Innovation, Voice, and Hierarchy in the Public Sector: Evidence from Ghana's Civil Service

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Abstract

Research on innovation in government often focuses on ideas introduced by senior leaders or managers, but ideas from public servants themselves are an important and underexplored channel for improving performance in government bureaucracies. We provide new evidence on the potential for bottom-up work process innovation, using data from 744 individual and team innovation plans and 51 qualitative interviews in Ghana's Civil Service. In contrast to common negative stereotypes of developing country bureaucrats, most officials do have meaningful ideas for improving performance. However, the overwhelming constraint to voicing these ideas is hostility by supervisors to new ideas from their subordinates. We argue that this anecdotally common yet understudied behavior is consistent with theories of psychological attachment to hierarchy rather than alternative theories rooted in material, structural, or cultural resistance to employee voice and innovation. We discuss implications for bottom-up work process innovation in government and interventions to promote it.

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1. Introduction

The idea that innovation can help improve public sector performance is widely embraced, but in practice many civil servants are often reluctant to voice their ideas within their workplace. A small but growing literature in public administration has examined innovation in government bureaucracies, often focusing on identifying the individual and institutional predictors of innovation (Damanpour and Schneider 2008, Walker 2008, Teodoro 2011, Torfing and Triantafillou 2016). In contrast, the mechanisms of ideation, voice, and implementation of work process innovations have remained understudied, resulting in a limited understanding of why and how public servants choose to voice new ideas – or not.

We address this gap by combining qualitative interviews on work process innovation in Ghana's civil service with quantitative analysis of over 700 innovation plans created by civil servants. We collect this data in the context of a large-scale productivity training program that encouraged lower- and middle-level civil servants to identify and implement work process innovations. We find that most officials do indeed have numerous ideas to make incremental but significant improvements in work practices, in contrast to prevailing perceptions of civil servants (especially in developing countries) as passive and indifferent to organizational performance. The types of new ideas officials propose tend to be meaningful but relatively narrow in scope, with the majority comprising ways to actually implement management practices that already exist on paper but not in practice, or work-arounds for various practical and logistical challenges. This focus on incremental improvement and implementation

contrasts the popular image of innovation in government as oriented around new technology, behavioral science, customer service approaches, or design thinking.

Even more importantly, we find that the overwhelming constraint to bottom-up innovation is hostility by senior officials to new ideas from their subordinates. Why would supervisors – who almost universally express a desire for their teams to perform better – be not just indifferent but actively hostile to such ideas? We outline four potential theoretical explanations and their empirical implications. Using rich qualitative and quantitative description, we argue that the observed patterns are inconsistent with potential material, structural, and cultural theories, but are consistent with a theory of supervisors' psychological attachment to hierarchy in which supervisors perceive employee voice as a psychological threat to their understanding of their position in the hierarchy.

While this hostility contrasts with the positive rhetoric around public innovation, it accords with a significant body of (mainly private sector) studies of voice or "speaking up" (Morrison 2014), which finds that employees often fear repercussions for extra-role behavior such as raising new ideas or concerns. Similarly, a parallel literature in organizational psychology finds that workers' perceived psychological safety is a key antecedent of risk-taking behaviors such as suggesting new ideas (Edmondson 1999). Although the psychological basis for managerial aversion to employee voice is the subject of a small literature in private sector management in OECD countries (Milliken *et al* 2003; Ashford *et al 2009*; Fast *et al* 2014), the scope for this mechanism is plausibly even larger in the public sector .

This paper contributes to the growing literature on innovation in the public sector. Our focus on using rich description to explore the characteristics and mechanisms of employee innovation

and voice contrasts with but complements existing scholarship in public administration which mainly uses quantitative methods to study the individual, organizational, and systemic determinants of innovation (Damanpour and Schneider 2008, Walker 2008, Salge 2010, Walker 2010, Teodoro 2011, Torfing and Tiantafillou 2016). Although public innovation is typically understood to take a range of forms, including new services or contractual forms (Walker 2008), we focus more narrowly on work process reforms. Our focus on lower- and middle-level bureaucrats contributes to the small body of studies on "bottom-up" innovation and voice (Fernandez and Moldogaziev 2012; Hassan 2015; Hassan *et al* forthcoming) and on the determinants and consequences of bureaucrats' sense of control over their work, as represented within this special issue by Honig (2018) and Kay *et al* (2018). A deeper understanding of innovation and voice by rank-and-file bureaucrats in the literature seems especially important since Moldogaziev and Resh (2016) find that these internally driven ideas are perceived to be more successful than those imposed top-down or by external actors. Finally, this paper extends the study of public innovation – which has so far been studied almost exclusively in OECD countries – to developing countries, and identifies supervisors' psychological attachment to hierarchy as a key potential constraint on bottom-up innovation. Given the salience of hierarchical modes of organization in the public sector and the renewed interest in the behavioral foundations of public administration, this is an important topic both for applied policy purposes and future research.

The remainder of this paper proceeds as follows. Section 2 presents our theoretical framework, and Section 3 gives details of the empirical context and method. Section 4 then provides a thick description of the types of innovations identified by civil servants and examines empirical support for potential theoretical explanations of managerial aversion to voicing innovations

from junior officials. Section 5 discusses implications for policy and research on voice and innovation in the public sector.

2. Voice, Hierarchy, and Innovation

2.1 Voice and Hierarchy

The willingness of non-managerial workers to raise new ideas is the subject of a considerable management literature on improvement-oriented or promotive voice (Morrison 2014). As exercising voice often comes with some degree of risk, workers' perceived psychological safety in their teams and organizations is an important factor driving voice behavior (Edmondson 1999; Edmondson and Lei 2014). Empirically, voice willingness is highly correlated within teams (Morrison *et al* 2011; Frazier and Fainshmidt 2012), and both the voice and psychological safety literatures emphasize that leaders' attitudes are highly consequential. Workers' willingness to speak up will thus be influenced not only by direct encouragement or discouragement from superiors but also because workers dynamically observe leaders' reactions to instances of voice from themselves or others and update their expectations accordingly.

But if promotive voice is good for team and organizational performance (Baer and Frese 2003, Nembhard and Edmondson 2006), why would leaders be hostile to it? This puzzle has received limited scholarly attention, particularly in the public sector context, and so there is little existing theory that explicitly addresses this question. We propose and distinguish between four sets of potential explanations, which we term *material*, *structural*, *cultural*, and *psychological*.

Managers may fear that employee voice behavior could reduce the *material* benefits they receive from their position, in two potential ways. First and most obviously, managers may fear that an ambitious employee voicing new ideas could lead to the employee being perceived as more competent than the manager and promoted above them in the hierarchy. While frequently suggested in casual discussions of the issue, the scope for this mechanism is limited in many public sector environments, which are often characterized by rigid seniority-based promotion systems. This mechanism also discounts the ability of managers to appropriate subordinates' ideas and present them as their own or as a result of their leadership, which could neutralize this threat or even allow managers to turn employee voice to their own advantage.

Alternatively, and perhaps more plausibly in our context, managers may fear that employee suggestions could harm them materially by reducing their opportunities for corruption or rent-seeking, for example if employees voiced suggestions for tightening cash management or procurement systems. Although we are not aware of any existing studies that have linked innovation aversion to rent-seeking or corruption, there is a large body of literature showing that bureaucrats may react to anti-corruption initiatives by resisting or adapting their behavior in order to preserve rents (Olken and Pande 2012). The idea that bureaucrats may resist change due to material self-interest is widespread in policy circles, and so it is plausible that supervisors could seek to preserve their rent-seeking opportunities by opposing employee voice, either specifically with respect to rent-seeking or more generally.

Alternatively, managers may be *structurally* unreceptive to employee voice and innovation because they see it as incompatible with the rule-based operations of the public sector. In this theory, managers see the risks of voice and innovation as greater than the benefits, and thus discourage their employees from engaging in it. For example, if managers perceive that there

is a risk that implementing an innovative idea might lead to punishment for contravening rules, and if there is uncertainty about what actions might be seen as a rule violation, then managers might rationally discourage innovation by employees under their supervision. While we are not aware of existing theoretical articulations of this idea in academic work, it broadly accords with the widespread perception of risk aversion among public sector employees (Albury 2005). As with the material explanations above, in this structural explanation for innovation aversion managers have a rational, self-interested reason for discouraging employee voice and minimizing innovative behavior: the avoidance of any risk of punishment for taking innovative actions. We refer to this mechanism as structural in the narrow sense that rigidity and adherence to rules are widely seen as built into the nature of public organizations, rather than the broader claim that all structural aspects of government bureaucracies are inimical to employee voice.

A third theory is that public sector workers and organizations have a generalized *cultural* aversion to innovation. Theories of organizational culture are premised on the idea that the shared expectations, norms, and cognitive frames that comprise culture act as drivers of behavior distinct from the factors that shaped the culture (Schein 1985). While material incentives or structural factors may influence organizational cultures, the key mechanism in the cultural view is that these norms take on a life of their own in that they shape behavior independently from such underlying factors. In this view, innovation and worker voice may simply be seen as "not the way we do things here" in many public sector organizations. This could accord with perceptions that public sector workers lack a sense of responsibility for organizational performance and improvement. Were this common understanding to be shared by members of an organization – supervisors and subordinates alike – it could discourage voice and innovation even if the content of the innovation threatened neither the material interests of superior officers nor any potential risk of rule violation.

Finally, supervisors' hostility to workers' innovation ideas may derive not from a rational cost/benefit calculation or a shared norm that innovation is inappropriate or undesirable, but from *psychological* factors related to their position in the organization's hierarchy. Particularly relevant is Fast *et al*'s (2014) theory of managerial aversion to employee voice that builds on theories of the internalization of role expectations (Katz and Kahn 1978), the need for self-efficacy (Cuddy *et al* 2011), and self-discrepancy theory (Higgins 1987) to posit that managers may view employee voice as a threat to their sense of self-efficacy and thus engage in ego defensiveness in response. In this view, employee voice threatens not the material interests of the supervisor, but their self-image as a leader who always knows best. The psychological aversion to promotive voice thus derives specifically from the supervisor's position in the organizational hierarchy, rather than from a commonly shared norm that innovation is undesirable. Similarly, while the existence of a hierarchy is a precondition for supervisors to have this psychological reaction to their place in it, this psychological mechanism is distinct from the existence of the hierarchy itself; all organizations have hierarchies, but not all organizations exhibit widespread resistance of supervisors to employee voice. Although the psychology of leaders' openness to employee voice is widely studied in private sector management (Ashford *et al* 2009; See *et al* 2011), there has been little attention to it in the public sector context, with Hassan *et al* (forthcoming) as a recent exception.

These four potential mechanisms are each associated with observable empirical conditions that would need to hold in order for the mechanism to be plausible. First, material explanations for supervisory hostility should only exist in contexts where supervisors stand some risk of material losses from subordinate promotive voice. Necessary conditions for this explanation are: either a) the possibility that voice could lead subordinates to be promoted above their

supervisors, which can be observed empirically from promotion patterns; or b) that the nature of subordinates' ideas threatens supervisors' rent-seeking opportunities, which can also be observed by examining whether the content of subordinates' ideas could impact the material benefits supervisors derive from their positions. Second, the structural explanation for supervisory hostility is rooted in the idea that supervisors rationally discourage subordinates' ideas that may push the constraints of existing rules and procedures. A necessary condition for this is that the nature of subordinates' ideas would indeed threaten to introduce practices that risk falling afoul of such regulations. If these ideas threaten to transgress such boundaries then supervisorial hostility to employee voice may be driven by a desire to avoid this, but if subordinates' ideas fit comfortably within existing rules then this explanation would be much less plausible.

Distinguishing between the cultural and psychological explanations is more nuanced. A key implication of the cultural explanation for supervisory hostility to innovation is that such beliefs and norms are shared throughout the organizational hierarchy, not simply held by managers. In contrast to the cultural explanation above, the mechanism of the psychological explanation is the interaction of public servants' psychological reactions with their position in the organizational hierarchy, so the emphasis is on *differences* in attitudes towards innovation and voice driven by status and hierarchy rather than on the shared norms throughout the organization that work process innovation in the public sector is undesirable. Empirically, to the extent that both supervisors and subordinates perceive promotive voice as undesirable, this would be evidence in favor of the cultural explanation, whereas differences in attitudes between supervisors and subordinates would be evidence in support of the psychological explanation. Similarly, if supervisors' psychological attachment to hierarchy is the cause of the observed

hostility, then they should have less favorable attitudes towards innovations proposed by subordinates than to ideas proposed by their peers or superiors.

2.2 Innovation Promotion

Innovation promotion interventions are surprisingly understudied in both the private and public sector contexts. Despite a large literature recognizing the importance of psychological safety for improvement-oriented voice in private firms (Detert and Burris 2007), we are not aware of any quantitative or qualitative studies of interventions aimed directly at innovation, voice, or psychological safety. The partial exceptions are two evaluations of organizational culture interventions in hospitals in the US (Martinez *et al* 2015; Curry *et al* 2018), each of which targeted improving psychological safety as one among several aspects of organizational culture. In the public sector, the most relevant intervention study of which we are aware is Andersen *et al*'s (2018) study of leadership training for managers in Denmark, which differs from this study in focusing on leadership style and skills rather than on innovation or employee voice.

Although this study does not aim to evaluate the training program that forms part of our empirical context, situating our analysis within the context of this training gives us an additional window on the causes and consequences of supervisorial resistance to employee voice. Indirectly, it also allows us an opportunity to better understand the mechanisms through which such training interventions – commonly used around the world – might promote work process innovation and employee voice (or fail to do so).

3. Context and Method

3.1 Context

The central government ministries that comprise the bulk of Ghana's Civil Service are responsible for setting policy direction for their sector, and for supervising policy implementation and service delivery by their subordinate agencies and departments. Ministries are divided into four to ten directorates or divisions, each headed by a Director. All Civil Service ministries are overseen by the Office of the Head of Civil Service (OHCS), which controls all promotions and personnel movements and creates, promulgates, and monitors a common set of *de jure* management processes across all ministries. In the Ghanaian context, "civil servants" refers specifically to staff in policymaking and/or oversight roles, largely desk-based rather than frontline, and based almost entirely in headquarters offices in the capital. We follow this usage throughout. We restrict our focus to professional-class civil servants, almost all of whom hold at least an undergraduate degree, but not including "sub-professional" officers like drivers and secretaries.

All officers below Chief Director (the bureaucratic heads of ministries) are career officers appointed through a meritocratic process, and enjoy security of tenure. The promotion process is largely based on seniority: officers become eligible to interview for promotion to the next grade after a fixed number of years. While officers can and do fail to be promoted for poor performance either in the interview itself or in the preceding years, in which case they can re-interview for promotion in the subsequent year(s), this occurs in a minority of cases and the *de facto* presumption for most officers is that promotion through the ranks will proceed essentially according to the seniority-based schedule. Most importantly for our analysis, it is nearly impossible for an officer to be promoted *ahead of* the seniority-based schedule – although such "out of turn" promotions are legally possible, we found no evidence of any case of this actually happening. This means that there is little realistic possibility of a subordinate being promoted

above their superior officer, so that relative positions in the overall hierarchy are almost entirely fixed.

One component of our data collection (discussed in detail below) took place in the context of Ghana's main in-service training program for civil servants, the Scheme of Service (SoS) training. SoS trainings are delivered by Ghana's Civil Service Training Centre (CSTC), the Civil Service's primary institution for professional development. Each officer is required to undertake a two-week SoS training once every three years in order to be eligible for promotion to the next grade. SoS trainings are typically conducted in groups of 20-30 individuals who share the same grade (seniority) but work in various organizations across the Civil Service. We refer to these as "individual" trainings. This two-week training includes one day of training on productivity. The curriculum for this one day of productivity training includes both conceptual and motivation elements as well as practically oriented discussions around how to improve work processes in their own organizations and teams.[i] Participants each completed a two-page "Action Plan" identifying a real productivity bottleneck in their organization and creating a plan to address it (see template in Appendix A).[ii] This Action Plan was not just an abstract exercise; participants were strongly encouraged to implement it when they returned to their organizations after training, and were informed that they might be questioned about their Action Plan by promotion interview panels in the future.

Following each SoS training during our study period of early 2017 to early 2018, roughly 40 percent of trainees were randomly selected to participate in a team-level productivity training, which consisted of the same training content but delivered to all members of one division from most to least senior (typically five to 20 individuals in total) rather than to a group of individuals of the same grade but from different organizations (as in the "individual trainings"). We refer

to these as "team" trainings. The only difference in training content was that teams created a single group Action Plan for their division, rather than separate individual plans. These division-level trainings typically took place three to six weeks after the individual-level training. In total, approximately 1200 civil servants – roughly one-third of eligible Ghanaian civil servants (professional-class officers in headquarters offices) – participated in either the individual or team trainings during the study period, so this was a large-scale and broadly targeted program.

3.2 Empirical Method

The empirical analysis of this study is based on two main data sources: the Action Plans produced by civil servants in these trainings, and interviews with civil servants (some but not all of whom were involved in the trainings). We describe each in turn.

We collected and coded the Action Plans of all individuals that went through the individual training and all divisions that went through the team training. Each Action Plan template was two sides of A4 paper in length. Appendix A presents these templates. In total we were able to collect and code 650 individual Action Plans and 94 team-level Action Plans.[iii] This represented 94 and 95 percent of individuals and teams that attended each training type, respectively. Coding was conducted mainly by a set of civil servants from OHCS, CSTC, and the Management Services Department who had expertise in training, productivity, and management analysis, and were designated by OHCS to support the research. These coders operated under the supervision of research assistants, and participated in an initial training and follow-up training.

The coding scheme was developed by the authors and research assistants, based on our discussions and engagement with trainers and trainees as well as a preliminary review of an initial set of Action Plans. This scheme was then piloted and adapted in collaboration with the civil servant coders. The variables coded included the main area identified for change, the nature and scope of the proposed change, key obstacles identified, and key obstacles identified. Full details of the coding variables, options, and process are presented in Appendix B.

For the qualitative interviews, we randomly selected a subset of nine ministries in which to conduct interviews.[iv] To improve comparability across ministries, we took advantage of Ghanaian ministries' semi-standardized divisional structure and conducted all our interviews with Policy, Planning, Monitoring, and Evaluation (PPME) divisions in each ministry, which are responsible for the core tasks of designing policy, monitoring, and reporting on performance across the ministry and its sector agencies. This meant that all interviewees were responsible for a similar range of tasks in their day-to-day work, and thus had similar scopes for innovation.[v] Since personnel management and promotion for all ministries is handled centrally by OHCS, all interviewees operate under a similar set of formal incentives and regulations for innovation- and productivity-related behaviors.

In order to enable us to ask about innovation in the civil service in the absence of substantive influence or priming by the trainings, the random selection of ministries was stratified according to the trainings to which members of the PPME division of each ministry had been exposed. We thus selected six ministries whose PPME divisions had had at least one member undertake the individual SoS training, but only three of these divisions had undergone the follow-up team training. In addition, we selected three ministries in which no officer in the

PPME division had undergone training in that year. In total we interviewed 51 officers across these nine divisions, some of them multiple times.

Table 1: Interview Coverage and Sample Questions

Topics	*Sample Questions*
• Work processes	What does your work entail, on a day-to-day basis?
• Productivity	How has the Scheme of Service training that you received affected you with respect to productivity?
• Bottlenecks and constraints	Can you tell me about a particular challenge you face in the workplace and what effect this has?
• Experiences of and attitudes toward new ideas	How easy is it to talk about new ideas or innovations in your workplace? What concerns might a junior officer have in approaching their superior with a new and unsolicited idea?
• Experience of the SOS training (if applicable)	How do you feel the training has affected you in relation to think about new ideas and implementing them? As a result of the training on productivity have you changed any work processes you do as a result?

Note: Topics and sample questions are indicative, as interviews were conducted in a semi-structured fashion. Full interview guides are available in Appendix C.

In each of these nine divisions, we conducted in-person, semi-structured interviews with up to five individuals. We ensured that this included the Director of each division, and that officers from across the seniority spectrum were represented. Where an officer in the division had

participated in individual-level SoS training at CSTC, we ensured that this officer was interviewed. All interviewees were assured that their responses would be anonymous and non-attributable, to enable interviewees to speak freely and to assuage concerns about supervisors' and colleagues' reactions. Most interviewees discussed their experiences openly and frankly, even when discussing issues that painted their colleagues or division in an unflattering light, and triangulation of accounts across individuals revealed little evidence of deliberate or subconscious misrepresentation or bias among respondents.

The interviews consisted of open-ended questions with probing follow-up by the interviewer, covering a progression of topics: productivity, work processes, bottlenecks, and constraints in the division's work; experiences of and attitudes toward new ideas and how they do or do not get voiced and implemented in the division; and the officer's experience in the training programs and subsequent follow-up. Table 1 summarizes the coverage of a typical interview and sample questions, and the full interview guide is presented in Appendix C. Interviews were not recorded because many civil servants were unwilling to speak openly while being recorded, so interviews were transcribed by hand as closely as possible. For approximately one-third of interviewees we conducted follow-up interviews to probe further based on findings from the first round of interviews. We triangulate this interview data with the Action Plans in order to examine their accuracy and potential biases.

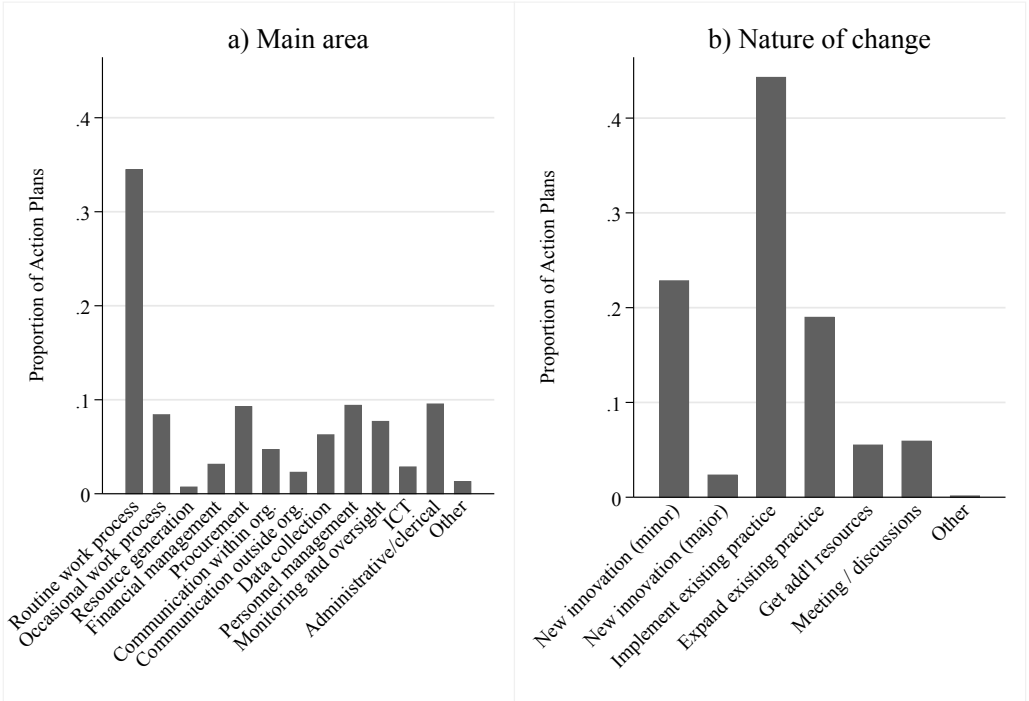
4. Innovation Ideas and the Dynamics of Voice and Hierarchy

This section draws on these two sources of data to provide a thick description of proposed work process innovations in Ghana's Civil Service and to examine the empirical support for the four potential mechanisms underlying supervisory hostility to employees' promotive voice.

4.1 Types of Innovation Ideas

The types of work process innovations proposed by officers are diverse, as illustrated by the broad distribution of focus areas in Panel (a) of Figure 1. These areas mainly correspond to the functions and responsibilities of the officer or division in question, with routine work processes accounting for the largest share. When we examine the nature of the proposed change in Figure 1, Panel (b), however, two categories stand out: proposals to actually implement management practices or processes that nominally exist already, and proposals for ways to work around logistical gaps or the failings of other work units. We discuss each in turn.

Figure 1: Types of Ideas Proposed in Action Plans



Note: Bars show proportion of Action Plans falling in each category. See Appendix C for details of coding.

As panel (b) of Figure 1 shows, 44 percent of the proposed work process innovations in the Action Plans concern ideas for how to implement processes or practices that exist on paper for their organization or division, but are not currently executed in practice. For example, many

Action Plans suggest appropriately handling and filing documents to ensure they are easily located and accessible – a process which should already exist, but is often neglected. While the prevalence of implementing existing practices as a category of "innovation" or "new idea" may seem contradictory, it is consistent with the idea that the gap between *de jure* and *de facto* procedures in developing country governments is a salient problem in developing countries (Andrews 2013). On a theoretical level, considering ideas for how to actually implement nominally existing practices as innovations fits comfortably within existing definitions: for example, Walker defines innovations as "new ideas, objects, and practices…which are new *for the unit of adoption*" (2008, 592; emphasis added). Work process innovation is thus most meaningfully understood relative to the existing practice of the organization in question, not necessarily relative to "best practice" in an international or even national sense.

Aside from implementing existing practices, the other significant category of proposal contained in the Action Plans constitutes minor innovations: ideas that would change work processes in ways that were either marginal or narrow in scope. While these ideas were also diverse in their focus areas, drawing qualitatively on the Action Plans and interviews reveals a common theme: many proposed work process innovations are in fact creative ways to work around logistical constraints or around the failings of other work units with whom the individual or division must cooperate. These *compensatory innovations* constitute the second major type of work process innovation identified by civil servants in our sample, alongside the implementation of nominally existing work practices.

For example, many interviewees and Action Plans identified as a constraint that other organizations or divisions frequently delay significantly in submitting information that is needed to prepare reports or pieces of analysis. Officers suggested various proactive strategies

for avoiding these delays, such as sending out a schedule of all reporting deadlines at the beginning of the year to facilitate planning and informal follow-ups, rather than having to seek their supervisors' signatures for formal letters for each individual deadline (Interview D2). Another common constraint identified by officers is equipment deficiencies, with compensatory innovations thus seeking ways to achieve a given function with little resource outlay. For example, an officer noted that the ministry's poor system of record-keeping made it difficult to retrieve needed documents, and proposed that their division start routinely scanning important files so that they would be at hand when later needed (Interview G1).

These compensatory ideas are more mundane than the types of large-scale digital government or business process reengineering efforts on which the innovation literature often focuses. However, they are nonetheless innovative and meaningful relative to the context in which they are proposed and the scope of responsibilities of the lower- and middle-level officers who comprise the sample of this study. Although these ideas are not transformative, they constitute incremental steps towards better management and greater efficiency. At the same time, their narrow scope and practical orientation also reflects the limitations of these bottom-up efforts at work process innovation in an environment where there is little encouragement to do so and a low likelihood of support from superiors with greater scope of authority – a theme explored in Section 4.2 below.

Before proceeding to examine whether, how, and why officers actually voice these ideas (or not), a final descriptive question concerns the extent to which ideation actually occurs in the course of officers' routine work. The trainings and Action Plans both required officers to come up with a new idea and constrained the number of such ideas they could report, making it potentially misleading to use the Action Plans as evidence of how innovative officers are. The

interview data is a useful complementary data source in this respect, particularly with the respondents from the comparison divisions in which no member had participated in the productivity training recently and thus had not been primed to identify potential work process improvements.

We found that almost all respondents did have multiple innovation ideas – in divisions exposed to training as well as those not exposed – and could trace these ideas to particular moments in their work experience, suggesting that these ideas are not merely superficial responses to priming or training requirements. While some officers were of course more creative or active than others in identifying work process innovations, the ideation of potential innovations and work process improvements at lower- and middle-levels of the Ghanaian civil service appears to be a broad-based phenomenon rather than the product of a small number of exceptionally entrepreneurial individuals.

4.2 Supervisorial Hostility to Employee Voice

The abundance of officers' ideas contrasts sharply with their reluctance to voice them. Indeed, the majority of the ideas brought up by respondents in interviews had been neither voiced nor implemented, and interviewees almost universally pointed to supervisorial hostility as the overwhelming explanation. For example, one officer reported that supervisors "do not want to accept or welcome ideas from people that are below them" (Interview D3), and another explained "As director they are the gods and so for you to suggest things, they will think 'Who are you?! What have you seen?'" (Interview D1)

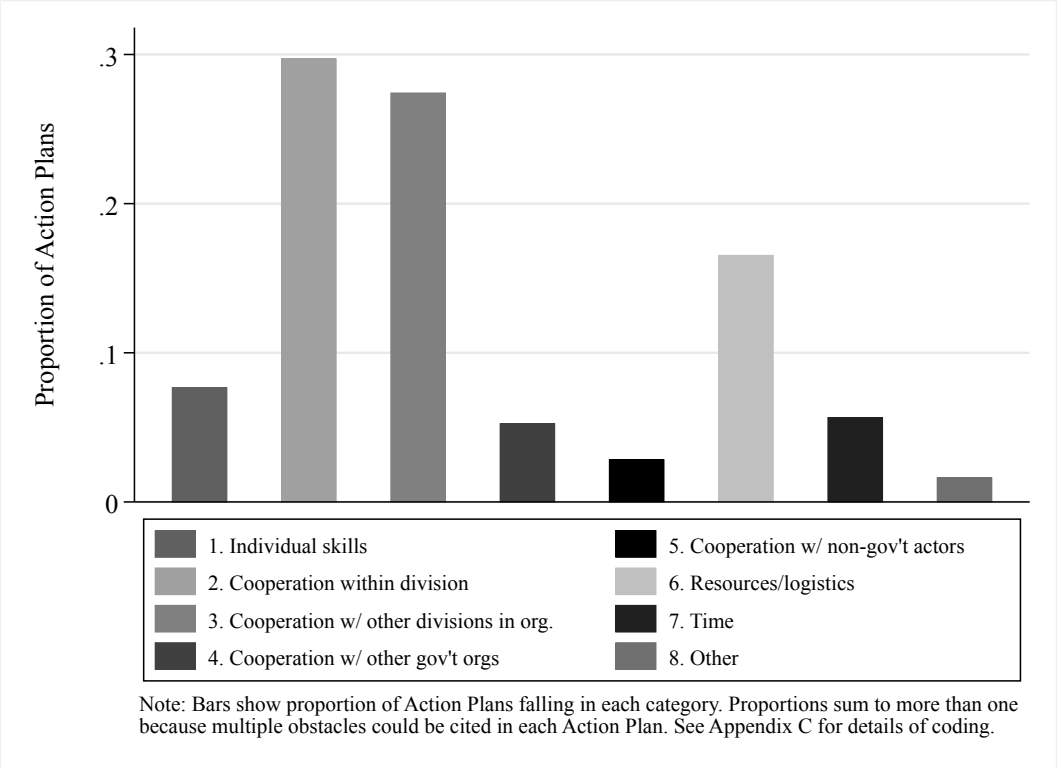
This phenomenon goes far beyond a general perception of unreceptiveness, as many respondents were able to point to specific occasions in which supervisors were actively hostile

to employee voice. One officer reported that "One director warned us in a meeting to never speak out at such meetings" (Interview B1), while another explained:

> *Once we were having a team meeting and my colleague suggested an idea and our director said "I am the boss and you cannot decide". In our informal little meetings, which we have without the director present, my colleague told us they were not going to talk again at meetings and has not done so since.* (Interview A4)

The prevalence of supervisorial hostility to subordinate voice from interviews is also supported by analysis of the types of obstacles officers report foreseeing in their Action Plans. Figure 2 shows that nearly half of all Action Plans report that the main obstacle they envision in implementing their Action Plans is the cooperation of colleagues in their own organization, either within their division or in other divisions. Together, these categories account for approximately four times as many Action Plans as those that reported that lack of resources was the main constraint. While officers rarely specified whether they were referring to the cooperation of their supervisor as opposed to other peers or junior colleagues – this reluctance to name specific colleagues or supervisors in writing is not surprising – the verbal descriptions of these obstacles expressed in the training sessions themselves and in subsequent interviews made it clear that their supervisor was typically the key colleague on whose cooperation they relied, and some officers even explicitly identified this in their Action Plan (e.g. Action Plan E10). Far from being confined to a handful of especially negative leaders, the phenomenon of supervisorial hostility to voice seems to be the modal experience of civil servants in Ghana.

Figure 2: Obstacles to Action Plan Implementation



Note: Bars show proportion of Action Plans falling in each category. Proportions sum to more than one because multiple obstacles could be cited in each Action Plan. See Appendix C for details of coding.

4.3 Explaining Supervisorial Hostility to Promotive Voice

What explains supervisors' frequent hostility to work process innovations suggested by officers under their supervision? Recalling the theoretical discussion in Section 2, employee voice may: threaten supervisors' *material* interests; pose a danger of running afoul of the *structural* rules and procedures regulating behavior in the civil service; challenge a general *cultural* aversion to innovation in the organization; or pose a *psychological* threat to supervisors' hierarchical position. We now investigate the extent to which our empirical evidence from Ghana is consistent with each of these explanations.

For the material explanation to pertain, subordinate voice or the potential work process innovations it might bring would need to pose some risk of material loss to supervisors. Since the rigid, almost entirely tenure-based promotion system of the Ghana Civil Service makes it

practically impossible for supervisors to lose their jobs or for subordinates to be promoted ahead of them, the main potential material risk to supervisors would be if their subordinates' ideas closed off potential sources of rents, for example through stricter financial management procedures. However, we found no obvious examples of such ideas, either in interviews or Action Plans, as most ideas were oriented towards practical operational or administrative tasks.[vi] Indeed, to the extent officers' ideas bore on financial issues at all, they were as likely to create new opportunities for rent-seeking as to reduce them. For example, one officer proposed auctioning off twelve broken-down vehicles owned by the ministry, which could create opportunities for capture by superior officials (Interview B1). While supervisors may rationally oppose innovations that restrict their rent-seeking opportunities – whether imposed from outside or proposed from within – it seems implausible that this explains their widespread hostility to employee voice in this context.

The structural explanation posits that supervisors may rationally discourage subordinates from trying to implement new ideas if these ideas are likely to transgress the constraints of existing rules and procedures, and thus result in sanctions against their supervisor and/or unit. In this view, supervisors' negative attitudes are actually aimed at protecting themselves and their subordinates. But while it seems natural that supervisors would block specific ideas that posed such a risk, a blanket policy of hostility to subordinate voice would seem an extreme response. It seems an even more implausible explanation because – as with the material explanation – we find no examples of ideas that potentially contravene civil service regulations or of such sanctions ever having occurred. To the extent that officers' innovation ideas interact at all with formal rules and regulations, they actually tend to push in the direction of strengthening compliance with these requirements. This is evident in the frequency with which innovation ideas are related to the implementation of nominally existing processes, as well as the

prevalence of compensatory innovations such as proactively reaching out to other divisions and organizations to inform them of reporting deadlines. Rather than creating a clash with bureaucratic structures and procedures, officers' ideas are far more likely to reinforce and strengthen them.

The near-universality with which lower- and middle-level officers perceive their supervisors as hostile to promotive voice does seem to suggest that there is an element of shared norms and expectations – key components of organizational culture – at work. Similarly, the experience shared by many young officers of voicing ideas only to be reprimanded also suggests that there is a process of learning or acculturation that spreads and cements these expectations. For instance, one officer explained, "There are factors within our system which make me feel that I do not want to be deviant for trying to change things. People continue doing things and it stays the same. Things are done in a hierarchy." (Interview G4) At first glance, then, the cultural explanation for supervisorial hostility to employee voice seems to fit with much of the empirical evidence.

Yet the idea that there are not only shared expectations but also shared norms and beliefs against employees' promotive voice in the organization runs afoul of another salient piece of evidence: lower- and middle-level officers overwhelmingly view the hierarchical nature of their workplaces as illegitimate, ineffective, and rooted in supervisors' egos and insecurities. This is clearly expressed in the following responses from interviewees:

> *"Superiors think that they know it all and that you are a small boy. They think 'what are you going to say that I do not know?' The boss can say I have been here for 15*

years, I have served on this project and for a junior officer to bring in a good idea it will look like they think that they know best." (Interview A2)

"This is an ego problem; seniors may think 'why did I not think of this?'. They won't take the idea on board. If they did not come up with the idea, they feel that they are not smart enough…The hierarchy is eating the issue up." (Interview F3)

Similarly, some interviewees suggested that supervisors who felt "threatened" by new ideas could react by "sweep[ing] it under the carpet" or retaliating – "Your wings could be clipped." (Interview F3)

Interviewees were explicit in identifying hierarchical relationships as the cause of this supervisorial hostility: "Because of vertical reporting, ideas are stifled and it ends there." (Interview A1) After explaining that their director had warned his staff never to speak out with ideas or information in meetings, another officer expressed frustration and also showed how this hostility led directly to disengagement:

"Why? Is it because our contributions may be stronger? Is it because it looks as if we are undermining their power? When the big man speaks, the juniors should not speak…This depresses you as you wonder what is your presence? Is it just to occupy space and time? I do not have an option. You keep the idea to yourself and then you go along singing the same tune and at the end of the month take your salary." (Interview B1)

The intensity of subordinates' resentment towards the hostility from their superiors emphasizes that while there may be a shared expectation among organizational members that promotive voice from subordinates is likely to be greeted with hostility from their supervisors, this is not rooted in shared norms and beliefs about innovation or what junior officers' roles should be – as the cultural explanation would imply. Rather, subordinates view supervisors' hostility as having negative impacts on their job satisfaction and engagement.

The differences in supervisors' attitudes towards innovation depending on the source of the idea is another sign that supervisorial hostility to employee voice is less about anti-innovation attitudes or the nature of the ideas than about reinforcing their status in the organizational hierarchy. There is a widespread perception that supervisors "are more comfortable talking about ideas with their level of staff" than with subordinates. (Interview D1) For instance, another officer reported that:

> *"[It is] 100% [true] that seniors are more accepting of an idea that comes from a colleague of equal or higher ranking than from a junior officer. This is the nature of the system…You think to listen to someone higher even if the idea isn't good versus someone lower with good ideas."* (Interview A2)

Similarly, officers perceived ideas coming from external sources as having a greater likelihood of acceptance: "I am not pursuing the data science idea I have, I would rather wait for a development partner to suggest it. Change coming from the outside is more receptive [sic] than [ideas coming from] here." (Interview A5) Others describe finding strategies to voice ideas without provoking anger from their supervisors: "as a junior you can massage the issue and make it look like the idea comes from them…Your change will be implemented but this is not

a good process." (Interview H5) This variation in openness to innovative ideas depending on the status of the idea's source is widely viewed as illegitimate and undesirable: "to be an outstanding director, you have to be willing to welcome ideas whether the person is younger or older. You cannot measure due to age, rank or profession." (Interview D3)

Taken together, this evidence suggests that supervisorial hostility to employee voice is less about a shared cultural norm throughout the organization than about the exercise of power to reinforce the status differences associated with organizational hierarchy. Similarly, the centrality of supervisors' egos and of notions of respect and deference is consistent with the explanation that hostility to employee voice is rooted in supervisors' psychological attachment to hierarchy: employee voice threatens supervisors' sense of superior status and the expectations of behavior they internalize due to their status, and so supervisors react with hostility to employee voice (Fast *et al* 2014).

When supervisors themselves were questioned about employee voice, they frequently expressed a view that innovation and initiative were desirable and that they themselves were open to innovation – although this self-perception was often contradicted by subordinates' descriptions of their actual behavior. While none of the supervisors interviewed directly acknowledged that they themselves were hostile to employee voice (unsurprisingly), many acknowledged that *other* supervisors had this aversion:

> *"It is sad that this goes on, we need to treat and train juniors to be directors…In my experience, innovative ideas have been few as people are afraid or shy to share ideas as they end up not getting support from seniors. Something like facial expressions can*

do so much and people will then give up. There is this state of giving up and so few have come out with any grand ideas." (Interview F2)

"If you go to an institution where they do not listen to newly recruited staff, they do not have a voice. The civil service does not help in that manner as they make you feel that young people are not knowledgeable. It is not said but in discussions, in the aura and ambience you feel it. They may just say 'this is the way this is done' but you may realise that this is not right. I have personally suffered with this issue [when I was a junior officer] and I know other juniors who have suffered it." (Interview A6)

Two of the interviewed supervisors even highlighted the core mechanism of the psychological explanation for supervisors' voice aversion – that the more insecure a supervisor is about their effectiveness in their role, the greater the psychological threat posed by subordinates' promotive voice and thus the more hostile they will be to it (Fast *et al* 2014). One supervisor explained that "When [they as supervisors] feel insecure then they can feel threatened that you will take their shine" by proposing new ideas to them, (Interview A6). Another stated "Those [supervisors who engage in] dampening spirits [of subordinates] are afraid to be outshined" and "Others may think you are not competent enough, why didn't you [the supervisor] come up with the idea. Perhaps seeing a junior being credited may make them feel some way." (Interview F2)

We also observed patterns consistent with the psychological explanation for supervisorial voice aversion in how employees engaged with the individual- versus the team-based trainings. Officers reported that the expectation of supervisorial hostility to them voicing their Action Plan ideas upon returning to their workplaces cast a shadow over the trainings in general, but

that these dynamics were even more pronounced in the team-based trainings in which an entire division conducted the same innovation training together with their supervisor. While some officers expressed that it was useful to have their supervisor present at the discussion, at least as common was the reaction that the supervisors' presence was actually counterproductive. For example, one officer explained: "With your superior [present] it was not beneficial. You have to be cautious about the superior-subordinate relationship…I could not voice my feelings." (Interview G6) Participants and facilitators alike expressed a perception that the quality of conversations in team-level trainings in which the supervisor was present (as opposed to those which the supervisor could not attend) was lower on average, with diagnosis of problems tending towards neutral and inoffensive topics rather than more significant problems of team dynamics. Indeed, the team-level Action Plans are significantly more likely than the individual Action Plans to propose anodyne measures such as accessing resources (30.1 percent of team-level Action Plans, versus 20.2 percent of individual-level Action Plans) or providing training (29.8 percent versus 20.3 percent), and less likely to propose further meetings within the division in which internal team dynamics could be addressed (31.9 percent versus 46.3 percent).

5. Discussion

This article has sought to demonstrate that while lower- and middle-level civil servants in Ghana routinely identify potential work process innovations, they rarely voice them due to hostility from their supervisors. Our analysis finds that this hostility is consistent with supervisors perceiving employee voice as a *psychological* threat to their hierarchical positions. However, we find evidence inconsistent with theories that supervisors might oppose voice due to *material* considerations of preserving rents, *structural* rigidity that makes innovation potentially risky, or widespread *cultural* opposition to innovation. We conclude by briefly

discussing the policy and academic importance of understanding the mechanism behind supervisorial voice aversion.

From a policy perspective, the decidedly mixed reaction to including supervisors in innovation conversations demonstrates the importance of understanding the mechanism driving supervisorial attitudes to employee voice. If there were a shared cultural norm of not discussing such ideas, then a group-based intervention would be necessary to collectively stimulate understanding and commitment among team members in order to shift the whole team out of their un-innovative equilibrium. However, if the main constraint on innovation was instead supervisors' psychologically driven hostility to employee voice then including supervisors may actually have backfired. Alternatively, an intervention targeted specifically at supervisors' attitudes could have been a useful complement or perhaps even cost-effective substitute for the training, since these supervisorial attitudes appear to be a significant constraint while a lack of innovative ideas from lower- and middle-level officers does not.

From an academic perspective, our findings contribute to the small but growing body of public administration studies on the potential for employee-led innovation and its relationship to supervisory attitudes and behavior. While our findings of course pertain to our empirical context – the civil service of Ghana – the core theoretical contribution is likely to be of much wider relevance. The existing organizational psychology literature on supervisorial aversion to employee voice derives from the very different context of private sector firms in OECD countries (Milliken *et al* 2003; Ashford *et al 2009*; Fast *et al* 2014), and the mechanism is anecdotally widespread in many governments. Of course, this is not to argue that all aversion to employee voice is psychologically motivated, and in other contexts the material, structural, and cultural theories may well apply. Rather, our unique empirical context allows us to

disentangle these potential mechanisms and identify which is most consistent with observed patterns of behavior in our context. Given the centrality of hierarchy to public bureaucracies worldwide and the increasing attention to behavioral factors in public administration, this insight is likely to have broad theoretical and empirical relevance.

Endnotes

[i] During the study period, CSTC experimented with introducing a new productivity curriculum, so that within each day of productivity training half of participants took the "old" version of the training and half took the "new" version. Both versions shared the objective of stimulating officers to think critically about productivity and work processes in their organizations and how to improve them, with some differences in course content and style. We do not distinguish between the two programs in our analysis.

[ii] The new version of the productivity training included the development of an Action Plan during the day of productivity training itself. As a result, participants in the new version of the training completed two Action Plans during their training: one during the productivity training, and one at the end of the SoS training. These were not necessarily focused on the same topic.

[iii] This figure includes Action Plans from both the old and new versions of the SoS training, as discussed above.

[iv] The sampled divisions came from the following ministries: Ministry of Gender, Children and Social Protection; Ministry of the Interior; Ministry of Foreign Affairs; Ministry of Local Government and Rural Development; Ministry of Youth and Sport; Ministry of Tourism, Culture and Creative Arts; Ministry of Environment, Science, Technology and Innovation; Ministry of Transport; and Ministry of Food and Agriculture.

[v] In addition to the variables coded about the content of each Action Plan, coders also assigned subjective scores on a 1-5 Likert scale for the level of detail, feasibility, and level of ambition of the Action Plan. On each of these subjective indicators, PPME divisions were not significantly different from other divisions, suggesting that our interview sample of officers in PPME divisions do not systematically differ in the quality of their innovation ideas from officers in other divisions.

[vi] One officer mentioned supervisors' material interests as a potential motivation for resistance to an idea, but could not provide an example (Interview A9).

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Online Appendix A: Action Plan Templates

"Old" Individual-level SOS Action Plan

ACTION PLAN FOR CIVIL SERVICE TRAINING CENTRE

Name of participant .....

MDA .....

Date of Scheme of Service Training.....

Current Grade .....

1. What are some of your job responsibilities in your organisation?

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2. What challenge(s) do you encounter when you want to meet these responsibilities?

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3. How can you resolve these challenges?

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4. After this scheme of service course, when can you implement the above mentioned changes?

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"New" Individual-level SoS Action Plan

Improving Productivity: Individual Action Planning Form

Name: ..... Date: .....

MDA: .....

OUTPUTS
1. What are your key outputs? *List up to three key outputs*
PROBLEM STATEMENT
2. In what part of your work would you like to improve productivity? *Think of one particular aspect of your area of work where you think there is scope to improve productivity – to do more for less, to increase the quantity or quality of outputs with the same or less resources. This should be an activity which does not necessarily require resources.*
IMPROVING PRODUCTIVITY
3. What needs to change to bring about this improvement? *Identify changes in processes, guidelines, attitudes, competencies, etc.*

4. What are the main obstacles to making the necessary change(s) and what support do you need from others? – *Including senior officers, colleagues, staff or stakeholders in other organisations – and how you will secure this.*
5. What steps can you take to solve the problem? When? *Be specific about what you need to do to validate the nature of the problem and do identify and implement possible solutions. As precisely as you can, say what you are going to do once your return to your office from the training for productivity.*
6. How will you know when you have succeeded? *Say what your objective and your indicators of success for this initiative will be. Are your indicators SMART?*

Team-level Action Plan

Improving Productivity: Directorate/Division Action Planning Form

Name of MDA: ..... Date: .....

Name of Directorate/Division: .....

OUTPUTS
1. What are your division's key outputs? *List up to three key outputs*
PROBLEM STATEMENT
2. In what part of your division's work would you like to improve productivity? *Think of one particular aspect of your area of work where you think there is scope to improve productivity – to do more for less, to increase the quantity or quality of outputs with the same or less resources. This should be an activity which does not necessarily require resources outside your division.*
IMPROVING PRODUCTIVITY
3. What needs to change to bring about this improvement within your division/unit? *Identify changes in processes, guidelines, attitudes, competencies etc*

4. What are the main obstacles to making the necessary change(s) and what support do you need from others? – *including senior officers, colleagues, staff or stakeholders in other organisations – and how you will secure this.*
5. What steps can your division take to solve the problem? When? *Be specific about what you need to do to validate the nature of the problem and do identify and implement possible solutions. As precisely as you can, say what you are going to do once your return to your office from the training for productivity.*
6. How will your division know when you have succeeded? *As precisely as you can at this stage, say what your objective and your indicators of success for this initiative will be. Are your indicators SMART?*

Online Appendix B: Action Plan Coding

For coding, Action Plans were first collected by our research assistants, then distributed to the civil servant coders. Coders entered their codes into a custom-designed spreadsheet which they then returned to our research assistants for collation. Cleaning and data preparation was then conducted by the authors in Stata.

For each variable to be coded, we provided coders with the name of the variable, the source of the variable (i.e. where within the Action Plan template the relevant information was contained), a description (usually in the form of a question) of the variable, and a set of response codes. For some variables, coders were restricted to selecting one response only, while for others they were able to select multiple responses. After coding the variables pertaining to the contents of the Action Plan, coders were asked to respond to Likert-style questions about the level of detail, feasibility, and ambition of the Action Plan, as well as the extent to which the Action Plan explicitly drew on lessons from the training modules.

We took several steps to improve the quality and consistency of coding. First, we conducted an intensive training with coders in which we explained each variable and its response codes in detail, and discussed a range of examples from sample Action Plans. Second, we conducted an initial pilot coding of several dozen Action Plans, after which we made minor adjustments to the coding scheme and had another group conversation with coders to compare and harmonize interpretations. (All Action Plans used in the pilot were recoded using the finalized coding scheme.) Third, our research assistants reviewed submissions from the coders on an ongoing basis to identify any unusual patterns or irregularities and resolve these in discussion with the coder. Fourth, we held another group meeting mid-way through the coding to once again discuss and re-harmonize interpretations.

While we initially aimed to double-coded all Action Plans, due to constraints on the time of the civil servant coders it was not possible to fully double-code and reconcile all Action Plans. As a result, we treat our data as single-coded. For the subset of Action Plans that were double-coded, we randomly select one coder's coding for each variable to use in our analysis. Where a variable was coded as missing by one coder, we use the non-missing value from the other coder (if available).

The full variable codebook is presented below.

Variable: Description of idea
Source: Whole Action Plan
Description: Summarize the reform proposed in the Action Plan in <10 words
Format: Free-entry text, up to 10 words
Response codes: N/A (free-entry text)

Variable: Nature of outputs
Source: New Q1, Old Q1
Description: What type of outputs does the worker contribute to?
Format: Select one.
Response Codes:

01 = Advocacy, outreach and stakeholder engagement/relations
02 = Financial & budget management

03 = ICT management and/or development
04 = Monitoring, review, & audit
05 = Permits and regulation
06 = Personnel management
07 = Physical infrastructure - office & facilities
08 = Physical infrastructure - public infrastructure & projects
09 = Policy development
10 = Procurement
11 = Research
12 = Training
13 = Other (specify)

Variable: Main area for reform/problem identified
Source: New Q2, Old Q2
Description: What is the main aspect of their work that they have identified for productivity improvement in the Action Plan?
Format: Select one.
Response codes:
01 = Routine work process (e.g. processing forms)
02 = Occasional work process (e.g. project management)
03 = Resource generation (e.g. IGF)
04 = Financial management
05 = Procurement
06 = Communication within organization
07 = Communication outside of organization
08 = Data collection
09 = Personnel management
10 = Monitoring and oversight
11 = ICT
12 = Other (specify)

Variable: Secondary area for reform/problem identified
Source: New Q2, Old Q2
Description: If they identified more than one area for productivity improvement, what was the second area?
Format: Select one.
Response codes:
01 = Routine work process (e.g. processing forms)
02 = Occasional work process (e.g. project management)
03 = Resource generation (e.g. IGF)
04 = Financial management
05 = Procurement
06 = Communication within organization
07 = Communication outside of organization
08 = Data collection
09 = Personnel management
10 = Monitoring and oversight
11 = ICT
12 = Other (specify)

Variable: Nature of proposed change
Source: New Q3, Old Q3
Description: What type of change have they proposed in this area?
Format: Select one.
Response codes:

01 = New innovation (minor)
02 = New innovation (major)
03 = Implement existing practice
04 = Expand scope of existing practice
05 = Get additional resources
06 = Hold meeting / discussions
07 = Other (specify)

Variable: Scope of proposed change
Source: New Q3-5, Old Q3
Description: How many people would be involved in/ affected by this change?
Format: Select as many as apply
Response codes:

01 = Change only involves one individual
02 = Colleagues in the same division
03 = Colleagues in other divisions in the organization
04 = Other government organizations
05 = Non-gov't stakeholders

Variable: Obstacles/challenges to improvement
Source: New Q4 Only
Description: What difficulties have they foreseen in implementing this improvement?
Format: Select as many as apply
Response codes:

01 = Individual skills/ training
02 = Cooperation with colleagues (in the division)
03 = Cooperation with colleages (other divisions in the organization)
04 = Cooperation of other government organizations
05 = Cooperation from non-gov't stakeholders
06 = Resources/ logistics
07 = Time
08 = Other (specify)

Variable: Specific activities/steps to be taken identified
Source: New Q5, Old Q3
Description: What types of steps were identified to implement this improvement?
Format: Select as many as apply
Response codes:

01 = Provision of training
02 = Meetings/ coordination within the division
03 = Meetings/coordination with other divisions in the organization
04 = Meetings/coordation with other government organizations
05 = Meetings/coordination with non-gov't stakeholders
06 = Accessing resources/ logistics
07 = Prioritization or dedication of time

08 = Research/ evidence gathering
09 = Getting new ideas from elsewhere (outside the division)
10 = Individual behavior change
11 = Other (specify)

Variable: Are steps given specific timelines?
Source: New Q5-6, Old Q4
Description: Do they indicate when these steps will be taken, or in what sequence?
Format: Select one.
Response codes:
01 = Yes, a full timeline is given
02 = Somewhat, some steps have timelines but the overall sequence is unclear
03 = No, no timelines are given

Variable: Nature of collaboration/help from others needed?
Source: New Q4-5, Old Q3-4
Description: Which other colleagues/ stakeholders do they identify as important for collaboration?
Format: Select as many as apply.
Response codes:
01 = No collaboration needed; change only involves one individual
02 = Colleagues in the same division
03 = Colleagues in other divisions in the organization
04 = Other government organizations
05 = Non-gov't stakeholders

Variable: Definition of success
Source: New Q6, Old Q3 or Q4
Description: Is there a clear definition of what success would be for this improvement?
Format: Select one.
Response codes:
01 = Yes, success is explicitly or implicitly defined clearly
02 = Somewhat
03 = Not at all

Variable: Level of detail of the Action Plan
Source: Coder's judgement
Description: In your view, how thorough and detailed is this Action Plan?
Format: Select between 1-5 scale; benchmarks listed below
Response codes:
01 = Hastily written and not detailed
03 = Some detail, but not all sections are completed thoroughly
05 = All sections are thoroughly completed

Variable: Overall feasibility of the Action Plan
Source: Coder's judgement
Description: In your view, how likely is this Action Plan to actually be implementable?
Format: Select between 1-5 scale; benchmarks listed below
Response codes:

01 = Not at all feasible; has unrealistic assumptions or requirements
03 = Somewhat feasible; there will be significant challenges, but the plan has a realistic way to overcome them
05 = Very feasible; plan convincingly shows how it can overcome all obstacles

Variable: Overall ambition of the Action Plan
Source: Coder's judgement
Description: In your view, how ambitious is this Action Plan?
Format: Select between 1-5 scale; benchmarks listed below
Response codes:

01 = Not ambitious; reform is minor and will not make much difference on the individual's or division's productivity
03 = Somewhat ambitious; improvement would be significant but not transformative
05 = Improvement would be transformative to the individual or division if implemented successfully

Variable: Relevant lessons/ideas from training identified by officer
Source: Coder's judgement, Old Q1-4
Description: Has the individual/ division used lessons from the training in coming up with the Action Plan?
Format: Select between 1-5 scale; benchmarks listed below
Response codes:

01 = No explicit or implicit connection between Action Plan and training content
03 = Some lessons are apparent or explicitly identified, but they are only somewhat relevant to the Action Plan
05 = The Action Plan draws heavily on training ideas and content

Online Appendix C: Full Interview Guide

Note: all interviews were semi-structured, so the below interview guide indicates the range of topics discussed and the main framing used in questions, but the actual questions asked and course of discussion varied significantly across interviews.

INITIAL INTERVIEW

DETAILS

a) Interview No.
b) Interview Date:
c) Interview Day:
d) Interview Start Time:
e) Interview End Time:
f) First Name:
g) Last Name:
h) Rank:
i) Tenure:
j) Organisation:
k) Division:
l) Division-level training status (pre-filled): □ Old SoS only □ New SoS only □ Old SoS + division-level □ New SoS + division-level □ Control

WORK TASKS

(1) Current Work Procedure/Processes

a) In your day-to-day tasks, can you tell me what your work entails?
b) What responsibilities do you bear?
c) What provisions are in place to help you do your work well? (PROMPT BY SAYING THIS IS TO BE DISCUSSED IN RELATION TO TASK-AWARENESS, INFORMATION COMMUNICATION AND LOGISTICS)

TRAININGS AND PRODUCTIVITY

(2) Trainings

a) Have you been offered the opportunity to attend trainings and workshops to improve upon your skills and knowledge?
b) Have there been any skills or ideas that you developed and directly implemented into your work due to the training?
c) Have you been able to share the lessons that you have learnt with your work colleagues or superior?
d) Do you find that there are enough trainings and workshops offered to you?
e) What areas of your work do you feel could be better supported by trainings and workshops?

(3) SOS training

a) Have you attended the two-week Scheme of Service training? If so, when
b) What did the training help you realise you did successfully in the work place?

c) What did the training help you realise you did not do successfully in the workplace?
d) As a result of this training have you been able to take the lessons you have learnt into your work place?

(4) Team-level Training

a) Do you remember as part of the SOS training attending a group training session with your colleagues?

b) Did you find it beneficial to attend such a training with your colleagues? (IF SO HOW?)

c) As a team, what did you collectively realise or decide to change during the training?

d) Have the methods or action plans been implemented?

(5) Productivity

a) In the Civil Service, how would you explain productivity to someone who did not know about it?

How would you improve:

b) your own productivity?
c) your unit/division's productivity?
d) your ministry's productivity?
e) your governments productivity?

ONLY VALID FOR SOS TRAININGS.

One aspect of the training looked at productivity…

f) Within your line of work, can you explain how the training taught you ways to be better productive?

MAKING CHANGE AT WORK

(6) Improving the work process

a) Have you ever thought of an idea to improve particular work processes that you or your team undertake?
b) Has your idea come into fruition or is it being developed?
c) Can you tell me about a particular challenge you face in the work place?
d) What affect do these challenges have on your work practices or output?
e) When do these challenges usually get identified?
f) How did you begin to think about improving your work?
g) What do you think can be done better to improve:
    a. Your work?
    b. Your division/unit's work?
    c. This ministry?
    d. The Civil Service?
    e. Overall government?

(7) Ideas for improvement

a) Can you explain how the training helped you think of new ways to improve your work?
b) (QUESTION FOR SOS ATTENDEES) You may remember filling out an action plan form during the training, can you explain how important the action plan has been in thinking about new ways to improve your work?

c) What will this change mean to the way that you and your team work?
d) Is this something you feel comfortable in sharing with your colleagues or superiors? (*Why?)*

(8) Implementing ideas for improvements

a) If you were to improve making your work better in this way- what does it mean or do? IF NO IS ANSWERED GO TO (7f)
b) Have you made any progress in making any changes?
c) Has this been something you have been able to achieve?
d) Can you walk me through the steps it took to bring about this change?
e) Has it involved any input from your colleagues or superior? (*How?)*
f) Could you think of one area of your work that you would want to improve? *(Making work processes and practices better)*
g) What do you need in order to facilitate this?

(9) Impact of improvements *(ONLY TO BE ASKED- IF IT HAS BEEN IMPLEMENTED)*

a) What has happened as a result of this change?
b) Have the improvements been as you expected them to be? (*Explain why)*
c) Have there been any changes that you did not expect? (*Explain why)*
d) What are the positive and negative influences you see this change having in your work?
e) Who does it impact? *[colleagues, superior, stakeholders]*
f) How does it positively or negatively impact these different groups of people?
g) What is the expected impact you foresee from this change?

(10) Suggesting change/new ideas/innovations in the workplace

a) Do you feel that you are able to suggest change in your workplace? (*Explain why)*
b) Does your division welcome new ideas?
c) Have you seen others recommend change which has been implemented? (If yes, what?)
d) ONLY ASK IF (9c) IS YES- Was it a successful implementation and change in your opinion? (*Why?*)
e) What does innovation mean to you?
f) What can innovation do for your:
    a. work?
    b. division/unit?
    c. ministry?
    d. government?
g) Does your superior encourage and support new ideas and innovations? *(Yes/How or No/Why?)*

(11) Sustainability and scale-up

IF NO IDEA/NON-TEAM RELATED IDEA WAS SUGGESTED THEN GO TO 10(f)

a) If there were improvements implemented - how can you ensure they are sustainable?
b) Does your suggested change include any:
    a. logistical changes?
    b. different work practices

c. personal changes and attitude to work?

c) Can the suggested change be scaled-up in anyway? (*if so, how? And when?)*
d) Can you think of something new that has been implemented and how it has been sustained?

FOLLOW-UP INTERVIEW

(*12) IDEAS FOR WORK PROCESS IMPROVEMENTS*

a) What are the necessary factors that allow ideas to be implemented?
b) Do you find that your unit/directorate is one that thinks about new ideas and innovations?
c) Do you have any examples of this?
d) Is it easy to talk about new ideas or innovations in your work place?
e) Have you voiced your idea to anyone such as colleagues you work with or superiors?
f) Do you feel that you need to voice your idea to anyone in particular?
g) How easy and comfortable is it for junior officers to talk with their director or immediate superiors about a new idea an officer has?
h) What would the director/superior's response or reaction be like?
i) What concern might a junior officer have from approaching their superior with a new and unsolicited idea? Is there a fear of punishment for doing so or is around shyness and/or discomfort in interacting with superiors about new ideas?
j) Is it possible to implement any idea that may not necessarily require your superior's consent or awareness?
k) In speaking with other division seniors tend to resist ideas that come from junior officers. Is it possible that seniors are more accepting of an idea that came from a colleague of equal or higher rank than from a junior officer?
l) Do you have any examples of this?
m) Why do you think some superiors may be resistant to taking upon new ideas?
n) Do you think this is only toward juniors or that they may be resistant to taking upon new ideas in general?
o) Do you feel superiors may feel they are at a disadvantage or losing something by taking on new ideas?
p) Could they feel that they lose any particular benefits by taking on new ideas such as material benefits or not?

(13) GENDER

a) Are female junior officers perhaps more afraid of suggesting ideas to male seniors?
b) Are female seniors more receptive to ideas than male seniors?
c) As a female officer do you feel having a senior female officer makes it easier to share ideas than if they were male?
d) As a male officer do you feel that having a senior male officer makes it easier to share ideas than if they were female?

(14) DIRECTORS

I have spoken with many directors and senior civil servants about their relationship and communication with their team and junior colleagues.

a) Do you think there are senior officers and directors who could do more to improve their relationship with their junior colleagues?
b) With regards to thinking about new ideas and work process improvements, do you think directors are receptive to thinking about and implementing change?
c) Do you have examples?

d) Do you think directors facilitate opportunities for their junior colleagues to raise new ideas with them? Is this something that you may have ever witnessed other directors doing or talking about?

(15) AGE

a) In conversation with other directors, they have experienced managing officers who are older than them, could this ever pose as a problem in terms of maintaining leadership and directing the officer?
b) Is it possible that an older officer would talk with the director about enhancing the directorate with ideas that they might have?

(16) TRAINING

a) You have been on the Scheme of Service training, do you feel this has affected you in anyway in relation to thinking about new ideas and implementing them?
b) How has it done this?
c) How could the training be improved in relation to helping officers think about idea generation and implementation?
d) How has the training impacted you in terms of productivity?
e) As a result of the training on productivity have you changed any work processes you do as a result?

(17) ACTION PLANS [respondents from any training]

You would have been asked to have completed an action plan during your training

a) Has that been implemented?
b) If so, how? If not, why?
c) Does it require you to speak with colleagues or superiors about your idea?
d) How did your colleagues or your superiors respond to your idea?
e) How useful did you find the action plan exercise?

(18) HIERARCHY

a) OHCS sent around a circular saying junior people have to express their opinions first and eventually the most senior person would express their opinion last in a meeting- Could this be a way to counteract this hierarchy?
b) Do you have any other ideas for counteracting this?

(19) CONCLUSION

a) That is all of the questions I have for you, but is there anything else that you would like to add to anything I have asked or you have responded to?
b) Would you like to receive a soft copy of the findings from this work? If yes, then please confirm you email address.