<sup>1</sup>—telework

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<sup>1</sup> These terms are often employed as synonyms, although we are aware they may connote slightly different arrangements or perspectives on the conduct of work. In particular, remote work implies that civil servants work (and live) outside of the geographic area of the public agency's office. Telecommuting is typically considered only a place-based option, while telework provides both workplace and time flexibility (Kwon and Jeon 2017). Last, differently from the other terms, smart work emphasizes the fluidity of work irrespective of its location and has been defined as the “deployment of the creative mix of emerging technologies and innovation in the public sector” (Gil-Garcia et al. 2014, 12).

allows employees to perform their tasks outside the conventional location of an office, shifting the emphasis from where they are to what they do (Baruch 2001). Telework also alters the temporal configuration of work in public organizations and enables both synchronous and asynchronous activities (Kwon and Jeon 2017).

Owing to this flexibility, telework has been included in the rubric of family-friendly policies for public employees (Lee and Hong 2011). Exploring whether and to what extent telework supports employees faced with simultaneous demands of work, family, and personal time has led scholars to focus predominantly on the effects of this innovation on the teleworkers themselves (Caillier 2012; Lee and Hong 2011; de Vries et al. 2019). However, we know very little about the impacts of telework on the rest of the organization. Only a few studies in public administration have enlarged the scope of the analysis to include non-teleworking colleagues, assessing the effects of their aspirations to become teleworkers and of their actual opportunities to do so (Choi 2018; Lee and Kim 2018; Mahler 2012). What remains to be explored is the attitude of non-teleworking colleagues towards teleworkers. We may infer the possibility of friction, but we don't know how non-teleworkers regard the opportunity to work with colleagues who are physically away, or at least not always there. This is exactly the focus of our paper. Three decades after teleworking was introduced in the public sector, we think it is time to ascertain the preferences of non-teleworkers towards their teleworking colleagues, and to explore systematically what lies behind those preferences.

We addressed these questions through a mixed-methods design (Mele and Belardinelli 2019) in the empirical setting of a large local government in Italy, one that pioneered telework and continues to provide employees with this option. The design was set up as a sequential mixed method, consisting of a discrete choice experiment aimed at ascertaining the preferences towards teleworkers, followed by a series of semi-structured interviews of a purposeful sample of the participants in our experiment, in order to explain those preferences.

Our results advance the understanding of workplace dynamics altered by the introduction of telework in public organizations by focusing on a specific relational dimension, that between public employees and their teleworking colleagues. We demonstrate empirically, rather than assume, that coworkers prefer non-teleworking rather than teleworking colleagues. All else being equal, the experimental data show that the odds of being preferred as a prospective colleague are remarkably lower for teleworking candidates compared to their non-teleworking counterparts. In

contrast to the expectations set by public administration research, which employed social exchange theory (Bae et al. 2019; Caillier 2012, 2013; Choi 2018; Lee and Kim 2018; Mahler 2012), our evidence indicates that this is the case even in a public organization where remote arrangements are fairly successful and broadly accessible, thus supporting the need to explore inductively the reasons behind these preferences.

The insights gained through the qualitative analysis uncovered a specific effect that we labeled "permanent estrangement" that may help to explain why a schedule that alternates a worker's remote and physical presence in the office does not mitigate adequately the isolation of teleworkers in public organizations.

The inner view of non-teleworkers revealed specific effects of remote arrangements on the whole workplace collective in public organizations. One negative impact of telework is on the overall performance of the office, not due to lower productivity of civil servants (Bae and Goodman 2014; Kwon and Jeon 2017) but rather to the tension between the flexibility of the telework arrangement and the inflexibility of the bureaucratic tasks in a public office. Teleworking staff may enjoy more freedom in selecting their location and even their schedule but, as a consequence, the office as a whole may struggle to deal with unexpected occurrences or decisions requiring a high degree of administrative discretion (Hupe and Hill 2007; Maynard-Moody and Musheno 2000; Thomann et al. 2018). As a second effect, we found that the lower accessibility of staff members and the difficulties of engaging in informal communication hamper collective learning that, in the words of one informant is "crystallized." Discerning this effect enriches our understanding of the structural and cultural elements that may hinder organizational learning in public agencies, beyond professional boundaries, functional boundaries, and centralized power structure (Moynihan and Landuyt 2009; Rashman et al. 2009). Third, our evidence shows that, contrary to studies on the effects of ICTs (Feeney and Welch 2016; Fusi and Feeney 2018; Li and Feeney 2014; Welch and Feeney 2014), standardized tasks are considered more compatible with telework than non-routine tasks. However, our informants did not deem such stand-alone tasks to be suitable for the activities performed by their agency, hinting at a strong ambivalence in their perception of telework and questioning the narrative on the inevitable commodification of labor and fragmentation of tasks in modern public organizations. Fourth, while the main focus of studies on remote arrangements in public administration focused on the threat of family intrusion into the professional sphere (Bruce and Reed 1994; Saltzstein et al. 2001) the analysis of our interviews raises the concern that the physical absence of teleworking colleagues may

erode the social component of the workplace experience for those public employees who remain in the office, ultimately altering their work-family balance.

We submit that these findings, elaborated at length in the final discussion, have significant practical implications for policymakers and managers. The corrective measures we suggest revolve around two principles: a focus on the workplace collective as a whole and the integration of teleworkers into the office, including *while* they are working remotely.

The paper proceeds as follows: we develop the theoretical framework of our research, connecting telework with specific features of public bureaucracies, such as control, modularity, and professional devotion; and reviewing the ontological and practical concerns about this innovation highlighted by previous studies. Next, we account for the research strategy, introducing the empirical context and describing our mixed methods' design. Then, we present the results of our experiment, complemented by the qualitative follow-up. In the final section, we discuss the findings and their contribution to the theorization of telework in public administration; we point to the limitations of our study and to an agenda for future research and, last, we articulate its practical implications.

## Theoretical Positioning

### Telework in Public Organizations

Along with other innovations broadly referred to as electronic government, telework offers researchers the opportunity to explore the interplay between socio-technical changes and public administration functioning (Hood 2000; Welch and Pandey 2007). While acknowledging that ICTs are its enablers, conventional conceptualizations of telework emphasize its implications for the spatial and temporal aspects of the conduct of work in public bureaucracies (Taskin and Edwards 2007).

Telework in the public sector usually has been portrayed as an innovation to address crucial problems of modern workplaces. It is proposed as a means to enhance work-life balance (Feeney and Stritch 2019; Lee and Hong 2011) that, together with other family-friendly policies, has evolved in response to the whole spectrum of demographic changes. Initially deployed in government agencies to facilitate female emancipation and "double income couples" (Bruce and Reed 1994), telework has lost its characterization as a children-centered policy and has targeted young workers and unmarried employees, as well as households without children (Kim and Wiggins 2011). Furthermore, telework has been associated with sustainable urban mobility and climate protection, by having employees drive less and by reducing office space and

the environmental footprint of government buildings (Choi 2020). Differently from other technological innovations (Mele et al. 2014), the adoption of telework has not been considered particularly controversial among policymakers. The positive valence attributed to telework (Jacobson 2017) is reflected in the recommendations of international organizations, such as the European Union, the International Labor Organization (Eurofound and ILO 2017) and the Organization for Economic Cooperation and Development (OECD 2016), and in the efforts of governments around the world to promote its adoption. At the same time, concerns about this workplace innovation have emerged; in the following section, we account for the strands of research that have problematized telework and have highlighted some of its inherent contradictions.

### Ontological Concerns: Telework and Public Bureaucracies

The way in which telework interacts with specific attributes of public bureaucracies has attracted some concerns. On the one hand, new forms of work that rely on ICTs alter the unity of space, time, and action and may challenge the traditional forms of management control in public administration, specifically, hierarchical oversight (Hood 1995) and monitoring employees *in situ* and *de visu*, that is, based on their physical presence and visibility (Taskin and Edwards 2007). On the other hand, some researchers have postulated that "although the information society is often assumed to have an inherently liberal bias, the technologies associated with it have the potential for substantially enhancing the oversight approach to control [...] of traditional field bureaucracies" (Hood 2000, 2). Other empirical studies conducted in government agencies have confirmed that the formalization of teleworking practices aimed at increasing visibility and presence may even intensify control, thus reinforcing the "bureaucratic virtues of predictability, accountability, surveillance of workers through the superimposition of new practices of control on existing ones" (Taskin and Edwards 2007, 202). In the same vein, new and flexible forms of work enabled by ICTs may over time accentuate the fragmentation of tasks and the modularity of the bureaucratic order, segmenting labor and turning it into a commodity removed from time and space (Kallinikos 2003, 2004).

Moreover, while telework is framed as a tool to enhance work-life balance, it may challenge the processes and ethics of government by blurring the boundaries between professional and private life. The separation between the working and non-working spheres is characteristic of the traditional conception of a bureaucracy composed of civil servants dedicated to impersonal and functional roles while in the office. Codified by Weber,

the notion that civil servants should be value-neutral and that they should both ensure and obtain equal treatment is rooted in the political philosophy of earlier thinkers, including Hegel, Hume, and Rousseau (see [Bruce and Reed 1994](#), 37–38; [Shaw 1992](#)). Separating professional from private life in different silos is intended to guarantee that family and personal relations do not distract the objectivity of civil servants. Therefore, technological and logistical changes that disrupt the insulation of bureaucratic tasks may lead to “family intrusion into work” ([Wadsworth et al. 2010](#), 326) and exacerbate the work-family conflict perceived by civil servants ([Lee and Hong 2011](#); [Wadsworth and Owens 2007](#)): the demands of one role (family member) interfere with the demands of the other (worker). The tacit norm of the civil servant who separates professional and personal life seems hard to dislodge ([Bruce and Reed 1994](#)) and thus, colleagues and superiors may explicitly or tacitly blame employees whose professional conduct deviates from the undivided commitment expected of civil servants. Against a backdrop where ICTs could strengthen the segregation of tasks and functions and where working remotely could even attract some criticism, it is unsurprising that previous studies have found that teleworkers in public organizations report feeling isolated ([de Vries et al. 2019](#)) and lacking social support ([Caillier 2012](#)) as negative aspects of remote work. However, although exploring the negative effects on teleworkers offers precious insights, these studies overlook what happens to the rest of the organization when telework is implemented. We argue that this is a significant limitation, as teleworkers typically represent only a limited percentage of the total workforce in public organizations ([Korunka et al. 2018](#); [US OPM 2019](#)).

#### Critical Effects of Telework on Non-teleworkers

Recent studies have enlarged the picture and have begun to investigate the attitudes and reactions to remote arrangements of those public employees who remain in the office. Most of this literature has built on social exchange and organizational justice theories that, in stylized terms, posit that people seek a balance between their investment in a relationship and what they receive in return ([Adams 1965](#)). Translated into the context of public employment, civil servants determine “how equitable a reward is after comparing their inputs and outcomes with those of their coworkers” ([Noblet and Rodwell 2009](#), 558); that is to say, the balance between inputs and outputs is assessed against what others are getting.

The aim of studies adopting social exchange theory ([Bae et al. 2019](#); [Caillier 2012, 2013](#); [Choi 2018](#); [Lee and Kim 2018](#); [Mahler 2012](#)) is to determine whether non-teleworkers think a benefit such as remote work (input) is associated with employee motivation

(output), and how this compares to what teleworkers (the others) think. The availability of the benefit of telework is operationalized both as formal eligibility and as actual accessibility. The difference lies in the fact that when employees are classified as eligible to telework in a public organization, several obstacles may still prevent them from doing so. Those include technical barriers such as lack of IT equipment or other logistical impairment, the intrinsic nature of the tasks, and discretionary barriers such as managerial decisions. Consistent with the expectations of social exchange theory, scholars found that eligible employees who were not allowed to telework reported lower levels of work motivation than teleworkers, “because they [non-teleworkers] qualified for and were denied the benefit” ([Caillier 2012](#), 475). More specifically, studies differentiating the types of barrier to telework for eligible employees found that employees who were denied this benefit had higher turnover intentions than employees who did not telework because of objective barriers such as technical issues or job requirements ([Caillier 2013](#)). Also, non-teleworking employees displayed the highest level of job satisfaction—even higher than teleworkers—when they could choose. This suggests that the discretionary element is fundamental. Eligible employees left out from telework due to the judgment of managers displayed low levels of satisfaction. In contrast, employees who voluntarily declined the flexible arrangement they had been offered, reported high levels of satisfaction.

The few studies adopting different theoretical lenses reached similar conclusions. For example, [Bae and Kim \(2016\)](#) adopted neo-institutionalism to explore the effects of decoupling, that is, the apparent conformity to policies or community needs without actual implementation ([Meyer and Rowan 1977](#)). The study showed that when public organizations signaled the adoption of telework by defining eligibility criteria without enacting this decision, employees displayed low levels of satisfaction. A more recent study ([Bae et al. 2019](#)) confirmed the results and further showed the importance of institutional support in limiting decoupling between telework eligibility and actual access to this arrangement. Both leadership committed to telework and explicit policies for diversity management helped to harmonize differences between employees, thus relieving a relational conflict ([Choi 2009](#)) that could be presumed to exist between beneficiaries and non-beneficiaries of telework.

Also, if we turn to studies conducted in private sector organizations, we find limited scholarly attention to non-teleworkers ([Bailey and Kurland 2002](#); [Rockmann and Pratt 2015](#)), with a few exceptions such as a seminal empirical study investigating whether the prevalence of teleworkers in an office impacts the



work outcomes of coworkers. The study concluded that “teleworker prevalence is negatively associated with coworker satisfaction and turnover intentions” (Golden 2007, 1641), confirming the assumption that negative unintended consequences for coworkers, such as a higher and more hectic workload, a less enriching social milieu and lower levels of flexibility take a toll on the overall perception of telework and calling for further investigations of the potential adverse consequences of remote arrangements for the rest of the organization.

Summing up our theoretical framework, the introduction of telework may perpetuate and even reinforce some of bureaucracy’s main attributes, such as control and modularity. However, public organizations that have adopted telework are experiencing unexpected consequences. While telework is considered an arrangement that increases flexibility, thus potentially contributing to improve the work-life balance of public employees, it can also challenge their undivided attention to their job. Furthermore, it can trigger a workforce divide—the one between the haves and have nots of telework. We know that teleworkers often feel isolated and we know that public employees who lack access to telework for reasons other than their own choice may perceive a sense of inequality and unfairness (Mahler 2012), leading to lower levels of job satisfaction. This is also confirmed by evidence from the private sector. However, we remain unclear about the preferences of non-teleworkers towards teleworking colleagues and the reasons behind such preferences. In what follows, we describe the research strategy we have devised to address these questions.

## Research Strategy

### Empirical Setting

The context of our research is a local agency in Northern Italy that provides a variety of important services, such as health, education, employment, transportation, and viability to roughly 500,000 citizens living in 175 municipalities. This public organization has been committed to the implementation of telework.<sup>2</sup> Announced as a pilot project in 2011, telework was an initial response to the stated objectives of economic savings, work-life balance, community & environment and diffusion of Information & Communication Technologies, in the context of a mountain area where lack of transportation and

mobility created some difficulties.<sup>3</sup> In the following 3 years, the project was scaled up and turned into a permanent working mode.

In 2016, when we started our research, the local agency had about 4,000 employees,<sup>4</sup> of whom about 3,380 were considered eligible for telework and 400 were actually working from home or satellite centers. The percentage of teleworking employees was in line with the experience of telework in central and local administrations both in Europe and in the United States (Korunka et al. 2018; US OPM 2019).

Teleworkers were 1/3 male and 2/3 female workers and 3/4 full-time and 1/4 part-time workers. General eligibility criteria referred to the nature of tasks performed and excluded services such as street maintenance, civil and fire protection, forestry services or concierge. Further selection among eligible teleworkers was based on a priority list updated every 2 years and weighting in distance from workplace, personal/family needs, fit of the tasks performed with telework and organizational needs. All 400 employees teleworked between 2 and 3 days a week and stayed in the main office the rest of the week.

Summing up, in our empirical context, telework was a salient workplace innovation, the most common remote arrangements were available in terms of both logistics (i.e., both satellite and work from home) and intensity (2 or 3 days per week), and telework was evolving in a functional way.

### Sequential Mixed Method Design

To explore our questions, we employed a mixed-methods design that, while elaborate and demanding (Nowell and Albrecht 2019), seemed the most suitable to explore a phenomenon with complex implications against a backdrop of scarce existing theory (Mele and Belardinelli 2019).

The design, set up as a sequential mixed method, consisted of three phases: a preliminary exploration, a discrete choice experiment, and a qualitative follow-up (2016–2018). We subsequently analyzed our data and composed the paper (2019–2020). The three phases and their connecting points are illustrated in figure 1 and described in the following sections, following the methodological transparency and accessibility recently recommended for studies in public administration (Mele et al. 2020; Zhu et al. 2019).

### Preliminary Exploration

In the preliminary phase, we gained access to and familiarity with the context. We gained access by

2 In 2014, the local agency had won the *smart-working award* given by a University-based Smart Working Observatory (Osservatorio Smart Working, Politecnico di Milano). In 2015, two of the authors were team members of the EU Project LIPSE (Learning from Innovation in Public Sector Environment), which included this project as the Italian best practice of telework in government.

3 Although the majority of civil servants live in the urban context of the main city, the overall territory is a mountain area of 3,800 square miles, over 70% of which is located above 3,000 feet.

4 This count was subject to small fluctuations, depending on new hires and retirements.

guaranteeing the anonymity of the organization as well as the complete independence of the research project. We collected and analyzed feasibility studies, annual project reports, training materials, press releases, and results of internal surveys of employees on telework. After extensive documentary analysis, we conducted semi-structured interviews ( $N = 12$ ) with the Human Resources managers, with the managers responsible for teleworking and with the head of Information Technology services and with a few teleworkers. This phase allowed us to understand the context and the evolution of telework and served two main purposes. It gave us the opportunity to build mutual trust with our key interlocutors in the agency (Bauer and Gaskell 2000), a prerequisite fundamental to design and administer a research protocol as sensitive as a framed field experiment (Harrison and List 2004). Furthermore, it highlighted significant dimensions that were then employed in such experiment, as we explain in the next section.

#### Discrete Choice Experiment: Procedures and Data

In this phase, 1,014 non-teleworking employees from the partner organization participated in a discrete choice experiment, that is, a paired conjoint design with a forced choice that entailed presenting respondents with pairs of alternatives and asking them to choose the preferred option from each choice-set. A discrete choice experiment methodology is a quantitative research method that enables researchers to model real-world choices between alternatives that differ with respect to multiple attributes rather than a particular factor (Ryan et al. 2012). By exposing subjects to multiple pieces of information at the same time, a discrete choice experiment provides greater realism compared to survey techniques that elicit preferences on single pieces of information at a time (Hainmueller et al. 2014; Hainmueller et al. 2015).

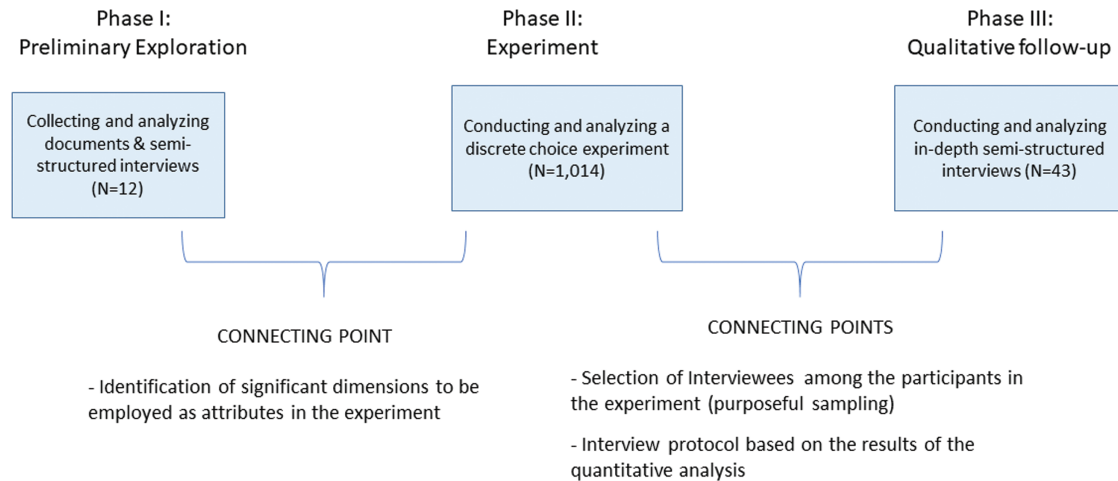
We next account for the details of the procedural choices of our experiment (Walker 2019). The context of our experiment was presented to participants as a web-based simulation that we were conducting on behalf of the agency to test a new performance appraisal framework. Participants were recruited via email invitations and completed their simulations through Qualtrics between September 22 and November 3, 2016. The invitation to participate in the web-based simulation was sent to 1,848 non-teleworkers that the partner organization had selected as representative of the 3,380 employees eligible for telework. Of the 1,848 employees invited to the web-based simulation, 1,014 eventually participated in the discrete choice experiment, for a response rate of about 55%. Participation was voluntary and did not involve any compensation. Supplementary appendix table A1 reports the

demographics of employees eligible for teleworking, those invited to participate in the web-based simulation, and respondents. Any references to telework or cognate constructs were avoided throughout this experimental phase to keep subjects totally blind to our research question.

Civil servants in our study were asked to choose between pairs of prospective coworkers who differed along five categorical attributes: sex (male, female), years of age (39, 45, 51), number of children (one, three), teleworking status (non-teleworker, teleworker), and working schedule (part-time, full-time). This design allowed estimating the relative importance that respondents attached to each of the five attributes when forming preferences toward a prospective coworker. In line with established standards for conducting discrete choice experiments (see Ryan et al. 2012 for comprehensive guidelines), the selection of attributes and their levels was theoretically informed by the literature we reviewed in previous sections and validated through joint work with key informants from the local agency to ensure contextual realism. The teleworking status and working schedule were derived from literature on flexible work arrangements in public organizations (Kim and Wiggins 2011, Lee and Hong 2011) and operationalized upon consultation with the local agency. In particular, key informants from the partner organization indicated that the most common teleworking scheme was to work 3 days a week from home. Based on this, we experimentally manipulated the teleworking status by describing non-teleworkers as those working 5 days a week in the office and teleworkers as those working 3 days a week from home and the remaining 2 days in the office. Sex, age, and number of children were suggested by the local agency as attributes they were interested in including in the discrete choice experiment to isolate the effect of teleworking status from the effects of other factors with which teleworking status is often associated.

The combination of the five attributes—three with two levels and one with three levels—generated a total of 48 (i.e.,  $2^4 * 3$ ) unique employee profiles. Using a cyclical fold-over approach (e.g., Street et al. 2005), we built 48 choice sets by pairing each unique employee profile with its mirror profile, obtained by moving each attribute to its next level. For instance, for a 51-year-old male full-time teleworker with three children, the mirror employee would be a 39-year-old female part-time non-teleworker with one child. To limit cognitive fatigue, each participant was presented with six choice sets, which were randomly selected from the 48 possible choice sets. Six choice sets were presented to each of the 1,014 subjects who participated in the discrete choice experiment. Following Ryan et al. (2012) guidelines on discrete choice experiments, we used

Our mixed methods design: Phases and connecting points.



**Figure 1.** Our Mixed Methods Design: Phases and Connecting Points.

conditional logit to model the probability a respondent would prefer one of two prospective coworkers ([supplementary appendix table A.2](#)).

The results of the discrete choice experiment indicated unambiguously the preferences of public employees towards non-teleworking colleagues. However, based on these results, we could only speculate on the reasons behind coworkers' orientation, and in order to unpack those reasons we needed to explore the inner view of coworkers. We did so through the last phase of our research process, that is, the qualitative follow-up that we present in the next section.

#### Qualitative Follow-up

The last stage of our research consisted of a qualitative follow-up to the discrete choice experiment. Our aim was to conduct interviews that would illuminate, through the account of first-hand informants in their real-life context ([Ospina et al. 2018](#)), the “how” and “why” ([Nowell and Albrecht 2019](#)) behind coworkers preferences.

Following the standards of sequential mixed methods design ([Belardinelli and Mele 2020](#)), we designed the original study envisioning the possibility of such a quanti-qualitative sequence, although we decided to actually embark on a second phase after processing the results of the experiment, puzzled by the significance of coworkers' preferences towards non-teleworking colleagues.

In particular, we connected the experimental and the qualitative phases through two methodological devices ([Bryman 2006](#); [Creswell and Plano Clark 2018](#)): the respondents for the qualitative follow-up were a sub-set of the participants in the experiment and the interview protocol was grounded on the results of the experiment.

Through a process of “purposeful sampling” ([Teddlie and Yu 2007](#)), we identified interviewees according to their potential contribution to the research question ([Patton 2014](#)). With this criterion in mind, we selected interviewees from among the 210 participants to the experiment who had expressed their availability to be contacted for a possible follow-up. Our analytical purpose was to unpack the reasons behind the stark preferences of coworkers towards non-teleworking colleagues. Therefore, we identified the subset of participants ( $n = 68$ ) who had systematically stated a preference against teleworkers across their six choice-sets of the experiment. In other words, their choices qualified them as key informants for our exploration. Out of 68 informants, we were able to secure 43 in-depth interviews within the time-frame of the research plan.

Furthermore, through the “interview protocol development” ([Ivankova, Creswell and Stick 2006](#), 13) we searched for clarification, richer accounts and inner perspectives to help us make sense of the quantitative findings. Our interviewees were reassured that results would be completely anonymous and would be used solely for the purposes of an academic project. We conducted the semi-structured interviews mostly on Skype and in a few cases (seven) on the private mobile phone of respondents who did not have privacy in their office or who preferred to respond outside of office hours. Interviews lasted between 50 min and 2 h and were organized around 12 open questions (see the interview protocol, [supplementary appendix B.2](#)). We started with broad questions on the organization of the work in their units and on the role of information technology in their activities; we then moved on to telework. We asked about their conception of telework in general, why they thought the agency had implemented it, whether they had a direct experience with teleworkers,

how they would consider collaborating with them and choosing one for their office; we delved into the critical issues that were raised. Interviews were recorded and transcribed. The transcripts' analysis combined deductive a priori broad themes, such as the conception of telework, with data-driven inductive coding; this allowed original themes to emerge directly from the transcripts (Fereday and Muir-Cochrane 2006). Coding was performed with the support of the software program ATLAS.ti. To ensure a systematic approach to the "conceptual leap between research data and theoretical contribution" (Ashworth et al. 2019, 320), we began by defining first-order codes comprising themes that mentioned facts and descriptive information; we then distilled them into four second-order themes that referred to more complex processes and were composed of emergent analytical categories (Gioia et al. 2013). This structure is reflected in our qualitative findings. To maximize the transparency of the coding process from exemplary sentences to aggregate dimensions, we have also included four tables in the supplementary appendix (tables C.1–C.4).

## Findings

### Preferences Towards Non-teleworking Colleagues

Table 1 reports the estimates from our conditional logit analysis. Unstandardized coefficients in the  $\beta$  column of table 1 indicate the amount of change in the predicted log odds of choosing a prospective coworker that would be expected for a one-unit change in the predictor, holding all other variables constant. As an example, for a one-unit increase in Male (i.e., going from female to male), the expected log of the odds of being selected decreases by 0.13, holding all other variables constant. For each of the attribute levels, table 1 also reports the associated standard error, z-score (z), and p-value, as well as the percent change in odds. In particular, the column labeled %  $\Delta$  Odds reports the percentage change in odds, which can be calculated by subtracting 1 from the odds ratio (OR) and multiplying the result by 100, that is,  $(OR-1)*100$ .

**Table 1.** Estimates from a Conditional Logit Model

Prospective Coworker	$\beta$	Std. Err.	z	p > z	% $\Delta$ Odds
Male	-0.13	0.03	-4.62	.000	-12.5
45 years old	-0.09	0.04	-2.18	.029	-8.5
51 years old	-0.10	0.04	-2.56	.010	-9.9
3 children	-0.14	0.03	-4.79	.000	-12.9
Part-time	-0.48	0.03	-16.35	.000	-38.1
Teleworker	-0.88	0.03	-29.88	.000	-58.5
Constant	0.09	0.03	3.07	.002	9.2

Number of obs. = 12,070; LR  $\chi^2(7) = 1279.50$ ; Prob. >  $\chi^2 = 0.0000$ ; Log likelihood = -3543.3937; Pseudo  $R^2 = 0.1529$ .

Our data show that the agency's employees in our sample preferred prospective coworkers who were female, younger, with fewer children, on a full-time schedule, and who were non-teleworkers. More precisely, other things being equal, the odds of being selected were 58.5% lower for teleworkers relative to their non-teleworking counterparts, 38.1% lower for part-time workers compared to their full-time peers, 12.9% lower for employees with three children rather than one, 12.5% lower for males, and 8.5% and 9.9% lower, respectively, for a 45-year-old and a 51-year-old relative to a 39-year-old. Among the attributes in our experiment, teleworking status had by far the strongest negative impact on current employees' preferences for prospective coworkers. It is worth highlighting that the agency's employees who participated in our experiment opposed a teleworker joining their unit far more than they disliked a prospective coworker on a part-time schedule.

The pattern of results that we observed for the pooled sample held true across categories of respondents with different degrees of exposure to teleworking colleagues. Table 2 reports estimates from a conditional logit model in which the *Telework* attribute was fully interacted with a four-level categorical variable indicating respondents' self-reported exposure to teleworking colleagues.

Experimental subjects from units with no teleworkers show a stronger preference against a prospective teleworking coworker compared to subjects from units with some teleworkers. All else being equal, compared to respondents from units with no teleworkers, the log odds of preferring a prospective coworker who teleworks are .28 less negative among participants from units with 1 through 5 teleworkers and .41 less negative among subjects from units with more than 5 teleworkers. For agency employees with no direct exposure to teleworkers in their units, the odds of preferring a prospective coworker who teleworks are 33% (i.e.,  $e^{-1.10}$ ) of the odds of preferring a non-teleworker. The odds ratio goes up to 44% (i.e.,  $e^{-1.10+.28}$ ) for respondents with 1 through 5 teleworkers in their units and to 50% (i.e.,  $e^{-1.10+.41}$ ) for those surrounded by more than 5 teleworking colleagues. Preferences against teleworkers were not significantly different between subjects with no current teleworking colleagues and respondents who did not know the number of teleworkers in their units.

Despite these differences between categories of respondents with different numbers of teleworking colleagues, teleworking status remains the attribute with the largest negative coefficient within each of those categories. This is to say, a greater exposure to teleworking colleagues seems to mitigate—but not eliminate—the preference towards non-teleworking colleagues.



**Table 2.** Estimates From a Conditional Logit Model With Interaction Terms Between Teleworking Status of the Prospective Coworker and Number of Teleworkers in the Respondent's Unit/Department

Prospective Coworker	Teleworkers in Respondent's Unit	$\beta$	Std. Err.	$z$	$p > z$
Male		-0.13	0.03	-4.62	.000
45 years old		-0.09	0.04	-2.18	.030
51 years old		-0.11	0.04	-2.61	.009
3 children		-0.14	0.03	-4.71	.000
Part-time		-0.48	0.03	-16.38	.000
Teleworker	None	-1.10	0.06	-17.59	.000
	1-5	0.28	0.08	3.63	.000
	>5	0.41	0.08	4.81	.000
	Don't know	0.11	0.10	1.13	.257
Constant		0.09	0.03	3.07	.002

Italic values indicate differences compared to the "None" category. Number of obs. = 12,070; LR  $\chi^2(10) = 1306.86$ ; Prob. >  $\chi^2 = 0.000$ ; Log likelihood = -3529.7156; Pseudo  $R^2 = 0.16$ .

Moderation analyses for respondents' sex revealed that opposition to telework is slightly stronger among men than among women. More precisely, the odds of preferring a prospective coworker who teleworks were 44% of the odds of choosing a non-teleworker among female employees and 38% among their male counterparts ( $p = .012$ ). Moderation analyses for age groups revealed that respondents in extreme age categories tended to oppose telework more strongly than the rest of the employees. The odds ratios among subjects younger than 35 and older than 60—.23 and .28, respectively—were significantly lower than the odds ratios in the other age categories, which ranged between .42 and .46. These differences, however, should be interpreted with caution because the two extreme age categories together comprised less than 10% of respondents.

In order to gain a richer understanding of some of the mechanisms driving the preferences that we estimated through the discrete choice experiment, we now move to the results from the qualitative analysis.

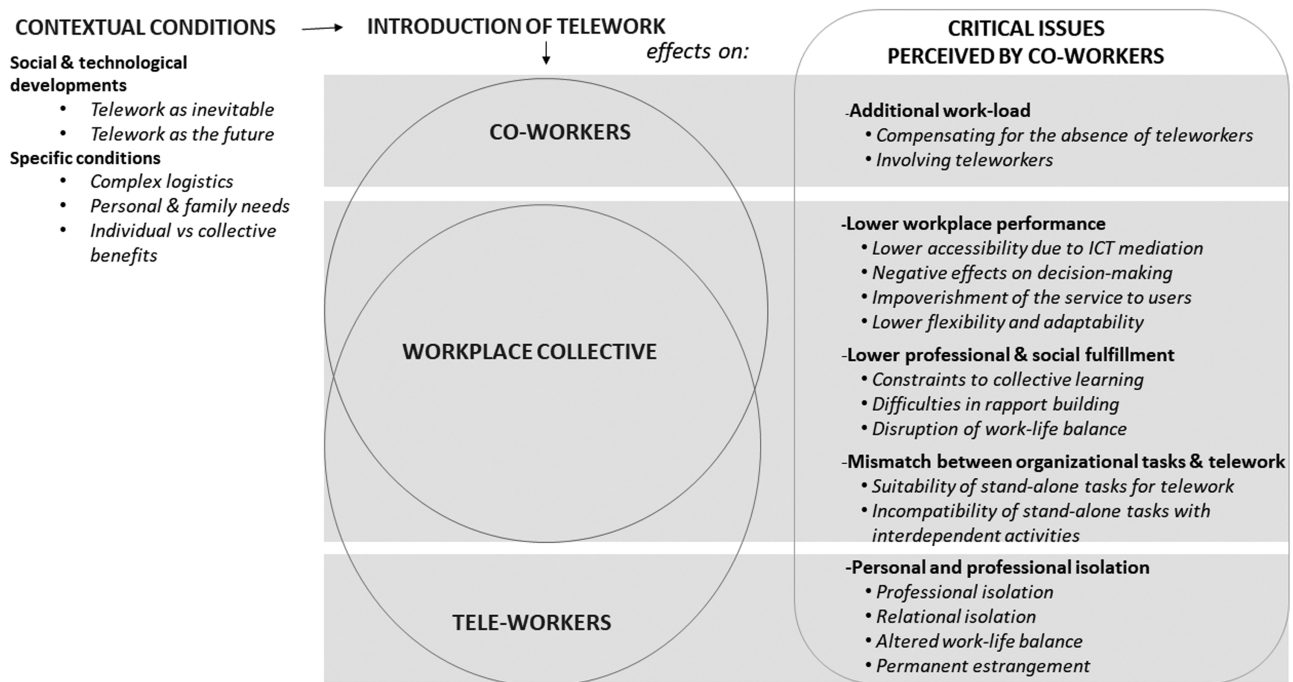
#### Unpacking Preferences Towards Teleworkers

The interviews did not reveal a blanket orientation against telework per se. Rather, its introduction was justified as the consequence of inescapable technological progress as well as a response to legitimate workers' needs. Despite this awareness, respondents articulated at length the motives behind their preferences. Figure 2 offers a visual representation of the structure of our qualitative findings, which are organized in four main sections. The contextual conditions leading to the introduction of telework are followed by the negative effects that, in the view of our interviewees, telework generated on teleworkers, on their coworkers and on the whole workplace collective. Supplementary appendix tables C.1–C.4 show how we built these themes and offer additional exemplary evidence for each element of our analysis.

#### Contextual Conditions for the Introduction of Telework

Our interviewees shared thoughtful accounts of the contextual conditions that, in their view, led to the introduction of telework in their organizations as well as in the public sector (see supplementary appendix table C.1 for additional illustrative evidence). Those included *societal and technological developments*. We found a diffuse *sense of inevitability* around the introduction of telework. Respondents recognized that telework mirrored the societal changes they observed in their lives: "Once, people would meet friends at a bar to chat but now, many of us, especially young generations, do it online. Same applies to the way we work. Now you have a colleague who teleworks instead of working physically next to you" (Interviewee n.13). Telework's advent was considered as something inherent in the *future* and that had to be done: "I don't blame them [i.e. the agency] for doing this. Telework is certainly the future" (Interviewee n. 22).

Respondents also pointed to *specific conditions* under which telework was considered useful or even necessary. Those included the *complex logistics* of a geographical area where "with all those valleys and mountains, depending on where you live, it may be impossible, literally impossible to commute" (Interviewee n.15). Furthermore, responding to *personal and family needs* was considered to be an ethical call, as captured by one of our informants: "If someone has small kids and no help available or somebody sick at home, I understand it. It becomes an ethical problem. I mean, you have to feel generosity towards colleagues" (Interviewee n. 6). In such circumstance, it was also perceived as a means to ensure efficiency: "If your colleagues are happy, they work better and the office is more productive" (Interviewee n. 2). Along this line, respondents regarded telework as "the solution to avoid some part-time contracts, when commuting occupies a significant chunk of your time" (Interviewee n. 7). Notwithstanding the legitimacy of these motivations,

*Introduction of telework: contextual conditions and critical issues perceived by non-teleworker*

**Figure 2.** Introduction of Telework: Contextual Conditions and Critical Issues Perceived by Non-teleworker.

interviewees often described an “ambivalence” (Interviewee n. 36) or a *trade-off between individual and organizational benefits*: “From an individual point of view, it’s a way to meet the expectations and the quality of work of single employees, maybe those with kids or family issues. From the point of view of the office, it creates less of a team and a lower level of immediate collaboration that you can get with direct contact” (Interviewee n. 23).

#### Critical issues: Effects on Coworkers

A first type of effects on coworkers was the burden they perceived in terms of *additional workload* (see [supplementary appendix table C.2](#) for illustrative evidence). The physical absence of teleworkers required that those still present in the office had to deal with all the demands of clients, *compensating for the absence of teleworkers*: “If the colleague is [teleworking] at home and I am here, and if some citizens come in the office, I am the one who has to sit through their requests and complaints, etc.” (Interviewee n. 28). But, more frequently raised and perceived as burdensome was the extra work of colleagues in the office required to *involve teleworkers*: Having a colleague who teleworked was considered “harder because it requires you to think about new ways of collaborating, it requires you to keep them in the active circle....it is a burden in a sense but it is not acknowledged as extra work” (Interviewee n. 16).

#### Critical Issues: Effects on Teleworkers

Our interviews also revealed concerns about the effects on teleworkers (see [supplementary appendix table C.3](#) for additional illustrative evidence), in particular, their *personal and professional isolation*. Often conceived as a way to facilitate work from home, isolation of tasks resulted in a *professional isolation*, that is, excluding teleworkers from assignments that required constant interaction and shifting some of these responsibilities to their colleagues in the office. In the words of one respondent: “Teleworkers are, like, unloaded of more complex assignments because it is easier to assign them specific tasks they can perform alone, and those who remain in the office are not happy because they have more workload” (Interviewee n. 6). The physical separation of teleworkers led also to *relational isolation*: “You lose the curiosity and you get cut off from a certain type of interaction. You basically miss the human side” (Interviewee n. 13). A further concern for teleworkers, especially those working from home, was the challenge to remain active and maintain a balanced, stable mindset. Telework, in the view of several of our interviewees, was considered “counterproductive” (Interviewee n. 3) as it *altered work-life balance*. For example, it could “lead to shuffling around in one’s slippers; a person is less motivated to go out, dress up, take care of herself” (Interviewee n. 42). Over time, professional and relational isolation of teleworkers could lead their colleagues in the office to “do without

them” (Interviewee n. 33) because “one day they are not there, then another, and you forget they exist in a way, even when they are in the office” (Interviewee n. 26), a consequence that we labelled *permanent estrangement*.

#### Critical Issues: Effects on the Workplace Collective

The effects of telework that our respondents perceived as by far the most critical pertained to the collective sphere of the workplace (supplementary appendix table C.4 for additional illustrative evidence). Interviewees reflected upon the negative effects of this workplace innovation borne by both teleworkers and their coworkers who were members of the same collective.

A first set of effects pointed to *lower workplace performance*. The telework made colleagues working remotely *less accessible* and created obstacles to fast and smooth communication. It especially discouraged frequent, informal communication on minor issues that was nevertheless considered important to get work done. Respondents referred to an “invisible barrier” and to their reluctance to contact the colleague away from the office “for only trivial things” (Interviewee n. 4). Telework also had *negative consequences on the collective decision making*, as an exchange in person was considered crucial “for discretionary aspects, while for processing large numbers of procedures head down, it [i.e., telework] may even be more productive” (Interviewee n. 8). In a similar vein, telework was also thought to “*impoverish the service to users*” (Interviewee n. 21), not so much because it limits the number of colleagues available for front office activities but because it prevents the consultations that would otherwise accompany the analysis of single procedures, especially the thorny or unusual ones. The interviews revealed that relying on this flexible work arrangement also served to *lower flexibility* in the activities performed by the team as a whole. It made it “difficult to adapt to innovative solutions and unexpected circumstances” (Interviewee n. 9). It was challenging to handle unexpected problems and “things in emergency mode when part of the team is away” (Interviewee n. 7). Also, emerging practices such as modifying procedures or changing plans “in real time” (interviewee n. 1) were complicated by the physical distance.

We identified a second set of effects that, according to our interviewees, led to *lower professional and social fulfilment*. By weakening collaboration, telework led to *constraints to collective learning* by “sort of crystallizing the competencies and this is not very enriching” (Interviewee n. 17). Informants lamented that what was lost with remote arrangements was unmediated dialogue, which would otherwise allow exchanging views

and comparing opinions, thus advancing the ability to diagnose and address problems. In the words of one of our informants: “Since, even among colleagues, there are different interpretations of a problem, of a piece of law, of the solutions, what is missing [with telework] is the exchange and the debate that allow professional growth” (Interviewee n. 25). The sense of fulfillment affected by telework was not only strictly professional but had also a strong social side. We often found evidence of the *difficulties of rapport building* in the office when someone was working remotely. As vividly reported: “To speak and to discuss, even the jokes, harmonize the team and I am not able to do it with someone over the phone or on a screen” (Interviewee n. 4). Interviewees shared their worries about the *alteration of work-life balance* and specifically saw at risk the opportunity offered to the employees by the workplace to switch gears between personal and professional life. This, in turn, allowed them to “think clearly about domestic problems” (Interviewee n. 31). An interviewee shared that “Sometimes I may have issues at home, then I go to work and I put in perspective all the troubles. I come back home and I feel I have more objectivity and strength to deal with my own stuff” (Interviewee n. 27).

Third, we found a strong perceived *mismatch between organizational tasks and telework*. On the one hand, telework was conceived as an arrangement *viable only for “stand-alone tasks”* (Interviewees n. 20, 35) or “standardized tasks” (Interviewees n.1, 27) based on “routines” (Interviewees n. 2, 30). Respondents explained that in their view, telework should be performed exclusively by “technical” (Interviewees n. 5, 29) and “administrative staff” (Interviewees n. 3, 5, 18) in charge of “data entry” (Interviewees n. 10, 13, 14, 20, 35), of “running statistics” (Interviewee n. 12) or “in a call center” (Interviewee n. 19). On the other hand, interviewees systematically considered this type of stand-alone task *incompatible with their activities*: “For specific typologies of tasks such as data entry, it wouldn’t be a great burden, but for my team, where we need to look in each other’s eyes and discuss before deciding, it can’t really work, it is difficult” (Interviewee n. 10).

## Discussion and Conclusion

Previous empirical research set not only in public but also in private organizations has tended to neglect the response to and perception of non-teleworkers to the introduction of this workplace innovation. This is exactly what we bring under the spotlight, asserting unambiguously that office-based civil servants have a strong preference against teleworkers joining their team. Of all the attributes in our discrete choice

experiment, teleworking status had the strongest negative effect on respondents' preferences for prospective coworkers. Illustrative of this attitude, participants in our experiment preferred a part-time coworker with no teleworking arrangements over a full-time employee who was working remotely 3 days out of 5 a week. Despite some variation, this overall effect held true across subjects' characteristics, such as gender, age, and current number of teleworkers in their unit/departments. Indeed, although preferences towards non-teleworkers was relatively lower among females and tended to weaken with increased exposure to teleworking colleagues, teleworking status was the attribute associated with the largest negative coefficient in each of the categories we considered in our moderation analyses.

We explored the motives behind this attitude, addressing the calls to employ mixed methods to uncover the dynamics triggered by telework in public administrations (Green and Roberts 2010; Kim and Wiggins 2011). The inductive nature of our qualitative follow-up allowed us to enrich the strand of public administration research that has focused on the satisfaction of non-teleworkers as a function of their teleworking status (Bae et al. 2019; Caillier 2012, 2013; Choi 2018; Lee and Kim 2018; Mahler 2012). We learned, in fact, that also non-teleworking public employees who did not resent being excluded from remote arrangements were nevertheless reluctant to have a teleworker on their team, suggesting that the roots of their preferences are not to be explained exclusively by social exchange or organizational justice theories. We identified a set of motives resonating with these theories, that is, the concerns for additional and erratic workload. However, unlike typical accounts of the problems of telework, our informants only occasionally attributed additional workload to the need to compensate for the absence of colleagues working remotely. Rather, the main burden we identified was the need to reach out to teleworking colleagues and keep them engaged in the daily dynamics of the office.

The analysis of the office interactions as seen through the eyes of coworkers extends our understanding of the problematic implications for teleworkers in public organizations. Not only does it confirm their professional and relational isolation (de Vries et al. 2019), but it also uncovers an effect that we label "permanent estrangement," whereby office-based staff who become accustomed to working and socializing without their remotely-working colleagues, continue to do so even when teleworkers are back in the office.

Our main set of findings pertains to consequences experienced by office-based colleagues of teleworkers in their role as members of a team. Several obstacles and shortcomings reported by coworkers are related

to the workplace dynamics of the whole collective. Notably, these motives are predominant in our analysis, yet went mostly unnoticed in previous studies, possibly due to the narrow focus of the public administration literature on either teleworkers or, more recently, on non-teleworkers.

First, teleworker-focused studies have included a substantive improvement of work performance in public organizations as one of the advantages of this innovation (Bae and Goodman 2014; Kwon and Jeon 2017), albeit this view is not unanimous (Lee and Hong 2011). Our data allows a more nuanced view by showing that telework may hinder the overall performance of the workplace collective, although it does not inevitably weaken the productivity of civil servants. When a process can't be planned in advance, such as in the case of unexpected occurrences, users showing up with disparate requests or decisions requiring high degrees of discretion, the office as a whole performs at a lower standard. Therefore, our findings uncover a significant tension between the flexibility of the arrangement and the inflexibility of the task. We believe this finding resonates with and enriches the academic debate that, since Lipsky's work on street-level bureaucrats (Lipsky 1980), has explored administrative discretion, that is, how formal laws and procedures derive their meaning from the ways in which they are routinely translated into practice by civil servants (Brodkin 2011). Our analysis shows that telework alters the routine patterns of informal practice in a public office (Lavee 2021). It may weaken the "pragmatic improvisation" of bureaucrats (Maynard-Moody and Musheno 2012) whose judgment and action are embedded in a range of consulting relationships with coworkers (Hupe and Hill 2007) who represent their primary reference group (Maynard-Moody and Musheno 2000). When some colleagues telework, the collective has less immediate access to those staff members who are physically away, and this hampers informal communication due to the difficulties of technology-mediated rapport building.

Second, our findings address the underexplored role of remoteness on learning in public organizations (Taskin and Edwards 2007), defined as "individual perceptions of the deployment of knowledge in a group setting" (Moynihan and Landuyt 2009, 1098) that is integral to social interaction and engagement in government work practice. Previous research has identified several structural and cultural elements that may hinder organizational learning in public agencies. Those include centralized power structures in formal hierarchies, departmental and service-level boundaries and professional boundaries (Nutley and Davies 2001). We enrich this repertoire and shed light on the role of remote arrangements. By weakening the intensity of on-site exchange and consultation, telework has



two effects. It alters the “learning forums” (Moynihan and Landuyt 2009), that is, those organizational routines that enable a dialogue among employees when they examine and discuss both hard and experiential data in order to advance the institutional mandate. Moreover, telework seems to freeze collective understanding, limiting the development of further know-how. It could be argued that a risk of remote arrangements is that they tend to reinforce a static view of organizational learning based on existing individual knowledge rather than a dynamic approach that relies on the shared production of actionable knowledge adapted to local contexts (Rashman et al. 2009).

Third, our interviewees considered it more burdensome to perform complex and non-routine tasks when some of their colleagues were away. This finding departs from existing scholarship on e-government, according to which innovative technologies are perceived as more useful, hence accepted, especially for non-routine tasks (Feeney and Welch 2016; Fusi and Feeney 2018; Li and Feeney 2014; Welch and Feeney 2014). Our interviewees frequently cited stand-alone, administrative tasks as conditions under which telework would not be problematic. At the same time, not a single one of our informants considered this type of task to be compatible with the activities of their own office. Quite the opposite, all vigorously affirmed the mismatch between the functions of their offices and the segregation of tasks. Such attitude signals that, in practice, the interdependent functioning of modern public bureaucracies is hard to reconcile with the ideal type of independent tasks performed everywhere at any time that, to put it in Weber’s terms, may “reduce every worker to a cog in this machine” (Weber 1968, liii).

Fourth, telework challenges not only the professional dimension but also what we labeled social fulfillment in the work place. Existing literature in public administration cast flexible forms of work as arrangements with the potential to increase the impact that an individual’s family has on their work (Bruce and Reed 1994). Remote arrangements that bring the spatial configuration of work closer to home (satellite centers) or at home (domestic telework) may not only enhance the work-family balance but also exacerbate work-life conflict. When the private sphere intrudes on the professional one, in fact, civil servants may perceive stronger cross-pressures (Saltzstein et al. 2001) and miss the “work-family enhancement,” that is, the positive spill-over of satisfaction and wellbeing at work on the family and personal spheres (Wadsworth and Owens 2007, 75). By shifting the focus from those who work from home to those who remain in the office, we showed that the alteration of work-family relations does not affect only the employees working from home who are at risk of isolation (Facer and Wadsworth

2008). What emerges from our interviews, in fact, is the concern that telework impoverishes the communal experience generated by the workplace; this applies also to those who are left in the office with a less vibrant and enriching environment. By blurring boundaries, flexible arrangements weaken the balancing role of the professional sphere, one where socialization happens and where individual issues, including family ones, are recalibrated and put in perspective.

Our findings should be interpreted in light of a series of limitations that point towards future research avenues. On the one hand, our experimental design ensures high internal validity through the random assignment of participants to experimental scenarios, which eliminates the risk of “[s]ystematic differences over conditions in respondents’ characteristics that could also cause the observed effect” (Shadish et al. 2002, 55). On the other hand, however, our study faces some of the external validity threats that are common to experimental studies in which participation is voluntary. Generalizability concerns are mitigated by the fact that subjects in our discrete experiment are more than one thousand real public employees from a public organization whose employment arrangements are very typical of Italian and European public administrations in terms of job security, salary, status, and recruitment practices.

It also would be interesting to explore whether the results from our experiment, which was conducted before the COVID-19 pandemic, hold true in the post-coronavirus era. In this respect, we posit that our study serves as a valuable and, to our knowledge, unique baseline against which future studies may help gauge how the widespread adoption of telework has impacted public employees’ attitudes toward remote work arrangements. We could, for example, envisage that after being forced by external circumstances to work remotely, employees back in the office will be more prepared to interact not only formally but also informally with those connected from remote premises. Future studies could therefore explore whether such first-hand exposure has led to a normalization of remote arrangements and has altered the preferences of public employees towards teleworkers.

Another potential limitation of our inference is due to the nature of our sample, which included only non-teleworkers. A future research direction that may be worth pursuing is extending our discrete choice experiment to teleworkers, in order to investigate any moderating effects due to teleworking status. Along the same line, our purposeful sample of interviewees comprised those participants to the experiment who could illuminate a theoretically relevant puzzle, that is, the preference towards non-teleworkers. Future studies, especially if entirely qualitative, could include

and analyze a variety of perspectives within the same organization or among different ones. They could, for example, compare the view of teleworkers and their coworkers, differentiate between non-teleworkers by choice and those who couldn't access the remote arrangement, or focus on attributes of telework that we presume are relevant, such as whether employees work in the back-office or have customer contact.

Last, although it is beyond the scope of a single paper, it would be promising to expand the findings to part-time workers; future research may explore how the organization as a whole responds to different forms of flexible arrangements.

### Implications for Practitioners

Our findings offer significant implications for practitioners, particularly at a time when a window of opportunity has opened for mainstreaming telework in public organizations. Over the last decades, governments around the world, from Australia to the Japan and from the United States to Sweden, have invested in pilot initiatives, adjusted their legal frameworks to accommodate the specificities of telework and encouraged its diffusion among public agencies through a variety of initiatives. In spite of the sustained efforts of public agencies at the national and international level, scholars have agreed that the spread of telework among public organizations has been lower than expected (Caillier 2012; Green and Roberts 2010). The global pandemic of COVID-19 has led governments around the world to test the resilience of civil service through remote arrangements that allow social distancing; the spread of telework has soared to unprecedented levels (Hadden Loh and Fishbane 2020). With these premises, we believe telework will become, albeit with significant variations, a mainstay of the conduct of work in our public bureaucracies. Our implications are drawn from the analysis of a setting where government activities were mostly performed in the office, while telework allowed some flexibility of time and space. In these circumstances, which we consider standard, we invite policymakers and managers to address some of telework's critical consequences.

Conventional strategies to mitigate the negative effects of telework have centered on the alternation of remote work and physical presence in the office. While this measure has certainly yielded positive results, it has not proven decisively effective, as demonstrated by the preferences we found in our empirical context, even when teleworkers spent at least 2 days per week in the office. The suggestions we have to offer revolve around two key elements. One is focusing on the workplace collective as a whole, as opposed to the silo approach for teleworkers. The other is facilitating

better integration and socialization among colleagues *while* they are working remotely, instead of relying predominantly on the time teleworkers spend in the office. Importantly, these suggestions are compatible also with circumstances where the majority of bureaucratic activities have to be performed remotely as in the case of large emergency events.

Concrete solutions in this direction include designing integrated workflows that do not parcel out isolated tasks but rather embed the contribution of teleworkers in the regular workflow; employing technologies that facilitate informal communication and encourage accessibility; promoting a workplace atmosphere where time and social acceptance are granted to personal exchanges among colleagues, irrespective of where they work. We submit that these interventions may curb the negative effects of telework, such as permanent estrangement of teleworkers, rigidity in the office performance, and loss of workplace socialization. They require tangible investments and significant changes to the modus operandi of an agency. At the same time, we consider these investments necessary to avoid having telework exacerbate the looming of depersonalization, teleological efficiency, and control in bureaucratic organizations.

### Supplementary Material

Supplementary data is available at the *Journal of Public Administration Research and Theory* online.

### Data Availability

All data underlying this article, with the exception of complete interview transcripts, are available in the article, in its [supplementary material](#) and in the Harvard Dataverse, at <https://doi.org/10.7910/DVN/KR4BJA>. Complete interview transcripts cannot be shared publicly due to privacy reasons, as agreed with the partner organization and the individual interviewees.

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