

Four Lenses on People Management in the Public Sector: An Evidence Review and Synthesis

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Abstract

We review the literature on people management and performance in organizations across a range of disciplines, identifying aspects of management where there is clear evidence about what works as well as aspects where the evidence is mixed or does not yet exist. We organize our discussion by four lenses, or levels of analysis, through which people management can be viewed: 1) *individual* extrinsic, intrinsic, and psychological factors; 2) *organizational* people management, operational management, and culture; 3) *team* mechanisms, composition and structural features; and 4) *relationships*, including networks, leadership, and individuals' relationships to their job and tasks. Each of these four lenses corresponds not only to a body of literature but also to a set of management tools and approaches to improving public employees' performance; articulating the connections across these perspectives is an essential frontier for research. We find that existing people management evidence and practice have overemphasized formal management tools and financial motivations at the expense of understanding how to leverage a broader range of motivations, build organizational culture, and use informal and relational management practices. We suggest that foregrounding the role of relationships in linking people and performance—*relational public management*—may prove a fertile and interdisciplinary frontier for research and practices.

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1. Introduction

That people are an organization's greatest asset has become almost axiomatic among managers, but how to get the best out of employees is a practical and intellectual goal of the first order. This challenge is particularly salient in public sector organizations, where many of the managerial levers available to private sector firms are constrained by law, politics, or the differing nature of public sector tasks. Yet taking a systematic and evidence-informed approach to people management is difficult because the relevant academic literature is fragmented across disciplines and research areas. This makes it difficult not only to know what evidence exists to guide decision-making, but also how to fit those pieces of evidence into a broader understanding of the questions, approaches, and interventions that constitute the field.

This paper reviews and synthesizes key questions, research areas, and empirical evidence relevant to people management in the public sector. We organize our discussion around four lenses, or unit of analysis, through which researchers and policymakers have viewed issues of people management: 1) individuals; 2) organizations; 3) teams; and 4) relationships. Table 1 summarizes the structure of the paper as well as key insights arising from our review and synthesis.

While the breadth of the literature resists easy summary, our review highlights two themes. First, across all four lenses we observe a relative over-representation of research on formal structures and practices, and on financial incentives and extrinsic motivation in both research and practice. Although these are essential aspects of people management, they represent only a narrow slice of the factors that determine employee performance and the tools available to improve it, and arguably do not deserve their prominence as the first, almost default approach to improving performance. Our review therefore seeks to give a broader and more balanced picture of the problems and the evidence on people and performance in the public sector, which also encompasses factors like non-financial motivations, informal management practices, organizational culture, and the networks in which individuals and organizations are embedded.

The second theme of our paper is the potential value of thinking about people and performance through the lens of relationships among actors, rather than focusing on the actors themselves (whether individuals, organizations, or teams) in isolation. These relationships exist both *across* levels of analysis (e.g. the interconnection between the individual-level mechanisms of extrinsic and intrinsic motivation and organization-level performance management processes) and *within* levels of analysis (e.g. through the complementary and self-reinforcing processes among individuals through which individual behavior and norms constitute collective culture). Throughout our discussion of the individual, organization, and team lenses in sections 2-4, we highlight instances where such relationships are important. In section 5 we go a step further and discuss three types of relationships that can themselves be understood as units of analysis (networks, leadership, and individuals' relationships to their jobs), and review the relatively scarce literature that foregrounds relationships rather than actors. We conclude by suggesting that a relationship-focused approach to studying management in public organizations—*relational public management*—has the potential to open up new research angles as well as shed light on current debates.¹

¹ The advances made under the banner of relational sociology (White 1992; Mutch *et al* 2006; Crossley 2010; Padgett and Powell 2010), which is also founded on taking the relationship as the key unit for empirical analysis, provide inspiration for this suggestion as well as support for its potential usefulness.

Any paper on a topic as broad and complex as this one needs to be amply caveated. Our aim is not to provide a comprehensive review of the thousands of academic books and articles on management or human resources. Nor do we seek to recommend specific “best practices” or any type of formula for people management, as the complexity and contextual specificity of people management would render any such effort futile. Rather, we aim to present a focused and concise picture of the state of the literature that can serve as a summary of where evidence does and does not exist, as an entry point for more in-depth study, and—perhaps most importantly—as a framework to help readers organize their own questions, reflections, and experience. Our review pieces together elements from the disciplines of public administration, management, human resources, sociology, economics, psychology, and political science, but does not claim to be fully representative of any of them. And while our primary focus is on management in public sector organizations, we supplement our review with theory and evidence generated in private sector or non-profit organizations where these lessons are applicable to public sector contexts.

Table 1: Four Lenses on Improving People Management in the Public Sector

Lens	Major Theoretical Categories	Key Insights
Individual	<ul style="list-style-type: none"> • Extrinsic motivation • Intrinsic motivation • Psychological biases 	<ul style="list-style-type: none"> • Intrinsic motivations play a powerful role in employee performance, but how best to leverage them is less well understood • External non-financial rewards, such as social recognition, can be implemented more by public managers to increase intrinsic motivation and performance • Financial incentives can sometimes work to improve public employees’ performance, but only when their tasks correspond to simple, clear, measurable targets
Organization	<ul style="list-style-type: none"> • HR management • Operational management • Organizational culture 	<ul style="list-style-type: none"> • Organization-level processes have large effects on individual-level performance • Many of these processes are not classic HR functions, although appropriate HR policies are complements to many non-HR practices • Most research focuses on designing formal practices and incentives, with mixed success; organizations should seek to leverage informal practices and a broader range of motivations
Team	<ul style="list-style-type: none"> • Mechanisms and processes of teamwork • Team composition and structure 	<ul style="list-style-type: none"> • There is scarce evidence studying team dynamics in the public sector, despite their growing importance • Several performance levers are particularly effectual at teams and not relevant at individual or whole organizational levels; while the replication of several (organizational or individual) people management policies and practices to groups contribute to team effectiveness

		<ul style="list-style-type: none"> • The performance of teams heavily depends on their cognitive, affective and behavioral states and processes, not just their composition and external conditions to operate
Relationship	<ul style="list-style-type: none"> • Network • Leadership • Job characteristics 	<ul style="list-style-type: none"> • Performance is determined not just by individual, organizational, or team attributes, but also their location within and interactions with broader networks of stakeholders • Public sector leadership is decreasingly about the leader herself, and more about creating and curating the context within which other employees work (“relational leadership”) • Improving individuals’ performance on a task might involve not just changing the individual’s incentives or information, but also changing the task or the individual’s relationship to it

Source: Authors’ synthesis

2. People as Individuals

This section explores the evidence on the individual level-factors that influence employees’ performance in government organizations. We specifically focus on three areas: 1) extrinsic factors, such as monetary incentives (salary and bonuses) and institutional incentives (promotion, leisure benefits, training); 2) intrinsic factors, such as meaningful work, job satisfaction, and prosocial behavior; and 3) psychological factors such as cognitive biases, which can systematically affect public employees’ decision-making process and prevent them from performing in the most optimal level.²

Three main insights emerge from the literature. First, financial incentives—such as pay for performance— can sometimes work to improve public employees’ performance but are more applicable when employees’ tasks correspond to simple, clear, measurable targets. However, misaligned financial incentives can distort effort and may undermine intrinsic motivation. Second, there is strong evidence that intrinsic factors play a major role in motivating public employees and improving their performance, so better leveraging intrinsic motivations is a major opportunity for managers. However, there is more evidence about these motivations themselves than about how to effectively leverage them in management practice. Third, external non-financial rewards that leverage intrinsic motivation, such as social recognition, can be effective and avoid some of the drawbacks of financial incentives, and thus could be used more widely.

Table 2 summarizes both the structure of the section and some of the key insights arising from the review and synthesis of the individual-level factors that influence public employees’ performance.

² Besides the extrinsic and intrinsic factors, scholars such as Esteve and Schuster (2019) have distinguished that motivation of public employees can also be understood on whether they are driven by other- and self-interested reasons. Here we focus our review on the extrinsic and intrinsic motivators typology based on the Psychology and Behavioral Sciences scholarship (Ryan and Deci, 2000; Kamenica, 2012; Heyman and Ariely, 2004).

Table 2: Factors to improve public employees’ performance at the individual level

Factors	Key insights	Relevant literature
Extrinsic factors	Focus on: <ul style="list-style-type: none"> • Monetary incentives: salary, pay for performance, and bonuses. • Non-monetary incentives: promotion, leisure benefits. 	<ul style="list-style-type: none"> • Performance pay and productivity (Lazear, 2000) • Financial incentives (Dal Bó <i>et al.</i>, 2013; Bonner and Sprinkle, 2002) • Agency theory and non-monetary incentives (Whitford, 2018)
Intrinsic factors	Three main intrinsic motivators can influence public employees’ performance: <ul style="list-style-type: none"> • Meaningful work • Prosocial preferences • Job satisfaction 	<ul style="list-style-type: none"> • Intrinsic motivation (Ryan and Deci, 2000; Perry, 1996; Esteve and Schuster, 2019) • Prosocial behavior (Bénabou and Tirole, 2006). • Social incentives (Ashraf and Bandiera, 2018)
Psychological factors	Cognitive biases influence public employees’ performance by affecting their decision-making process: <ul style="list-style-type: none"> • Anchoring and halo effect • Status quo biases • Framing effect 	<ul style="list-style-type: none"> • Prospect theory (Tversky and Kahneman, 1981) • Cognitive biases and public service (Bellé <i>et al.</i>, 2017). • Behavioral public performance (James <i>et al.</i>, 2020)

Source: Authors’ synthesis

2.1 Extrinsic factors

Traditionally, organizations, in public and private sector, assume that an increase in the financial incentives will improve individual performance (Gneezy and Rustichini, 2000). Therefore, a person with a better salary doing the same activity will decide to work more and better than a person with a lower wage (Lazear, 2000; Ariely *et al.*, 2009b). This approach argues that external rewards, such as bonuses, an increase of salary, a promotion or any type of financial incentive, will trigger extrinsic motivation and increase an individual’s performance (Dal Bó *et al.*, 2013; Bonner *et al.*, 2000; Bonner and Sprinkle, 2002). For our review, we define extrinsic motivation as whenever an activity is done in order to attain a tangible external benefit. Therefore, extrinsic motivation leads individuals to perform a task or activity for the instrumental value that it has for achieving a goal.

To increase public employees’ productivity, governments have adopted pay-for-performance schemes (Weibel *et al.*, 2010; Varone and Giauque, 2001; Bellé and Cantarelli, 2015). There are several studies that have shown that reward performance based on outcomes can have a positive impact on productivity (Lazear, 2000; Ariely *et al.*, 2009b; Bandiera *et al.*, 2017). For example, Gertler and Vermeersch (2012) found that offering performance-based pay to health facility staff in health cares in Rwanda improved the provision of pre- and post- natal care (Bandiera *et al.*, 2017; Basing *et al.*, 2011). Likewise, Muralidharan and Sundararaman (2011) found that an increase in teachers’ salaries based on students’ test scores has a positive effect on teachers’ performance and students’ learning outcomes (Levitt *et al.*, 2016). However, some findings have shown that not every type of financial incentives works, well-designed financial rewards -simple and with measurable targets- linked to job outcomes are the ones that can have

a higher impact on improving public employees' performance (Bandiera *et al.*, 2017). In public organizations, identifying specific measurable targets can be a challenge, and pay-for-performance schemes can have even negative effects on work effort as they can crowd out the intrinsic motivation related to being a public servant (Gneezy and Rustichini, 2000; Gneezy *et al.*, 2011). For example, Georgellis, Iossa and Tabvuma (2011) found that higher predicted earnings and satisfaction with the extrinsic job characteristics reduce individuals' propensity to accept employment in the public sector. Likewise, Bellé (2015) found that monetary rewards had no significant effect on the intended effort of executives working for the Italian central government. In section 3 below, we explore further how these individual-level responses to incentives translate into the practical use of financial incentive schemes by public organizations.

Another way to incentivize individual performance with external rewards is through promotion in public organizations. Promotion opportunities matter as they behave as an extrinsic motivator that allows employees who perform to an exceedingly high level to see that their effort can be recognized, and that the advancement is a realistic expectation. For example, Karachiwalla and Park (2017) found, using a tournament model of promotion and retrospective panel data, that teachers increase effort in years leading up to promotion eligibility, and they reduce effort if they are repeatedly passed over for promotion. Likewise, Whitford (2018), in his research on tournaments, argues that promotion tournaments in public organization hierarchies might be more efficient than pay-for-performance schemes. This type of external incentives can have a smaller crowding out effect on intrinsic motivation (Coccia, 2019). In this sense, promotion can be an effective instrument to incentivize public employees' performance. However, promotion incentives need to be based on performance and not on seniority, education, or connections. In some countries, the lack of data to monitor and evaluate each individual's performance can be a challenge to implement successful promotion schemes based on merit. We discuss further about this in the next section.

2.2 Intrinsic factors

Individuals are not just motivated by self-interest and material concerns, but also by experiences, emotions, values, and identities (Frey and Oberholzer-Gee, 1997; Ryan and Deci, 2000; Paarlberg and Lavigna, 2010). Due to the nature of public service, intrinsic motivators play a vital role in improving public employees' performance (Kamenica, 2012; Heyman and Ariely, 2004; Esteve and Schuster, 2019). Here, we define intrinsic motivation as those internalized factors that spur effort without the inducement of a tangible external benefit.

Even though there is a vast literature that supports the importance of intrinsic motivators in public service, more knowledge is needed to evaluate and operationalize them into managerial practices in public organizations (Perry *et al.*, 2009; Perry & Wise, 1990). Three main intrinsic motivators can influence public employees' performance: first, when public employees feel that their effort is meaningful (Ariely, Kamenica, and Prelec, 2008; Grant and Gino, 2010); second, when they are committed with prosocial activities and desire to serve the public (Mellström and Johannesson, 2008; Ariely *et al.*, 2009a; Gneezy and Rustichini, 2000); third, when public servants feel a pleasurable or positive emotional state—job satisfaction—by doing their work. Additionally, social recognition of their effort and symbolic awards can also influence public employees' performance by leveraging their intrinsic motivation (Bradler *et al.*, 2016; Kosfeld and Neckermann, 2011).

According to Ariely, Kamenica, and Prelec (2008), work that is perceived to be meaningful is an essential ingredient to individuals putting out effort and performing well. A job is considered meaningful to the extent that it is recognized and/or has a purpose. Recognition means that some other person acknowledges the completion of the work. Such recognition does not have to be linked to any financial incentives or to any non-tangible rewards such as praise or appreciation. Purpose means that the employees understand how their work might be connected, even tangentially, to important objectives. The literature on the impact of meaning on behavior and performance is quite sparse, especially within economics and public administration. In economics, Loewenstein's (1999) study of mountaineering literature examines the role of meaning as an incentive. Preston (1989) and Leete (2001) look at whether individuals accept lower wages to work in the non-profit sector, while Stern (1999) examines whether scientists are willing to take a wage cut in order to be able to publish their work. In public administration, the work of Perry (1996) on public service motivation has studied the effect that meaningful public service has on performance (Perry *et al.*, 2009; Perry and Wise, 1990; Durant *et al.*, 2006). Considering this evidence, there are two central insights from goal-setting theory for increasing public employees' performance: 1) the importance of establishing clear, measurable, and meaningful goals (not outcomes); and 2) the importance of clarifying organizational goals (Latham, 2004; Locke and Latham, 1990; Locke and Latham, 2002; Verbeeten, 2008; Wright *et al.*, 2012).

Prosocial motivation can also be used to improve public employees' performance (Ashraf, 2013). Prosocial preferences consider the individual internal desire for approval and external willingness to help others, which is especially relevant for public employees. Weber [1978(1922)] and Durkheim (1956) see the commitment to public service as the crucial factor of effectively delivering services to citizens. The idea of mission motivation in bureaucracies is also emphasized by Wilson (1989) and Tirole (1994). Evidence shows that making salient the social impact of public service can affect the behavior and performance of public employees. For example, a study in a North Carolina hospital showed that prompts telling practitioners that hand hygiene protects patients from disease was much more effective at inducing them to wash, compared to merely reminding them that hygiene protects them (Ashraf, 2013). Likewise, the tools from value-based management can be useful to harness the positive aspects of public service—their impact on social and public good—and to connect with officials willing to help others (Paarlberg and Lavigna, 2010; Grant, 2008; Grant and Sumanth, 2009).

Research has shown that job satisfaction is positively related to motivation, job involvement, organizational citizenship behavior, organizational commitment, life satisfaction, mental health, and job performance. Job satisfaction is defined as “a pleasurable or positive emotional state, resulting from the appraisal of one's job or job experiences” (Locke 1976; Kim, 2004). This emotional response is also negatively linked to absenteeism, turnover, and perceived stress (Judge *et al.* 2001a; Kreitner and Kinicki 2001). Using the data collected from 298 schools and 13,808 teachers, Ostroff (1992) supported the positive relationships between employees' job satisfaction and organizational performance. Public managers can use the tasks and relationships embedded within jobs to try to improve officials' job satisfaction—an idea we explore further in section 5 below.

Finally, social recognition and peer appreciation, which are external non-financial rewards, can have internal effects on motivation and a positive impact on intrinsic motivation (Ashraf and Bandiera, 2018; Besley and Ghatak, 2008; Kosfeld and Neckermann, 2011). Research has shown that appreciation and recognition can be more important than good wages, job tenure,

and promotion opportunities. For example, Ashraf, Bandiera, and Jack (2014) experimentally confirmed that Zambian agents assigned to a nonmonetary reward treatment—namely, stars for performance plus a public ceremony for top performers—sold twice as many condoms as agents who were offered a modest financial margin on each pack traded. Such a study could help in public service contexts where management and performance could benefit from new techniques of motivation. Moreover, recognition may enhance intrinsic motivation, for instance, by making the positive attributes of the effort more salient.

2.3 Psychological factors

Psychological factors such as cognitive biases can have an impact on public employees' performance by systematically affecting their decision-making process and preventing them from performing at the most optimal level. In this section, we explore how these cognitive biases can influence public employees' behaviors in two main issues: 1) judging performance information, and 2) innovation and risk behaviors.

Scholarship from behavioral science and behavioral public administration has shown that individuals' perception and judgement of performance metrics can be affected by comparisons, points of reference, and framing of the information and emotions (Tversky and Kahneman 1981; James *et al.*, 2020). Fuenzalida, Van Ryzin and Olsen (2020) confirmed that officials are susceptible to framing effects when judging performance information. More specifically, the authors experimentally showed that public service managers and professionals tend to evaluate metrics about target achievement and job satisfaction more negatively when these performance rates are negatively presented (as opposed to their logically equivalent percentages presented under a positive frame). Bellé, Cantarelli and Belardinelli (2017) found that anchoring and halo effects systematically biased performance appraisal. On one hand, the anchoring effect affects public employees' decisions by establishing a starting point that will shape their subsequent estimations. For example, in an artefactual field experiment, Bellé, Cantarelli and Belardinelli (2017) identified that average scores were higher when public managers were exposed to a high rather than a low anchor. On the other hand, the halo effect influences the performance evaluation that public managers do by creating a general assessment of the different performance dimensions based on the like (or dislike) about a person and regardless of, or even contrary to, available information (Bellé, Cantarelli and Belardinelli, 2017; Batagglia, 2015).

Framing effects and status quo biases can affect the decision process of individuals regarding implementing new policies, taking more risks, and ethical behaviors (Tversky and Kahneman, 1981; Banuri, Dercon, and Gauri, 2019). Bellé, Cantarelli, and Belardinelli (2017), through a series of experiments, demonstrated that the way that policies' outcomes are presented (framing) could impact policymakers' evaluations and behaviors. Specifically, they highlighted the effect of gaining or losing framing. For example, they asked individuals to select one of two public policies: the expected value of the outcome of the two public policies was the same. Nonetheless, the outcome of one policy was expressed as a sure thing, whereas the outcome of the other policy was expressed in probabilistic terms (Bellé *et al.*, 2017; James *et al.*, 2020). The result of the experiments showed that individuals prefer the policy with the certain outcome when the outcomes are framed positively and prefer the policy with the probabilistic outcome when they are framed negatively. Gómez *et al.* (2018) conducted a lab experiment with police officers in Mexico and found that loss aversion framing motivates a more dishonest behavior. Thus, under the framing effect, decision-makers tend to be risk-

averse in the domain of gains and risk-takers in the domain of losses (Tversky and Kahneman 1981).

While there is thus ample evidence that psychological factors influence decision making in public servants (as in other groups), this literature has so far succeeded more in establishing that these factors exist than in providing actionable insights for managers on how to counteract or leverage them. This poses both a challenge and opportunity for the nascent field of behavioral public administration (Grimmelikhuijsen *et al*, 2017) as well as for social scientists and policymakers more broadly.

3. People in Organizations

This section reviews the evidence on how organization-level processes and practices affect individual-level performance. While the vast literature on this subject makes a comprehensive survey impossible, we highlight three areas of particular relevance for people management: 1) human resources management (including hiring, career progression, and performance management and performance-linked pay); 2) operational management (e.g. managing and monitoring work processes); and 3) organizational culture. We exclude external, environmental, and contextual factors that affect organizational performance but are typically outside the control of public sector managers.

Three broad themes emerge from the literature. First, the nature and quality of these organization-level processes and practices have large effects on the performance of individuals within the organization, even after controlling for individual characteristics and workforce composition. This implies that significant performance improvements are possible for public sector organizations even when resources and the ability to hire or fire employees are constrained—as they usually are in the public sector. Second, many processes that influence individual performance are *not* classic human resources functions, although appropriate human resource management practices may be complements to better operational management processes. Third, while much of research and practice focuses on using formal, financial incentives to improve performance, these are difficult to implement effectively, and their impacts are highly variable across contexts and functions—especially in core civil service settings. Non-incentive-based management practices may thus have a broader potential. The scope and modalities for this is a frontier of research.

3.1 Human resources management

A range of evidence has shown that organizational hiring processes can be used to draw in more skilled and motivated recruits—albeit in sometimes surprising ways. The classic theoretical dilemma in public sector hiring is whether extrinsic motivations crowd out intrinsically motivated recruits (e.g., Prendergast, 2007). On one hand, the evidence supports the idea that intrinsic factors such as public service motivation and person-organization fit play a major role in attracting high-quality applicants, and that mission alignment can substitute for extrinsic incentives (Perry and Wise, 1990; Besley and Ghatak, 2005). On the other hand, a growing body of studies—including several recent field experiments—find that extrinsic motivations either do not deter or may even crowd in recruits with higher motivation and/or subsequent job performance. This is true of resource-intensive types of extrinsic rewards like pay levels (Dal Bó *et al.*, 2013) and performance-linked pay schemes (Leaver *et al.*, 2019a), but also of non-financial extrinsic factors like career progression opportunities, personal

benefits, and person-organization fit (Chapman *et al.*, 2005; Ashraf *et al.*, 2015; Linos, 2018). While intrinsic sources of motivation are doubtless important, this emerging evidence suggests that organizations must develop recruitment strategies that are extrinsically appealing to the type of people with the intrinsic motivation that the organization wishes to attract. These extrinsic appeals include not just initial wage levels or performance-linked financial incentives, but also longer-term personal and professional development opportunities.

Despite the importance of career considerations, however, there is relatively little theory—and still less evidence—about how governments should design promotion and career progression structures. Within economics, a relatively small literature on internal bureaucratic labor markets and personnel economics in private firms (Lazear and Oyer, 2012; Waldman, 2012; Ke *et al.*, 2018) sets out some of the key theoretical considerations, such as the tension between productive efficiency and the use of promotions as a reward for good performance. However, these models focus on management levers (e.g., high-powered financial incentives, discretionary promotion and firing) that are not usually available in the public sector, which instead tends to be characterized by low-powered (if any) formal incentives, rigid career progression systems, and almost non-existent firing powers (except for discretionary political appointees). And while there are detailed descriptions about the different ways governments can organize career structures, such as with career vs. position-oriented systems or the use of generalist vs. specialist classes, there is little rigorous evidence about the effects of such design choices in all but the broadest terms. Nevertheless, careful studies like Teodoro (2009, 2011) and Bautista-Chavez (2020) do demonstrate that the career opportunities facing government managers—in particular the opportunity to advance by making diagonal moves across agencies and roles—can encourage managers to take risks by introducing innovations. In contrast, less flexible structures that allow only vertical advancement within a given career or agency might discourage such innovative behavior.

Aside from career progression, performance management and performance-linked pay are the main channels through which human resource practices affect employee performance. These are typically implemented through formal periodic appraisal cycles (usually annual) in which employees' performance is evaluated against a pre-defined set of targets (intended to be as objectively measured as possible), with some form of rewards and/or punishments linked to this evaluation. In addition to the empirical literature documenting individuals' responses to incentives discussed in section 2 above, there exist several studies which focus more on the organizational and managerial aspects of implementing financial incentive schemes in the public sector (Perry *et al.*, 2009; Gerrish, 2010; Weibel *et al.*, 2010; Hasnain *et al.*, 2014; Arnabaldi *et al.*, 2015). As with the individual-level literature, these studies tend to converge around the view that: 1) *well-designed* performance-linked pay can sometimes increase the performance of employees in lower-level, more frontline roles with more narrowly defined and measurable tasks; 2) in practice, many public sector performance-linked pay schemes are *not* well-designed or are misapplied and often fail to be implemented, lead to gaming or effort distortion, or harm employee morale; 3) there is less evidence on potential effectiveness for core civil servants in mid-level or senior managerial roles, as their tasks are even more difficult to pre-specify and measure objectively and their roles are more politicized. But while this literature has focused heavily on the role of financial incentives, performance management routines typically bundle these incentives with role-definition and performance review functions that might have their own independent effects (Williams and Yecaló-Teclé, 2019). This suggests that focusing on improving these aspects of performance management (without linking them to high-powered incentives) might be a more widely effective approach for non-frontline public service roles.

3.2 Operational management

Organizational management practices that do not bear directly on human resource issues, such as the management and monitoring of work processes, can nonetheless have a significant impact on the productivity of individual staff. Extensive literatures in economics, public administration, and even sociology documents the existence of what Gibbons and Henderson (2012) call “persistent performance differences” among similar organizations, and trace these differences back to differing levels of management quality and the organization of work (Meier and O’Toole, 2002; Boyne, 2004; Andrews *et al.*, 2010; Lazear and Oyer, 2012; various in Bloom *et al.*, 2014; McDonnell, 2017; Leaver *et al.*, 2019b). While empirical studies differ in the extent to which they can control for the quality of human resource inputs, these performance differences are still substantial even in the most tightly controlled studies (e.g., Syverson, 2004). This literature also finds strong evidence of complementarity between operational management and human resource management: some types of operational practices, such as more flexible production practices, benefit from supporting HR practices, and vice versa (Ichniowski and Shaw, 2003; Brynjolfsson and Milgrom, 2013). While this has been investigated for private firms, there is little rigorous evidence in the public sector about how the introduction to the public sector of operational practices like e-government, agile management, and remote working might interact with different approaches to people management.

Another theme that emerges from this literature is the tension between two distinct approaches to improving operational management: 1) process standardization, monitoring, and control; and 2) improving employees’ exercise of discretion and autonomy through flexibility, empowerment, and communication. As Miller and Whitford (2016) note, this tension aligns to an extent with an old debate within public administration about the nature of bureaucrats and their roles: are they lazy, self-interested agents, or diligent and public-spirited professionals? This dichotomy also points to the impossibility of separating out people management from operational management. While much of the empirical evidence within economics has found positive results from an incentives- and monitoring-driven approach in private firms, schools, and hospitals (see various in Bloom *et al.*, 2014), studies in public sector organizations and professional organization contexts have identified positive results from enhanced discretion and autonomy and even potential negative associations from over-reliance on top-down control approaches (Rasul and Rogger 2018; Rasul *et al.*, 2019; Bandiera *et al.*, 2020). As with the discussion on performance-linked pay above, this is perhaps best explained as a matter of different approaches being effective for different types of tasks or roles, but the potential interactions between management styles, task types, and individuals’ intrinsic motivations is a fertile ground for further research.

An even more nuanced question (and potential research frontier) relates to the interactions and blending of these different practices with each other: the optimal management mix surely includes elements of both standardization and monitoring as well as discretion and flexibility, but which elements, when, and why? This question is the subject of a great many management tracts, and countless qualitative studies shed light on specific aspects of it. But there is much less to draw on in terms of big-picture theory that could help elucidate general principles that could be used to navigate through the infinite range of practical dilemmas managers face, or quantitative studies that could be used to test hypotheses derived from these principles.

3.3 Organizational culture

A third organization-level factor that influences individual performance is culture, in the sense of shared expectations, norms, and cognitive frames among members of the organization (Schein, 1985).³ The same individual operating in different organizational cultures might react to other management practices (both HR-related and operational) quite differently, and engage differently in important behaviors like voice and innovation (Edmondson, 1999; Ashford *et al.*, 2009). Long a core concept in management studies (Schein, 1985) and governance (Grindle 1997), more recent quantitative studies have shown various dimensions of culture to directly affect measures of performance in settings like hospitals (Martinez *et al.*, 2015; Curry *et al.*, 2018) and to interact with the effectiveness of reforms to operational management in private firms (Blader *et al.*, 2020). Culture—the shared set of expectations, norms, and cognitive frames—is not just shaped by the members of an organization and by organizational-level processes and practices, but also shapes them.

But while few disputes that organizational culture matters for individual and organizational performance, much less is known about how these cultures transform over time and can be shaped—despite a nascent theoretical and lab-experimental effort to do so within economics (Chassang, 2010; Gibbons, 2020; Gibbons *et al.*, 2020). While most studies of organizational culture formation are long-term case studies of particular sets of high-performing organizations (e.g. Grindle 1997; Tendler 1997; McDonnell 2017), Azulai *et al.* (2020) conduct a randomized controlled trial with Ghana’s civil service and show that a one-day training emphasizing bottom-up culture change delivered to mid-level bureaucrats from across the service can lead to persistent and widespread improvements in organizational culture and performance. However, delivering the same training to existing work teams led to no changes in culture or performance. This illustrates both the possibility and the complexity of efforts to improve organizational cultures. In particular, the difference between the individual- and team-training branches of the intervention demonstrate that while culture is held by individuals and tends to cohere within organizations, it is produced by repeated interactions and social relationships within teams. To begin to unpack these complexities, we now shift our attention to two different levels of analysis: first to the dynamics of teams within an organization, and then to the existence of networks within and across them.

4. People in Teams

Teams represent an intermediate lens and unit of analysis, between the individual and the organization, for studying people management and performance. Teams are collective and inherently social, which makes them a prominent building block for studying how shared cognition and culture are built within organizations. They are also smaller in scale than organizations and thus analyzing them allows for within-organization heterogeneity, and because they can exist both within and across formal organizational sub-divisions they allow researchers and managers to think about performance more flexibly than does an official organizational chart.⁴ In practical terms, the growing importance of teams *per se* as a

³ Our focus is on organisation-specific elements of culture rather than general societal culture, although of course the latter may influence the former.

⁴ We follow Kozlowski and Ilgen (2006) in defining teams as “...(a) two or more individuals who (b) socially interact (face-to-face or virtually); (c) possess one or more common goals; (d) are brought together to perform organizationally relevant tasks; (e) exhibit interdependencies with respect to workflow, goals, and outcomes; (f)

managerial unit within the public sector has been driven by the need for more flexible and responsive organizational forms in government. Some authors even call for the adoption of agile government—emulating agile software development—as a new production method for public goods and services (OECD, 2015; Roseth, Reyes *et al.*, 2018; Mergel *et al.*, 2020).

In this section, we discuss some essential mechanisms and characteristics that contribute to team attitudes, behavior, and performance (Cohen and Bailey, 1997; Matthieu *et al.*, 2019). We organize our discussion into two main sub-sections: 1) the mechanisms through which teams work, including processes and emergent states; and 2) their composition and relationship to external structures.

Three key insights emerge from the literature. First, the relative novelty of teams as a recognized managerial unit in government is matched by the scarcity of public management studies focusing on this organizational level, which strikingly contrasts with the extensive literature on teams in other areas such as (private sector) management, psychology, and human resources.⁵ Second, there exist a variety of performance factors that are perhaps more important for teams than for other levels of analysis, such as developing shared group mindsets or peer-appraisals. Other important team-level levers interact with individual- and organizational-level practices, which speaks to the value of encouraging a networked and integrated approach for people management policies and practices in public organizations across levels of analysis. Third, empirical evidence confirms that “soft” factors like cognitive, affective and behavioral states and processes are often more important for teams’ effectiveness than formal rules, external conditions, or the characteristics of the teams’ members. This implies that there is more room for *managing* teams than what it is often assumed. Thus, the mechanisms by which team members interact to produce outputs and results primarily explain the gap between what a team can achieve—considering the abilities of its members, external conditions, and established rules—and the ultimate team effectiveness (e.g., Barron, 2003). This stresses the importance of relationships within teams.

4.1 Mechanisms of teamwork

The primary mechanisms underlying the operation of teams can be viewed in terms of *emergent states* and *team processes* (Marks *et al.*, 2001). Emergent states are cognitive, motivational, and affective states that vary dynamically—depending on the structural context and networks where the team performs, its inputs and compositional features, processes, and outcomes—and also determine the way a group works. Team processes are cognitive, verbal, and behavioral members’ interpersonal activities to organize taskwork to attain team goals, and therefore to convert team inputs to outcomes.

Two major emergent states for the effectiveness in groups are cohesion and trust. The former leads members to ask and offer opinions and hence to increase knowledge sharing (van Woerkom and Sanders, 2010), and the latter enables subjects to disengage from defensive behavior from the potential harm (they presume) by colleagues. This attitude leads individuals to focus their efforts on working collaboratively towards achieving group goals, rather than

have different roles and responsibilities; and (g) are together embedded in an encompassing organisational system, with boundaries and linkages to the broader system context and task environment” (p. 79) .

⁵ The health sector is an exception to this generalization, as teams are a prominent lens for examining management and performance in this area (e.g., Vashdi, 2013; Groeneveld and Kuipers, 2014; Van der Hoek, *et al.*, 2018; Van Zijl *et al.*, 2019).

pursuing personal interests (De Jong *et al.*, 2016; De Jong and Elfring, 2010; Jones and George, 1998; Joshi *et al.*, 2009; Mayer and Gavin, 2005; Dirks, 1999). On the other hand, team conflicts jeopardize team performance and deteriorate individual attitudes and behavior in teams, such as their motivation, satisfaction, and identification (Hülshager *et al.*, 2009; DeWit *et al.*, 2012). Disputes are especially compromising when they are relational and about interpersonal incompatibilities, tension, animosity, and annoyance among group members (Huang, 2015). Team empowerment is another emergent state positively associated with employees' performance as well as with a broad range of attitudes and behavior, including their job satisfaction and organizational commitment, while also preventing them from strain and turnover (Kirkman *et al.*, 2004).

Another primary emergent state when managing collective production in a group is achieving *shared cognition* on fundamental notions for its performance. Every individual has their interpretation of the world through knowledge structures or mental models, whereby they make inferences, predictions, and decisions (Johnson-Laird, 1983). However, shared mental models are the enabling knowledge to work as a team, including tasks, equipment, roles, goals, and abilities (Lim and Klein, 2006; Cannon-Bowers and Salas, 2001). Studies confirm the positive link between shared mental models and team performance (Ensley and Pearce 2001; DeChurch and Mesmer-Magnus, 2010), as well as the improvement they mean for several group processes that ultimately affect team effectiveness, such as the strategy formation and coordination, cooperation and communication (Matthieu *et al.*, 2000; Marks, *et al.* 2002). Transaction memory systems are vital to attaining shared mental models as they emulate a "group mind" by which teams collectively encode, store, and retrieve knowledge (Hollingshead, 2001). Thus, a tacit mechanism arises in the team assigning responsibility for knowledge and expertise to its members and bringing awareness about who knows what (Matthieu *et al.*, 2008). As a result, everyone has their own as well as others' information to access (Brandon and Hollingshead, 2004). Communication has an essential role in developing transaction memory systems overtime because discussions serve to continuously improve the mapping of team members about who is an expert in certain areas (Hollingshead and Brandon 2003; Lewis, 2004; Liang *et al.*, 1995; Rulke and Rau, 2000)⁶. Several empirical studies, mostly targeting regular individuals in labs or educational environments, confirm that better performing teams have well-communicated functional networks (Amelkin *et al.*, 2018; Brewer and Holmes, 2016; Marks *et al.*, 2002). An alternative approach to attaining shared cognition is reinforcing knowledge and information sharing because groups can make the most of the initial know-how and informational resources from their members, and therefore improve team effectiveness, creativity, and innovation (Mesmer-Magnus and DeChurch, 2009; Kessel *et al.*, 2012; Hulsheger *et al.*, 2009; Mesmer-Magnus and DeChurch, 2009). These sharing processes should center on unique knowledge and information to specific team members instead of resources commonly held by most individuals in a group (Mesmer-Magnus and DeChurch, 2009; Mesmer-Magnus *et al.*, 2011).

Within the range of processes affecting team effectiveness, two types are the most relevant: 1) those related to the planning of work; and 2) those linked to task accomplishment and performance monitoring. Indeed, a critical tool for improving team performance is the use of peer-review processes. There is evidence that developmental peer-appraisals improve several group attitudes and behaviors in teams, such as individual satisfaction, motivation, etc. (Druskat and Wolff, 1999). Studies also confirm the positive effect these practices have on the

⁶ This positive effect, however, tends to diminish as team subjects became more cognizant of each other's knowledge (Hollingshead, 1998; Hansen, 2002, Kanawattanachai and Yoo, 2007).

performance of team members. For instance, Behrens and Chemin (2019) show that non-binding per-reviews lead to higher effort and team productivity. These effects are more substantial for low-ability individuals in low-ability teams. Also, Ho (2017) experimentally confirmed that peer reviews improve the effectiveness and consistency of food safety inspections across public servants. Team performance is also structurally determined by the goals it must achieve. As these groups are usually subsets of larger organizational units in public agencies, there is a high risk of only relying on the super-ordinate institutional goals rather than developing particular group goals. Establishing clear goals for teams improves their performance (van de Hoek *et al.*, 2016) as well as individual-level performance (Sonnetag and Volmer, 2010)

4.2 Composition and structural features of teams

Team composition can be discussed in terms of three general themes: the team size, what characteristics of its members should be considered for enabling certain performance levels, and what are the distributional features of team members. Two significant streams of evidence regarding team size set up a balanced perspective here. Studies have confirmed the positive effects of larger teams on the performance of top management groups (Haleblian and Finkelstein, 1993) as well as on group productivity to monitor, classify, and map real-time information during humanitarian crises such as earthquakes or hurricanes (Mao *et al.*, 2016). Nonetheless, the advantages of a larger team size should be calibrated to the higher coordination, communication, and managerial demands it involves (Haleblian and Finkelstein 1993). Another critical issue refers to the features that members should have to achieve the functions and goals the group expects. Average cognitive abilities such as subjects' mental ability and expertise—i.e., experience and education—predict team performance (Stewart 2006). High conscientiousness, agreeableness, and extraversion of members also contribute to better performance of groups (Bell, 2007). Finally, there is no consensus about the effects of demographic and psychological diversity on team effectiveness (Opstrup and Villadsen, 2015; Bell *et al.*, 2011), but there is evidence in this line suggesting the importance of a balanced diversity of functions and roles in teams (Bell, 2007; Humphrey *et al.*, 2009). Such balance is attained by having the right mix of backgrounds in groups and ensuring the coverage of the functional areas required for their production.

The most salient structural factor regarding team effectiveness is its interdependence, which refers to features of the team—usually task-driven inputs such as resources, workflows, goals, and reward mechanisms—determining the interconnectedness of members (Wageman, 1999)⁷. Higher levels of task cohesion and interdependence positively affect group performance by creating explicit expectations about members' intensity of interactions to produce the expected outcomes (Castaño *et al.*, 2009; Chiocchio and Essiembre, 2009). Moreover, outcome interdependence encourages and incentivizes members to build and maintain relationships to achieve the expected collective results of the team pursues (Courtright *et al.*, 2015).

Teams thus form an important building block through which individuals are aggregated into organizations. Still, they nevertheless presume a sort of coherence, intentionality, and self-

⁷ Courtright *et al.* (2015) synthesize many forms in which scholars have defined, classified, and integrated various representations of interdependence into two main concepts: *task interdependence* and *outcome interdependence*. The former corresponds to how taskwork is designed so that members depend upon one another for access to critical resources and create workflows that require coordinated action, while the latter refers to the way the outcomes of taskwork are measured, rewarded, and communicated at the group level, as a way to emphasize collective outputs rather than individual performance (Courtright *et al.* 2015, p. 1828)

consciousness that does not always match the messy and piecemeal reality of life inside organizations. In the following section, we instead place relationships front and center as the lens through which people management is viewed.

5. People in Relationships

A fourth potential unit of analysis for analyzing people management is the *relationship*. Relationships link individuals, organizations, and teams to each other both across and within levels of analysis. But the characteristics of a relationship are not completely determined by the features of the actors that it links, nor by fully formalizable contracts or practices. Thus far in the paper, we have sought to show how an understanding of these interconnections can both complicate and enrich our view of the link between people management and performance at the individual, organization, and team levels.

In this section, we discuss two well-established areas of research in public sector people management that go a step farther by taking the relationship itself as their key unit of analysis: networks and leadership. We also propose that a relational perspective might also be applied to understanding how individual bureaucrats' tasks and roles shape and are shaped by these bureaucrats—in other words, bureaucrats' relationships to their own jobs. The remainder of this section discusses existing theory and evidence in these three areas, including that which does not explicitly take a relational perspective.⁸ Across each area, we find more evidence that relationships are substantively and analytically important than concrete guidance on what this means for good public sector people management. This suggests to us that *relational public management* may be a productive frontier for further work—an idea we expand more speculatively on in this paper's concluding section—but is not yet a fully developed approach or method.

5.1 Networks

Networks have been an important topic of study for public and private sector management since the 1990s, with foundational contributions in the public sector authored by Provan and Milward (1995), and O'Toole (1997). The literature on networks is vast, with several excellent existing literature reviews (e.g., Provan and Lemaire 2012; Hu *et al.*, 2016), so rather than attempt to survey this literature we instead highlight two aspects of it which are important for understanding public employees' performance: 1) the importance of inter-organizational networks for service delivery; and 2) the impacts of employees' personal and professional networks on their behavior.

⁸ While thinking of a relationship (rather than an actor) as a key unit of analysis may be foreign to many scholars, precedents do exist. Within organizational economics and theory, a small but influential stream of work conceives of employment as not just an economic relationship but also a social one (Baron and Kreps 2013). Within sociology, the influential school of relational sociology is premised on the foregrounding of relations rather than actors (e.g. White 1992; Mutch *et al* 2006; Crossley 2010; Padgett and Powell 2010). Within psychology, Fiske (1992) has developed a framework for a unified theory of social relations. However, neither field has applied this relational perspective questions of public sector management. Within public administration, the closest analogue that exists is the literature on inter-organisational policy systems and coordination (e.g. Milward 1982, O'Toole and Montjoy 1984, Jennings and Ewalt 1998, Bryson et al 2006).

The core insight of the literature on inter-organizational networks is that public service delivery outcomes are the result not just of actions taken by individuals or organizations in isolation, but of inter-related networks of government organizations, NGOs, communities, and beneficiaries. Provan and Lemaire (2012) refer to this as the “whole network” approach to network analysis, arguing that the appropriate level of study is the network (rather than individuals or organizations, in more common “ego-centric” approaches to networks). Schneider *et al.*’s (2003) work on stakeholder networks in estuary management provides an example of a case where policy outcomes can only be understood as the joint outcome of many organizational and individual decisions. Similarly, Kapucu and Garayev (2016) show how differing network structures affected disaster response in comparative case studies. This area of literature thus focuses mainly on within-level relationships among a particular set of actors, usually organizations or individuals.

From the “whole network” perspective, managers thus need to see their objectives not just as maximizing individual or organizational performance in a narrow sense, but of improving network effectiveness (Provan and Milward, 1995) and engaging in the governance and even design of networks (Rhodes 1996; Provan and Kenis, 2008). While the complexity of network functioning precludes simple recommendations for managers, the main implication from this literature is that public managers need to see themselves both as managers *in* networks (in the sense that their key objectives depend on actors outside their own organization) as well as managers *of* networks (in the sense of actively participating in, drawing resources from, and building such networks) (Provan and Lemaire, 2012).

The second key insight of the networks literature for public sector people management is that individual employees are embedded not just in formal organizational hierarchies, but also in intra-, inter-, and extra-organizational networks that might influence their behavior within their official organizational roles. For example, Moynihan and Pandey (2008) show that the strength of employees’ intra-organizational social networks is positively related to employee retention, while extra-organizational social networks are (contrary to theoretical expectations) only weakly associated with turnover intention. Understanding the structure and operation of these networks is of practical importance for managers as important exogenous contextual features that may interact with management strategies and tools, as well as potentially endogenous outcomes that they can seek to shape and manage over the medium- and long-term to improve public employees’ performance. These networks comprise not just other individuals but also other organizations, professional fields, and social communities, and thus represent both within- and across-level relationships. However, there exists relatively little empirical literature examining the effects of networks on actual service delivery outcomes (as opposed to intermediate outcomes like organizational commitment), and still less that rigorously evaluates the impacts of management strategies on network structure or outcomes, so this is an important gap for future empirical work.

5.2 Leadership as Relationship

There is a growing acknowledgement by public sector leadership scholars that relationships are important as a critical mechanism for connections between individuals within organizations and systems. While much leadership scholarship has viewed leadership as a matter of leaders’ individual characteristics or styles views of leadership, such as the debate between transactional and transformational leadership styles (Trottier *et al.*, 2008), recent literature has increasingly discussed “relational leadership” approaches. In contrast to the focus on the leaders themselves, relational leadership emphasizes: the importance of understanding

reciprocal relationships between leaders and followers; leadership as both “context-creating and context-dependent” (Wallace and Tomlinson 2010, 24, in Ospina 2008); and the idea that leadership emerges from particular situations as well as the context within which it operates (Hoffer Gittell and Douglass 2012). This shift towards relational approaches to leadership is partly in response to the limitations of individual-focused leadership styles (which serve vertically within bureaucratic forms) to address the evolving horizontal needs of public sector institutions to work laterally within the organization and collaboratively with other institutions (Drath *et al.*, 2008).

To delve further into how relational leadership approaches are increasingly emerging as critical components in the integrative application of leadership styles, the remainder of this sub-section explores literature on the intersection between leadership and relationships. We organize our discussion according to three questions: 1) what should a leader do? 2) how should a leader act (i.e. what leadership style she should adopt)? and 3) where within an organization should leadership come from?

The question “what should a leader do?” has been most prominently explored in the literature by examining the hypothesis that good leaders lead satisfied and motivated followers and manage organizations that successfully transition through change (Moynihan *et al.*, 2012; Paarlberg and Lavigna, 2010; Trottier *et al.*, 2008). At the operational level, evidence shows that good leadership entails ensuring that followers have the encouragement, support, necessary resources and skills to perform well, and at the executive level, they work towards facilitating change by instilling values and culture that drive organizational change (Van Wart, 2013). This focus of recent literature on leaders enabling and guiding organization members (as opposed to the common bureaucratic view of a leader as a holder of decision authority atop hierarchy) emphasizes the idea that good leadership is defined primarily by strong relationships, rather than the attributes of the leader in isolation (although the two are, of course, related).

With respect to how a leader should act, the literature suggests that leaders can benefit from creating high quality relationships with followers, because the positive nature of the relationship can motivate followers both to undertake their prescribed roles and to take on extra roles which contribute to organizational effectiveness (Hassan and Hatmaker, 2015). At the same time, leaders must strike a balance between building these relationships and fulfilling the various demands emerging from the multiple roles they play (Fernandez *et al.*, 2010; Pitts, 2005). This balancing act emphasizes the idea discussed above that managing networks (and managing *in* networks) is a key aspect of the complexity of modern leadership, especially in the public sector (Provan and Lemaire 2012). In terms of these multiple demands, research has therefore explored the challenges that managers face to balance the pressures of task accomplishment and people management (Fernández, 2008), to deliver results, communicate goals and ensure follower diversity and satisfaction (Pitts, 2005), while contending with a changing environment, evaluating progress and acting ethically with integrity (Ciulla, 2016). In terms of understanding the dynamics of relational leadership, studies on leader member exchange (LMX) leadership theory (which considers the quality of relationships between the leader and followers as the primary unit of analysis) have shown positive organizational outcomes on work meaningfulness (Hassan and Hatmaker, 2015) and organizational commitment (Tummers and Knies, 2013), which emphasizes the idea that building strong relationships is in many cases a way for leaders to achieve objectives rather than being seen as simply another competing demand.

The question of where within the organization leadership should come from has traditionally focused on leaders as individuals at the apex of hierarchies (Hennessey, 1998; Kaiser et al., 2008). However, due to challenges of contemporary governance, public organizations are increasingly seeking out collaborative arrangements that rely on the creation of horizontal relationships to meet demands for collaboration across agencies to conduct a myriad of functions. For instance, one of the dilemmas of leadership across networked systems is how to cultivate cooperation among public organizations to perform interdependent and interconnected tasks such as delivering services to neglected cities communities (Kenis & Raab, 2020), sharing power among partner organizations to allow for devolved and decentralized decision making in cross-sector collaborations (Crosby & Bryson, 2010), and sharing information for effective coordination across teams and networks (Jackson et al., 2010). In all these instances, forms of horizontal, collaborative and adaptive leadership styles, which are essentially relationship-based, have emerged as critical to the success of collaborative efforts of public organizations (Ansell and Gash, 2008; Emerson *et al.*, 2012). In this view, leadership is collective and the role of individual leaders is to manage these relationships, so leadership cannot come from the individuals atop organizational hierarchies alone.

Table 3. Selected literature on leadership

Questions	Key Insights	Overarching schools of leadership and related literature
What should a leader do?	Focus of leadership is to: <ul style="list-style-type: none"> Satisfy and motivate followers Lead organizational change 	<ul style="list-style-type: none"> Transactional Leadership (<i>Trottier et al.</i>, 2008) Transformational Leadership (<i>Andersen et al.</i>, 2018)
How should a leader act?	Behavior of a leader must balance: <ul style="list-style-type: none"> Achieving competing demands (task completion vs. people management) Managing interdependent relationships 	<ul style="list-style-type: none"> Management theory (<i>Fernandez</i>, 2008) Ethical leadership (<i>Ciulla</i>, 2016) LMX leadership theory (<i>Hassan and Hatmaker</i>, 2015)
Where should leadership come from?	Source of leadership emerges from: <ul style="list-style-type: none"> Horizontal relationships within the organization External relationships across public agencies 	<ul style="list-style-type: none"> Horizontal leadership (<i>Ospina</i>, 2008) Collaborative leadership (<i>Ansell and Gash</i>, 2008; <i>Crosby and Bryson</i>, 2010)

Source: Authors' synthesis

The complexity of leadership as a construct and the importance of context in determining optimal leadership strategies makes it difficult to draw simple recommendations or summaries for leaders. However, recent research on leadership has overall put forward a view of optimal leader behavior as less hierarchical, more supportive, more flexible, and more relationship-oriented than usually perceived, especially in bureaucratic settings. Adding more theoretical specificity to this broad recommendation and exploring how relational leadership styles might differ in effectiveness across contexts is a key task for future research in this area.

5.3 Individuals' Relationships to their Jobs

In both economics and public administration, roles and tasks have typically been viewed as given or fixed, and the responsibility of people management is to fill those jobs with bureaucrats with the appropriate personal characteristics or to establish processes that appropriately enable and incentivize them to undertake these pre-defined tasks. Foundational texts in both disciplines have theorized how the properties of tasks or roles (e.g., output or outcome observability, multi-tasking, coordination requirements, ease of monitoring) might interact with management practices and affect performance (e.g., Kaufmann, 1960, Wilson, 1989, Dixit, 2002). The implications of the differing nature of tasks across different institutions and different roles have permeated throughout scholarship on individuals, organizations, and teams – as the previous sections of this paper have discussed. Since public sector organizations typically cannot unilaterally change their core tasks in the same way a private firm might, the nature and organization of these tasks has been widely taken as given, and attention has thus focused on better staffing and managing these roles.

In sociology and management, however, the idea that the nature of roles is exogenous to the agents populating them has come under challenge. For instance, an influential literature on job crafting shows how individual workers “actively compose both what their job is physically, by changing a job’s task boundaries, what their job is cognitively, by changing the way they think about the relationships among job tasks, and what their job is relationally, by changing the interactions and relationships they have with others at work...Job crafters act upon the task and relational boundaries of the job, changing their identity and the meaning of the work in the process. In doing so, job crafters create different jobs for themselves, within the context of defined jobs.” (Wrzesniewski and Dutton, 2001, p. 180). While empirical studies of job crafting have focused mainly on private firms or NGOs (e.g. Berg *et al.*, 2008; Tims *et al.*, 2013; Rudolph *et al.*, 2017), Wrzesniewski and Dutton give examples of hospital cleaners who reconceive their job to integrate themselves into patient care and nurses who manage task boundaries in order to center care on patients, and Leana *et al.* (2009) discuss job crafting among teachers.

Recognizing the empirical prevalence of job crafting expands the scope of bureaucratic discretion beyond merely choosing how to execute a pre-defined task to choosing what tasks to accomplish, and makes organizational design a collective and ongoing process rather than a one-off management decision. This could be viewed as increasing the number of dimensions along which unmotivated employees can shirk, but perhaps more importantly also increases the potential value of empowering motivated employees to effectively exercise their discretion—particularly in the complex, coordination-intensive, high-discretion context of many public sector tasks. For instance, public managers can thus use job design principles to understand jobs as a collection of relationships as well as a collection of tasks, recognizing that employees are motivated to the extent to which they perceive that their jobs affect the well-being of others (Grant 2007; Hackman and Oldham. 1980; Paarlberg and Lavigna, 2010). For example, job tasks can be defined in a way that public employees can have an interaction with their direct beneficiaries, such as the general public or internal customers/colleagues, other agencies (Paarlberg and Lavigna, 2010). Indeed, bureaucratic entrepreneurship and innovation (e.g. Teodoro, 2009; 2011) could be viewed as an extreme example of job crafting, and there are obvious implications for the literature on job satisfaction and engagement discussed in section 2. Yet we have little theory or evidence about how job crafting manifests itself in core public sector roles, or about how managers should structure their organizations to facilitate performance-enhancing (and minimize performance-detracting) job crafting.

A broader implication of this relational perspective is that individuals' performance in a particular role or task is not fully determined by either the characteristics of the individual or the task, or even by static relationship measures like person-organization fit. Instead, individuals have active and dynamic relationships with their jobs—much as they operate within active and dynamic networks across and within organizations, active and dynamic relationships with their supervisors, and active and dynamic relational contracts and organizational cultures. The individual-job relationship does not fit simply into the distinction used elsewhere in this paper of relationships as being either across or within levels of analysis, as the “job” is not an actor but an inanimate abstraction. While this terminology might thus push the boundary of what “relationships” are, exploring the potential for studying and theorizing such relationships (and how to change them) may provide a fresh perspective for scholars and policymakers alike.

6. Conclusion

Our review demonstrates that there is a rich body of evidence about the effects of different people management practices that spans a wide range of academic disciplines and empirical contexts. Although the effectiveness of management practices is inherently variable across organizations, there is enough accumulation of evidence to be able to make some generalizations, such as the importance of intrinsic motivations and other insights highlighted in Table 1. Thus, effective people management requires far more than simply establishing a set of formal personnel rules and regulations. However, our review also shows that there still exist numerous evidence gaps, particularly once one moves away from formal management practices and financial incentives. In many cases, the best evidence available derives from private sector firms and thus may have debatable applicability to public sector contexts. By reviewing this evidence, we hope to have provided researchers and practitioners alike a clearer understanding of the evidence that does—and does not—exist on these topics, to serve as a guide for further research and practical experimentation.

While we have organized our review according to the four lenses of the individual, organization, team, and relationship, there are obvious interconnections across and within these different units of analysis in terms of how people management practices are related to performance. The effect of performance management practices adopted and implemented at the organization level, for example, is likely to depend on individuals' responses to incentives and feedback, on the effect of these responses on collaboration among work teams, and on how the leaders that carry out the policy relate to their employees. Moreover, substantial benefits might emerge when these practices are integrated and comprehensively implemented across different levels (organizations, teams, individuals, and relationships) simultaneously. While no one would deny the existence of these interconnections, and some empirical studies do take account of them either implicitly or in an *ad hoc* manner, we found few theoretical frameworks that clearly articulate the connections between these levels of analysis. Both at the conceptual and empirical level, then, there is immense scope for a new wave of research to enrich our understanding of how to piece together the disparate shards of evidence available to us.

Finally, we suggest that there is immense potential to develop further evidence on how management practices can affect relationships—as distinct from the actors that comprise them. Among our four lenses for examining people management, the lens of the relationship was the most unorthodox inclusion, as most theoretical and empirical treatments take actors (whether individuals, teams, or organizations) as their primary units of analysis. Yet we found ample evidence of how relationships across and within classes of actors mediated or moderated the

dynamics of people management and performance, and identified three sets of relationships that could themselves be understood as units of analysis. In other words, relationships are not epiphenomenal to individual behavior and organizational performance, they are often *active* elements. While foregrounding relationships through a relational approach to public management may be unfamiliar to many researchers, relationships and exchange are the building blocks of both social and economic interaction, so in this light emphasizing them seems only natural. Of course, this suggestion raises more questions than it resolves, and further specifying what such an approach (or approaches) might look like represents a long-term agenda, but we are confident that efforts to do so will lead to scholarship on public management that is both more nuanced and more useful.

References

- Aghina, W., De Smet, A., Lackey, G., Lurie, M., & Murarka, M. (2018). The five trademarks of agile organizations. *McKinsey Report*.
- Amelkin, V., Askarisichani, O., Kim, Y. J., Malone, T. W., & Singh, A. K. (2018). Dynamics of collective performance in collaboration networks. *PloS one*, *13*(10), e0204547.
- Andersen, L. B., Bjørnholt, B., Bro, L. L., & Holm-Petersen, C. (2018). Achieving High Quality Through Transformational Leadership: A Qualitative Multilevel Analysis of Transformational Leadership and Perceived Professional Quality. *Public Personnel Management*, *47*(1), 51–72. <https://doi.org/10.1177/0091026017747270>
- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, *18*(4), 543–571. <https://doi.org/10.1093/jopart/mum032>
- Ariely, D., Bracha, A., Meier, S., (2009a). Doing good or doing well? Image motivation and monetary incentives in behaving prosocially. *American Economic Review*. *99*:1, 544-555.
- Ariely, D., Gneezy, U., Loewenstein, G., Mazar, N., (2009b). Large stakes and big mistakes. *Rev. Econ. Stud.* *76*:451-469.
- Ariely, D., Kamenica, E., & Prelec, D. (2008). Man's search for meaning: The case of Legos. *Journal of Economic Behavior and Organization*, *67*(3–4), 671–677.
- Ashford, S.J., Sutcliffe, K. and Christianson, M.K. (2009) Peaking up and Speaking out: The Leadership Dynamics of Voice in Organizations. *Voice and Silence in Organizations*, 175-202.
- Ashraf N (2013) Rx: Human Nature: How Behavioral Economics Is Promoting Better Health Around the World. *Harvard Business Review* *91*(4): 119–125.
- Ashraf N & Bandiera (2018). Social Incentives in Organizations *Annual Review of Economics* *10*:439-463.
- Ashraf N, Bandiera O, and Jack K (2014) No Margin, No Mission? A Field Experiment for Public Services Delivery. *Journal of Public Economics* *120*: 1–17.
- Audenaert, M., Decramer, A., George, B., Verschuere, B., & Van Waeyenberg, T. (2019). When employee performance management affects individual innovation in public organizations: The role of consistency and LMX. *The International Journal of Human Resource Management*, *30*(5), 815-834.
- Azulai, Michel, Imran Rasul, Daniel Rogger, and Martin J. Williams. (2020). Can Training Improve Organizational Culture? Experimental Evidence from Ghana's Civil Service. Mimeo, October.
- Bandiera, O., Khan A., & Tobias J. (2017). Rewarding bureaucrats: Can incentives improve public sector performance?, *Policy Brief International Growth Center*.
- Bandiera, O., Best, M. C., Khan, A. Q., & Prat, A. (2020). *The Allocation of Authority in Organizations: A Field Experiment with Bureaucrats* (No. w26733). National Bureau of Economic Research.
- Banuri, S., Dercon, S., & Gauri, V. (2019). Biased policy professionals. *The World Bank Economic Review*, *33*(2), 310-327.
- Barron, B. (2003). When smart groups fail. *The journal of the learning sciences*, *12*(3), 307-359.
- Basinga, P., Mayaka, S. and Condo, J. (2011). Performance-based financing: the need for more research. *Bulletin of the World Health Organization*, vol. 89.
- Battaglio, P. R. (2015.). *Public Human Resource Management: Strategies and practices in the 21st century*. Thousand Oaks, CA: CQ Press.

- Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and performance in groups: a meta-analytic clarification of construct relations. *Journal of applied psychology*, 88(6), 989.
- Behrens, K., & Chemin, M. (2019). Non-binding Peer Review and Effort in Teams: Evidence from a Field Experiment. *Journal of Human Resources*, 0717-8907R2.
- Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: a meta-analysis. *Journal of applied psychology*, 92(3), 595.
- Bell, S. T., Villado, A. J., Lukasik, M. A., Belau, L., & Briggs, A. L. (2011). Getting specific about demographic diversity variable and team performance relationships: A meta-analysis. *Journal of management*, 37(3), 709-743.
- Bellé, N., & Cantarelli, P. (2015). Monetary incentives, motivation, and job effort in the public sector: An experimental study with Italian government executives. *Review of Public Personnel Administration*, 35(2), 99-123.
- Bellé, N., Cantarelli, P & Belardinelli, P. (2017). Cognitive biases in public policy and management: Evidence from ten artefactual field experiments. Presented at *PMRC 2017*, June 8-10 (American University, Washington DC)
- Bénabou, R. & Tirole, J. (2006). Incentives and prosocial behavior. *American Economic Review*, 96(5), 1652-1678.
- Berg, J. M., Dutton, J. E., & Wrzesniewski, A. (2008). What is job crafting and why does it matter. Retrieved from the website of *Positive Organizational Scholarship* on April, 15, 2011.
- Besley, T. J. and Ghatak, M. (2018). Prosocial Motivation and Incentives. *Annual Review of Economics*, Vol. 10, pp. 411-438, 2018. Available at SSRN: <https://ssrn.com/abstract=3245094> or <http://dx.doi.org/10.1146/annurev-economics-063016-103739>
- Blader, S., Gartenberg, C., & Prat, A. (2020). The contingent effect of management practices. *The Review of Economic Studies*, 87(2), 721-749.
- Bloom, N., Lemos, R., Sadun, R., Scur, D. & Van Reenen, J., (2014). The new empirical economics of management.
- Bonner, S.E. and Sprinkle, G.B. (2002), “The effects of monetary incentives on effort and task performance: theories, evidence, and a framework for research”, *Accounting, Organizations and Society*, Vol. 27, pp. 303-45.
- Bonner, S.E., Hastie, R., Sprinkle, G.B. and Young, S.M. (2000), “A review of the effects of financial incentives on performance in laboratory tasks: implications for management accounting”, *Journal of Management Accounting Research*, Vol. 12, pp. 19-64.
- Bozeman, B., & Su, X. (2015). Public service motivation concepts and theory: A critique. *Public Administration Review*, 75(5), 700-710.
- Bradler, C., Dur, R., Neckermann, S., & Non, A. (2016). Employee recognition and performance: A field experiment. *Management Science*, 62(11), 3085-3099.
- Brandon, D. P., & Hollingshead, A. B. (2004). Transactive memory systems in organizations: Matching tasks, expertise, and people. *Organization science*, 15(6), 633-644.
- Brass, Daniel J., Joseph Galaskiewicz, Henrich R. Greve, and Wenpin Tsai. (2004). Taking Stock of Networks and Organizations: A Multilevel Perspective. *Academy of Management Journal* 47(6): 795-817.

- Brewer, E. C., & Holmes, T. L. (2016). Better communication= better teams: A communication exercise to improve team performance. *IEEE Transactions on Professional Communication*, 59(3), 288-298.
- Bright, L. (2007). Does person-organization fit mediate the relationship between public service motivation and the job performance of public employees?. *Review of public personnel administration*, 27(4), 361-379.
- Brown, K.C., W.V. Harlow, and L.T. Starks. 1996. Of tournaments and temptations: An analysis of managerial incentives in the Mutual Fund Industry. *Journal of Finance* 51:85–110.
- Brynjolfsson, e. and Milgrom, P.. (2012) Complementarity in Organizations in R. Gibbons and J. Roberts, eds., *The Handbook of Organizational Economics*. Princeton University Press.
- Cannon-Bowers, J. A., & Salas, E. (2001). Reflections on shared cognition. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 22(2), 195-202.
- Castaño, N., Watts, T., & Tekleab, A. G. (2013). A reexamination of the cohesion–performance relationship meta-analyses: A comprehensive approach. *Group Dynamics: Theory, Research, and Practice*, 17(4), 207.
- Chapman, Derek S., Krista L. Uggerslev, Sarah A. Carroll, Kelly A. Piasentin, and David A. Jones. (2005). Applicant attraction to organizations and job choice: A meta-analytic review of the correlates of recruiting outcomes. *Journal of Applied Psychology* 90:928–44.
- Chassang, Sylvain. 2010. “Building Routines: Learning, Cooperation, and the Dynamics of Incomplete Relational Contracts”. *American Economic Review* 2010, 100:1, 448–465.
- Chiocchio, F., & Essiembre, H. (2009). Cohesion and performance: A meta-analytic review of disparities between project teams, production teams, and service teams. *Small group research*, 40(4), 382-420.
- Ciulla, J. B. (2016). Leadership Ethics : Mapping the Territory. *Business Ethics Quarterly*, 5(1), 5–28.
- Coccia, M. (2019). Intrinsic and extrinsic incentives to support motivation and performance of public organizations. *Journal of Economics Bibliography*, 6(1), 20-29.
- Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of management*, 23(3), 239-290.
- Courtright, S. H., Thurgood, G. R., Stewart, G. L., & Pierotti, A. J. (2015). Structural interdependence in teams: An integrative framework and meta-analysis. *Journal of Applied Psychology*, 100(6), 1825.
- Crosby, B. C., & Bryson, J. M. (2010). Integrative leadership and the creation and maintenance of cross-sector collaborations. *Leadership Quarterly*, 21(2), 211–230. <https://doi.org/10.1016/j.leaqua.2010.01.003>
- Curry, L., Brault, M., Linnander, E., ... Bradley, E. (2018). Influencing organisational culture to improve hospital performance in care of patients with acute myocardial infarction: A mixed-methods intervention study. *BMJ Quality and Safety*, 27(3), 207–217.
- Dal Bó, E., Finan, F., & Rossi, M. A. (2013). Strengthening state capabilities: The role of financial incentives in the call to public service. *The Quarterly Journal of Economics*, 128(3), 1169-1218.
- De Jong, B. A., & Elfring, T. (2010). How does trust affect the performance of ongoing teams? The mediating role of reflexivity, monitoring, and effort. *Academy of Management Journal*, 53(3), 535-549.
- De Jong, B. A., Dirks, K. T., & Gillespie, N. (2016). Trust and team performance: A meta-analysis of main effects, moderators, and covariates. *Journal of applied psychology*, 101(8), 1134.

- De Wit, F. R., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: a meta-analysis. *Journal of applied psychology*, 97(2), 360.
- DeChurch, L. A., & Mesmer-Magnus, J. R. (2010). The cognitive underpinnings of effective teamwork: a meta-analysis. *Journal of applied psychology*, 95(1), 32.
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological bulletin*, 125(6), 627.
- Detert, J., & Burris, E. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal*, 50(4), 869–884.
- Dirks, K. T. (1999). The effects of interpersonal trust on work group performance. *Journal of applied psychology*, 84(3), 445.
- Drath, W. H., McCauley, C. D., Palus, C. J., Van Velsor, E., O'Connor, P. M. G., & McGuire, J. B. (2008). Direction, alignment, commitment: Toward a more integrative ontology of leadership. *Leadership Quarterly*, 19(6), 635–653. <https://doi.org/10.1016/j.leaqua.2008.09.003>
- Druskat, V. U., & Wolff, S. B. (1999). Effects and timing of developmental peer appraisals in self-managing work groups. *Journal of Applied Psychology*, 84(1), 58.
- Duflo, E., Hanna, R. and Ryan, S. (2012). 'Incentives Work: Getting Teachers to Come to School'. *American Economic Review*, 102(4): Gertler and Vermeersch.
- Durant, R. F., Kramer, R., Perry, J. L., Mesch, D., & Paarlberg, L. (2006). Motivating employees in a new governance era: The performance paradigm revisited. *Public administration review*, 66(4), 505-514.
- Durkheim E. 1956. *Education and Sociology*. Glencoe, IL: Free Press
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383.
- Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. *Journal of Public Administration Research and Theory*, 22(1), 1–29. <https://doi.org/10.1093/jopart/mur011>
- Ensley, M. D., & Pearce, C. L. (2001). Shared cognition in top management teams: Implications for new venture performance. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 22(2), 145-160.
- Esteve, M., & Schuster, C. (2019). *Motivating Public Employees* (Elements in Public and Nonprofit Administration). Cambridge: Cambridge University Press. doi:10.1017/9781108559720
- Esteve, M., Urbig, D., Van Witteloostuijn, A., & Boyne, G. (2016). Prosocial behavior and public service motivation. *Public Administration Review*, 76(1), 177-187.
- Fast, N., Burris, E., & Bartel, C. (2014). Managing to stay in the dark: Managerial self-efficacy, ego defensiveness, and the aversion to employee voice. *Academy of Management Journal*, 57(4), 1013–1034.
- Fernandez, S. (2008). Examining the Effects of Leadership Behavior on Employee Perceptions of Performance and Job Satisfaction. *Public Performance & Management Review*, 32(2), 175–205. <https://doi.org/10.2753/pmr1530-9576320201>
- Fernandez, S., Cho, Y. J., & Perry, J. L. (2010). Exploring the link between integrated leadership and public sector performance. *Leadership Quarterly*, 21(2), 308–323. <https://doi.org/10.1016/j.leaqua.2010.01.009>
- Fiske, A.P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review*, 99, 689–723.\

- Fuenzalida, J., Van Ryzin, G. G., & Olsen, A. L. (forthcoming). Are managers susceptible to framing effects? An experimental study of professional judgment of performance metrics. *International Public Management Journal*, 1-16.
- Frey, B. S., & Oberholzer-Gee, F. (1997). The cost of price incentives: An empirical analysis of motivation crowding-out. *The American economic review*, 87(4), 746-755.
- Gauri, V., Jamison, J. C., Mazar, N., Ozier, O., Raha, S., & Saleh, K. (2018). *Motivating bureaucrats through social recognition: evidence from simultaneous field experiments*. The World Bank.
- Gertler, P., & Vermeersch, C. (2012). *Using performance incentives to improve health outcomes*. The World Bank.
- Georgellis, Y., Iossa, E., & Tabvuma, V. (2011). Crowding out intrinsic motivation in the public sector. *Journal of Public Administration Research and Theory*, 21(3), 473-493.
- Gibbons, Robert, Manuel Grieder Holger Herz Christian Zehnder. 2020. "Building an Equilibrium: Rules versus Principles in Relational Contracts." Mimeo.
- Gibbons, Robert and Henderson, R. (2012) What Do Managers Do? Exploring Persistent Performance Differences among Seemingly Similar Enterprises in R. Gibbons and J. Roberts, eds., *The Handbook of Organizational Economics*. Princeton University Press.
- Gibbons, Robert. 2020. "Visible Hands: Governance of Value Creation— Within Firms and Beyond." *American Economic Review Papers and Proceedings*, May.
- Gittell, H. (2012). Relational Bureaucracy : Structuring. *Academy of Management Review*, 37(4), 709–734. <https://doi.org/10.5465/amr.2010.0438>
- Gneezy, U., & Rustichini, A. (2000). Pay enough or don't pay at all. *The Quarterly journal of economics*, 115(3), 791-810.
- Gneezy, U., Meier, S., Rey-Biel, P., (2011). When and why incentives (don't) work to modify behavior. *Journal of Economic Perspectives.*, 25:4, 191-209.
- Gómez, M., Soto-Mota P., Jiménez-Pacheco, S. and Trujano-Ochoa D. (2018). *Dishonesty, loss aversion and elicitation of emotions: An experiment in a police institution in Mexico*. Presented in the XXII International Research Society for Public Management Conference, Edinburg, Scotland.
- Grant, A. M., Alexander, K., Griesbeck, A., Jaffe, A., Kagan, K., Kamin, M., ... & Swayne, J. (2007). Crafting task significance in service work: Meaning-making through difference-making. *Manuscript submitted for publication. University of Michigan*.
- Grant, A. M., and Sumanth J.. (2009). Mission Possible? The Performance of Prosocially Motivated Employees Depends on Manager Trustworthiness. *Journal of Applied Psychology* 94(4): 927–44.
- Grant, A. (2008). Employees without a Cause: The Motivational Effects of Prosocial Impact in Public Service. *International Public Management Journal* 11(1): 48–66.
- Grant, A. (2007). Relational Job Design and the Motivation to Make a Prosocial Difference. *Academy of Management Review* 32(2): 393–417.
- Grimmelikhuijsen, Stephan, Sebastian Jilke, Asmus Leth Olsen, and Lars Tummars. (2017). Behavioral Public Administration: Combining Insights from Public Administration and Psychology. *Public Administration Review* 77(1): 45-56.
- Grindle, M. S. (1997). Divergent cultures? When public organizations perform well in developing countries. *World Development*, 25(4), 481-495.
- Gupta, V., MacMillan, I. C., & Surie, G. (2004). Entrepreneurial leadership: Developing and measuring a cross-cultural construct. *Journal of Business Venturing*, 19(2), 241–260. [https://doi.org/10.1016/S0883-9026\(03\)00040-5](https://doi.org/10.1016/S0883-9026(03)00040-5)

- Hackman, J. Richard, and Greg R. Oldham. 1980. *Work Redesign*. Reading, MA: Addison-Wesley.
- Haleblian, J., & Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion. *Academy of management journal*, 36(4), 844-863.
- Hansen, M. T. (2002). Knowledge networks: Explaining effective knowledge sharing in multiunit companies. *Organization science*, 13(3), 232-248.
- Hasnain, Z., Manning, N., & Pierskalla, J. H. (2014). The promise of performance pay? Reasons for caution in policy prescriptions in the core civil service. *The World Bank Research Observer*, 29(2), 235-264.
- Hassan, S., & Hatmaker, D. M. (2015). Leadership and Performance of Public Employees: Effects of the Quality and Characteristics of Manager-Employee Relationships. *Journal of Public Administration Research and Theory*, 25(4), 1127-1155. <https://doi.org/10.1093/jopart/muu002>
- Hassan, S., DeHart-Davis, L., & Jiang, Z. (2019). How empowering leadership reduces employee silence in public organizations. *Public Administration*, 97(1), 116-131.
- Herzberg, Frederick, Bernard Mausner, and Barbara Bloch Snyderman. 1959. *The Motivation to Work*. 2nd ed. New York: Wiley.
- Heyman, J., & Ariely, D. (2004). Effort for payment - A tale of two markets. *Psychological Science*, 15(11), 787-793.
- Ho, D. E. (2017). Does peer review work: An experiment of experimentalism. *Stan. L. Rev.*, 69, 1.
- Hollingshead, A. B. (1998). Communication, learning, and retrieval in transactive memory systems. *Journal of experimental social psychology*, 34(5), 423-442.
- Hollingshead, A. B. (2001). Cognitive interdependence and convergent expectations in transactive memory. *Journal of personality and social psychology*, 81(6), 1080.
- Hollingshead, A. B., & Brandon, D. P. (2003). Potential benefits of communication in transactive memory systems. *Human communication research*, 29(4), 607-615.
- Hu, Qian, Sana Khosa, and Naim Kapucu. (2016). The Intellectual Structure of Empirical Network Research in Public Administration. *Journal of Public Administration Research And Theory*, 593-612
- Hu, Y., Huang, B., & Yang, G. Z. (2015, September). Task-priority redundancy resolution for cooperative control under task conflicts and joint constraints. In *2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)* (pp. 2398-2405). IEEE.
- Hülshager, U. R., Anderson, N., & Salgado, J. F. (2009). Team-level predictors of innovation at work: a comprehensive meta-analysis spanning three decades of research. *Journal of Applied psychology*, 94(5), 1128.
- Ichniowski, C., & Shaw, K. (2003). Beyond incentive pay: Insiders' estimates of the value of complementary human resource management practices. *Journal of Economic Perspectives*, 17(1), 155-180.
- James, O., Leth Olsen, A., Moynihan, D., & G. Van Ryzin, G. (2020). *Behavioral Public Performance: How People Make Sense of Government Metrics* (Elements in Public and Nonprofit Administration). Cambridge: Cambridge University Press. doi:10.1017/9781108761338
- Johnson-Laird, P. N. (1983). *Mental models: Towards a cognitive science of language, inference, and consciousness* (No. 6). Harvard University Press.
- Jones, G. R., & George, J. M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of management review*, 23(3), 531-546.

- Joshi, A., Lazarova, M. B., & Liao, H. (2009). Getting everyone on board: The role of inspirational leadership in geographically dispersed teams. *Organization science*, 20(1), 240-252.
- Judge, T. A., C. J. Thoresen, J. E. Bono, and G. K. Patton. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin* 127 (3): 376–407.
- Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The Forgotten Ones? The Validity of Consideration and Initiating Structure in Leadership Research. *Journal of Applied Psychology*, 89(1), 36–51. <https://doi.org/10.1037/0021-9010.89.1.36>
- Judge, T. A., S. Parker, A. E. Colbert, D. Heller, and R. Ilies. 2001a. Job satisfaction: A cross-cultural review. In *Handbook of industrial, work and organizational psychology*, Vol. 2, ed. N. Anderson, D. S. Ones, H. K. Sinangil, and C. Viswesvaran, 25–52. London: Sage.
- Kamenica, E. (2012). Behavioral Economics and Psychology of Incentives. *Annual Review of Economics*. 4:427-452
- Kanawattanachai, P., & Yoo, Y. (2007). The impact of knowledge coordination on virtual team performance over time. *MIS quarterly*, 783-808.
- Kapucu, Naim, and Vener Garayev. 2016. Structure and Network Performance: Horizontal and Vertical Networks in Emergency Management. *Administration & Society*, Vol. 48(8) 931–961.
- Karachiwalla, N., & Park, A. (2017). Promotion incentives in the public sector: Evidence from Chinese schools. *Journal of Public Economics*, 146, 109-128.
- Kaufman, H. (1960). *The forest ranger: A study in administrative behavior*. Johns Hopkins Press.
- Ke, R., Li, J., & Powell, M. (2018). Managing careers in organizations. *Journal of Labor Economics*, 36(1), 197-252.
- Kessel, M., Kratzer, J., & Schultz, C. (2012). Psychological safety, knowledge sharing, and creative performance in healthcare teams. *Creativity and innovation management*, 21(2), 147-157.
- Kim, S. (2004). Individual-level factors and organizational performance in government organizations. *Journal of public administration research and theory*, 15(2), 245-261.
- Kosfeld, B. M., & Neckermann, S. (2011). More Work for Nothing? Getting Symbolic Awards and Worker. *American Economic Journal: Microeconomics*, 3(3), 86–99.
- Kozlowski, S. W., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological science in the public interest*, 7(3), 77-124.
- Kozlowski, S. W., Bell, B. S., Borman, W. C., Ilgen, D. R., & Klimoski, R. J. (2003). Handbook of psychology: Industrial and organizational psychology. *W. Borman and D. Ilgen, New Wiley & Sons, Inc, New York*, 333-375.
- Kreitner, R., and A. Kinicki. 2001. *Organizational behavior*. 5th ed. Boston, MA: McGraw-Hill.
- Latham, G.P. (2004), The motivational benefits of goal-setting, *Academy of Management Executive*, Vol. 18 No. 4, pp. 126-9.
- Laughlin, P. R., Hatch, E. C., Silver, J. S., & Boh, L. (2006). Groups perform better than the best individuals on letters-to-numbers problems: effects of group size. *Journal of Personality and social Psychology*, 90(4), 644.
- Lazear, E. P. (2000). Performance pay and productivity. *American Economic Review*, 90(5), 1346-1361.
- Lazear, E.P. and Oyer P. (2012) Personnel Economics in R. Gibbons and J. Roberts, eds., *The Handbook of Organizational Economics*. Princeton University Press.
- Leaver, C., Ozier, O., Serneels, P., & Zeitlin, A. (2019a). *Recruitment, effort, and retention effects of performance contracts for civil servants: Experimental evidence from Rwandan primary schools*. Mimeo. Washington: World Bank.

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- Leete, L. (2001). Whither the nonprofit wage differential? Estimates from the 1990 census. *Journal of Labor Economics*, 19(1), 136-170.
- Leisink, P. L., Knies, E., & van Loon, N. (2018). Does public service motivation matter? A study of participation in various volunteering domains. *International Public Management Journal*, 1-21.
- Levitt, S., List, J. A., & Sadoff, S. (2016). The Effect of Performance-Based Incentives on Educational Achievement: Evidence from a Randomized Experiment. *Dolor*, 31(2), 70–76.
- Lewis, K. (2004). Knowledge and performance in knowledge-worker teams: A longitudinal study of transactive memory systems. *Management science*, 50(11), 1519-1533.
- Liang, D. W., Moreland, R., & Argote, L. (1995). Group versus individual training and group performance: The mediating role of transactive memory. *Personality and social psychology bulletin*, 21(4), 384-393.
- Lim, B. C., & Klein, K. J. (2006). Team mental models and team performance: A field study of the effects of team mental model similarity and accuracy. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(4), 403-418.
- Linos, E. (2018). More than public service: A field experiment on job advertisements and diversity in the police. *Journal of Public Administration Research and Theory*, 28(1), 67-85.
- Locke, E.A. (1976) The Nature and Causes of Job Satisfaction. In: Dunnette, M.D., Ed., *Handbook of Industrial and Organizational Psychology*, Vol. 1, 1297-1343.
- Locke, E.A. and Latham, G.P. (1990), *A Theory of Goal Setting and Task Performance*, Prentice-Hall, Englewood-Cliffs, NJ.
- Locke, E.A. and Latham, G.P. (2002), Building a practically useful theory of goal setting and task motivation, *American Psychologist*, Vol. 57 No. 9, pp. 705-17.
- Loewenstein, G. (1999). Because it is there: The challenge of mountaineering... for utility theory. *Kyklos*, 52(3), 315-343.
- Maciejovsky, B., Sutter, M., Budescu, D. V., & Bernau, P. (2013). Teams make you smarter: How exposure to teams improves individual decisions in probability and reasoning tasks. *Management Science*, 59(6), 1255-1270.
- Mao, A., Mason, W., Suri, S., & Watts, D. J. (2016). An experimental study of team size and performance on a complex task. *PloS one*, 11(4), e0153048.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of management review*, 26(3), 356-376.
- Marks, M. A., Sabella, M. J., Burke, C. S., & Zaccaro, S. J. (2002). The impact of cross-training on team effectiveness. *Journal of Applied Psychology*, 87(1), 3.
- Martinez, E., Beaulieu, N., Gibbons, R., Pronovost, P., & Wang, T. (2015). Organizational culture and performance. *AER Papers and Proceedings*, 105(5), 331–335.
- Mathieu, J. E., Gallagher, P. T., Domingo, M. A., & Klock, E. A. (2019). Embracing complexity: Reviewing the past decade of team effectiveness research. *Annual Review of Organizational Psychology and Organizational Behavior*, 6, 17-46.
- Mathieu, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *Journal of applied psychology*, 85(2), 273.

- Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of management*, 34(3), 410-476.
- Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: Who minds the shop while the employees watch the boss?. *Academy of management journal*, 48(5), 874-888.
- McDonnell, E. M. (2017). Patchwork leviathan: How pockets of bureaucratic governance flourish within institutionally diverse developing states. *American Sociological Review*, 82(3), 476-510.
- McDowell, T., Agarwal, D., Miller, D., Okamoto, T., & Page, T. (2016). Organizational design: The rise of teams. Deloitte Insights.
- Meier, K. J., O'Toole, J., & Lu, Y. (2006). All that glitters is not gold: Disaggregating networks and the impact on performance. *Public service performance: Perspectives on measurement and management*, 152-170
- Meier, K. J., & O'Toole Jr, L. J. (2002). Public management and organizational performance: The effect of managerial quality. *Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management*, 21(4), 629-643.
- Mellström, C., Johannesson, M. (2008). Crowding out in blood donation: was Titmuss right? *J. Eur. Econ. Assoc.* 6: 845-63.
- Mergel, I., Ganapati, S., & Whitford, A. B. (2020). Agile: A New Way of Governing. *Public Administration Review*.
- Mesmer-Magnus, J. R., & DeChurch, L. A. (2009). Information sharing and team performance: A meta-analysis. *Journal of applied psychology*, 94(2), 535.
- Mesmer-Magnus, J. R., DeChurch, L. A., Jimenez-Rodriguez, M., Wildman, J., & Shuffler, M. (2011). A meta-analytic investigation of virtuality and information sharing in teams. *Organizational Behavior and Human Decision Processes*, 115(2), 214-225.
- Moynihan, D. P., Pandey, S. K., & Wright, B. E. (2012). Setting the table: How transformational leadership fosters performance information use. *Journal of Public Administration Research and Theory*, 22(1), 143–164. <https://doi.org/10.1093/jopart/mur024>
- Moynihan, Donald P., and Sanjay Pandey. (2008) The Ties that Bind: Social Networks, Person-Organization Value Fit, and Turnover Intentions. *Journal of Public Administration Research And Theory* 18: 205-227.
- Muralidharan, K. and Sundararaman, V. (2011). Teacher Performance Pay: Experimental Evidence from India. *Journal of Political Economy*. University of Chicago Press.
- Mutch, Alistair, Rick Delbridge, and Marc Ventresca. (2006). “Situating Organizational Action: The Relational Sociology of Organizations.” *Organization* 13(5): 607-625.
- O'Toole, Laurence J. 1997. Treating networks seriously: Practical and research-based agendas in Public Administration. *Public Administration Review* 57:45–52.
- OECD (2015), Achieving Public Sector Agility at Times of Fiscal Consolidation. OECD Public Governance Reviews, OECD Publishing
- Opstrup, N., & Villadsen, A. R. (2015). The right mix? Gender diversity in top management teams and financial performance. *Public Administration Review*, 75(2), 291-301.
- Ospina, S. M. (2008). Collective Leadership and Context in Public Administration: Bridging Public Leadership Research and Leadership Studies. *Par*, 77, 275–287. <https://doi.org/10.1111/puar.12706.Collective>
- Ostroff, C. 1992. The relationship between satisfaction, attitudes, and performance: An organizational level analysis. *Journal of Applied Psychology* 77 (6): 963–74.

- Paarlberg, L. E., & Lavigna, B. (2010). Transformational leadership and public service motivation: Driving individual and organizational performance. *Public Administration Review*, 70(5), 710–718. <https://doi.org/10.1111/j.1540-6210.2010.02199.x>
- Perry, J. (1996). Measuring public service motivation: An assessment of construct reliability and validity. *Journal of Public Administration Research and Theory*, 1, 5-22.
- Perry, J. L., & Hondeghem, A. (Eds.). (2008). *Motivation in public management: The call of public service*. Oxford University Press on Demand.
- Perry, J. L., Engbers, T. A., & Jun, S. Y. (2009). Back to the future? Performance-related pay, empirical research, and the perils of persistence. *Public Administration Review*, 69(1), 39-51.
- Perry, J., & Wise, L. (1990). The motivational basis of public service. *Public Administration Review*, 50, 367-373.
- Pitts, D. W. (2005). Diversity, representation, and performance: Evidence about race and ethnicity in public organizations. *Journal of Public Administration Research and Theory*, 15(4), 615–631. <https://doi.org/10.1093/jopart/mui033>
- Prendergast, Canice. 2007. “The Motivation and Bias of Bureaucrats.” *American Economic Review* 97 (1): 180-196.
- Preston, A. E. (1989). The nonprofit worker in a for-profit world. *Journal of labor economics*, 7(4), 438-463.
- Provan, Keith G., Amy Fish, and Joerg Sydow. (2007). Interorganizational networks at the network level: A review of the empirical literature on whole networks. *Journal of Management* 33:479–516.
- Provan, Keith G., and H. Brinton Milward. (1995). A preliminary theory of inter-organizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly* 40:1–33.
- Provan, Keith G., and Patrick Kenis. (2008). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory* 18:229–52.
- Provan, Keith G., and Robin H. Lemaire. (2012). Core concepts and key ideas for understanding public sector organizational networks: Using research to inform scholarship and practice. *Public Administration Review* 72:638–48.
- Rasul, Imran, Daniel Rogger, and Martin J. Williams. (2019). “Management, Organizational Performance, and Task Clarity: Evidence from Ghana’s Civil Service.” Mimeo, December.
- Rasul, Imran and Rogger D. (2018) “Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service,” *Economic Journal* 128: 413-46.
- Rhodes, R. (1996). The new governance: Governing without government. *Political Studies*, 44, 652-667.
- Ritz, A., Brewer, G. A., & Neumann, O. (2016). Public service motivation: A systematic literature review and outlook. *Public Administration Review*, 76(3), 414-426.
- Roseth, B., Reyes, A. & Santiso, C. (2018). *Wait No More: Citizens, Red Tape, and Digital Government*. Washington DC: Inter-American Development Bank
- Rulke, D. L., & Rau, D. (2000). Investigating the encoding process of transactive memory development in group training. *Group & Organization Management*, 25(4), 373-396.
- Ryan, R., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67.
- Schein, E. H. (1985). *Organizational culture and leadership*. San Francisco: Jossey-Bass.

- Schneider, Mark, John Scholz, Mark Lubell, Denisa Mindruta, and Matthew Edwardsen. 2003. Building consensual institutions: Networks and the National Estuary Program. *American Journal of Political Science* 47:143–58.
- Sonnentag, S., & Volmer, J. (2010). What you do for your team comes back to you: A cross-level investigation of individual goal specification, team-goal clarity, and individual performance. *Human Performance*, 23(2), 116-130.
- Stern, Scott. (1999). Do Scientists Pay to Be Scientists? *NBER Working Paper* No. w7410. Available at SSRN: <https://ssrn.com/abstract=193448>
- Stewart, G. L. (2006). A meta-analytic review of relationships between team design features and team performance. *Journal of management*, 32(1), 29-55.
- Syverson, Chad. 2004. “Market Structure and Pro- ductivity: A Concrete Example.” *Journal of Political Economy*, 112(6): 1181–1222.
- Teodoro, M. P. (2009). Bureaucratic job mobility and the diffusion of innovations. *American Journal of Political Science*, 53(1), 175-189.
- Tirole J. 1994. The internal organization of government. *Oxf. Econ. Pap.* 46(1):1–29
- Trottier, T., Wart, M. Van, & Wang, X. (2008). Examining the Nature and Significance Government of Leadership Organizations in Essays on Leadership in in performance. *American Society for Public Administration*, 68(2), 319–333. <http://www.jstor.org/stable/25145605>
- Tummers, L. G., & Knies, E. (2013). Leadership and meaningful work in the public sector. *Public Administration Review*, 73(6), 859–868. <https://doi.org/10.1111/puar.12138>
- Tversky, Amos, and Daniel Kahneman. (1974). Heuristics and Biases: Judgement under Uncertainty. *Science* 185: 1124-1130.
- Tversky, Amos, and Daniel Kahneman. (1981). The Framing of Decisions and the Psychology of Choice. *Science* 211(4481): 453–58.
- Van der Hoek, M., Groeneveld, S., & Kuipers, B. (2018). Goal setting in teams: Goal clarity and team performance in the public sector. *Review of public personnel administration*, 38(4), 472-493.
- Van Wart, M. (2013). Lessons from leadership theory and the contemporary. *Public Administration Review*, 73(4), 553–565. <https://doi.org/10.1111/puar.12069.Lessons>
- Van Woerkom, M., & Sanders, K. (2010). The romance of learning from disagreement. The effect of cohesiveness and disagreement on knowledge sharing behavior and individual performance within teams. *Journal of business and psychology*, 25(1), 139-149.
- Vandenabeele, W. (2014). Explaining public service motivation: The role of leadership and basic needs satisfaction. *Review of Public Personnel Administration*, 34(2), 153-173
- Varone, Frederic, & Giauque D. (2001). Policy management and performance-related pay: Comparative analysis of service contracts in Switzerland. *International Review of Administrative Sciences* 67:543–65.
- Vashdi, D. R. (2013). Teams in public administration: A field study of team feedback and effectiveness in the Israeli public healthcare system. *International Public Management Journal*, 16(2), 275-306.
- Verbeeten, F. H. 2008. Performance Management Practices in Public Sector Organizations: Impact on Performance. *Accounting, Auditing & Accountability Journal* 21 (3): 427–454. doi:10.1108/09513570810863996
- W. Meehan & K. S. Jonker (2018). Team of Teams: An Emerging Organizational Model. *Forbes* <https://www.forbes.com/sites/meehanjonker/2018/05/30/team-of-teams-an-emerging-organizational-model/#2d6213b86e79>

- Wageman, R. (1999). Task design, outcome interdependence, and individual differences: Their joint effects on effort in task-performing teams (Commentary on Huguet et al., 1999).
- Wallace, Mike, and Michael Tomlinson. 2010. Contextualizing Leader Dynamics: How Public Service Leaders Endeavour to Build Influence. *Leadership* 6(1): 21–45.
- Wart, M. Van. (2003). Public-Sector Leadership Theory: An Assessment. *Public Administration Review*, 63(2), 214–228. <https://doi.org/10.1111/1540-6210.00281>
- Weber M. 1978 (1922). *Economy and Society*. Berkeley, CA: Univ. Calif. Press
- Weibel, A., Rost, K., & Osterloh, M. (2010). Pay for performance in the public sector—Benefits and (hidden) costs. *Journal of public administration research and theory*, 20(2), 387-412.
- White, Harrison. (1992). *Identity and control; a structural theory of action*. Princeton, NJ: Princeton University Press.
- Whitford, A. B. (2018). Incentives and tournaments in public organizations. *Perspectives on Public Management and Governance*, 1(3), 177-194.
- Williams, Martin J., and Liah Yecaló-Teclé. (2019). “Civil Service Reform and Performance Management in Ghana and Zambia Since 1990.” *IGC Working Paper*, December.
- Wilson JQ. (1989). *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books
- Wright, B. E. (2001). Public-sector work motivation: A review of the current literature and a revised conceptual model. *Journal of public administration research and theory*, 11(4), 559-586.
- Wright, B. E., Moynihan, D. P., & Pandey, S. K. (2012). Pulling the levers: Transformational leadership, public service motivation, and mission valence. *Public Administration Review*, 72(2), 206-215.
- Yousef, D. A. (1998). Satisfaction with job security as a predictor of organizational commitment and job performance in a multicultural environment. *International Journal of Manpower* 19 (3): 184–94.
- Zijl, A. L. V., Vermeeren, B., Koster, F., & Steijn, B. (2020). Interprofessional teamwork in primary care: the effect of functional heterogeneity on performance and the role of leadership. *Journal of Interprofessional Care*, 1-11.