Subjective Performance Evaluation, Influence Activities, and Bureaucratic Work Behavior: Evidence from China

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Subjective performance evaluation could induce influence activities: employees might devote too much effort to pleasing their evaluator, relative to working toward the goals of the organization itself. We conduct a randomized field experiment among Chinese local civil servants to study the existence and implications of influence activities. We find that civil servants do engage in evaluator-specific influence to affect evaluation outcomes, partly in the form of reallocating work efforts toward job tasks that are more important and observable to the evaluator. Importantly, we show that introducing uncertainty about the evaluator's identity discourages evaluator-specific influence activities and improves bureaucratic work performance.

Keywords: subjective evaluation, influence activities, civil servants, work performance

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I. Introduction

For a large share of jobs in modern economies, objective performance measures are difficult to obtain, leading employers to rely heavily on supervisors' subjective evaluations to provide work incentives (Prendergast, 1999; Deb et al., 2016). This is particularly ubiquitous in the public sector, due to the inherent problems of measuring individual achievements and the multiplicity of tasks for most civil service jobs (Olken and Pande, 2013; Finan et al., 2015).

While subjective performance measures might improve contractual power (Gibbons and Murphy, 1992; Baker et al., 1994), they also open the door to influence activities: employees can take actions to affect the evaluator's assessment in their favor, which could potentially be detrimental to the interests of the organization (Milgrom and Roberts, 1988; Milgrom, 1988). Specifically, as noted by Milgrom and Roberts (1988), influence activities can be categorized into two types: productive activities, such as putting extra effort into tasks that are more visible to the evaluator, and non-productive activities, such as "buttering up" the evaluator with personal favors. While a rich theoretical literature has investigated the formation and consequences of influence activities, these theoretical arguments have rarely been confronted with rigorous empirical analysis (Oyer and Schaefer, 2011; Lazear and Oyer, 2012).

Empirically studying influence activities is challenging for at least three reasons. First, spending extra effort on tasks that are more visible to the evaluator, or trying to personally benefit the evaluator, can be regarded unfavorably by others, which means that the agent might try to hide such behaviors. Second, even if such behaviors are observed, it is difficult to infer that they are driven by intentions of improving evaluation outcomes (rather than simply being hardworking or friendly), making it difficult to classify them exclusively as influence activities. Third, even if the existence of influence activities is established, quantifying their effects on work performance still requires exogenous variation in such behavior across agents.

In this paper, we conduct a large-scale field experiment in two Chinese provinces, which aims at addressing these three challenges and providing empirical evidence on the existence and consequences of influence activities in the workplace. Our experiment focuses on China's "3+1 Supports" program, a large national "human capital reallocation" initiative that hires more than 30,000 college graduates annually to work as entry-level state employees in rural townships on two-year contracts. These individuals are referred to in this paper as College Graduate Civil Servants (CGCSs).

A distinct institutional feature of the Chinese governance system is its dual-leadership arrangement (Shirk, 1993), whereby every government organization/subsidiary has two leaders: a "party leader" (i.e., party secretaries at various levels) and an "administrative leader" (i.e., the head in a village, the mayor in a city).[1] As a result of this dual system, every CGCS reports to two supervisors who both assign her job tasks and provide performance feedback on a regular basis. Under the *status quo,* every CGCS is evaluated by one of her two supervisors every year.[2] The evaluation outcome will determine whether the CGCS can be awarded a permanent contract upon completing her two-year term, a highly sought-after outcome for most CGCSs due to the prestige of permanent civil service jobs in China. Under the current arrangement, rich anecdotal evidence suggests that many CGCSs exert substantial efforts trying to please their specific evaluating supervisor, in both productive and non-productive ways, in the expectation of better evaluation outcomes. The prevalence of influence activities is concerning the government, because such efforts to please specific evaluators might crowd out efforts on productive tasks that are deemed more important by the organization.

To examine the existence of influence activities in this environment, and to understand the impacts of such activities on CGCS work behavior, we collaborated with two provincial governments in China and randomized two performance evaluation schemes among their 3,785 CGCSs working in 788 townships. In both schemes, we randomly selected one of the two supervisors to be the evaluator. The only difference is that, in the "revealed" scheme, we announced the identity of the evaluator to the CGCS at the beginning of the evaluation cycle, so that, throughout the year, the CGCS knew whose opinion would influence her promotion case. In the "masked" scheme, we kept the identity of the evaluator secret until the end of the evaluation cycle, so that, throughout the year, the CGCS perceived each supervisor as having a 50% chance of influencing her promotion. We did not inform the supervisors about who was the chosen evaluator in either scheme.

We find that, in the revealed scheme, the evaluating supervisor gave significantly more positive assessments of CGCS performance than his non-evaluating counterpart. This result is consistent with a scenario where the agent engages in evaluator-specific influence activities

[1] The two leaders have large overlaps in their responsibilities, introducing *de facto* checks and balances in employee supervision. See Li (2019) for information on the institutional details of the dual system.

[2] Sixty-two percent of the CGCSs are female, so we use the female pronouns (she/her/hers) for the CGCS throughout this paper. In contrast, the majority of the CGCSs' supervisors and colleagues are male, so we use the male pronouns (he/him/his) when referring to them throughout this paper.

– either productive or non-productive – to improve evaluation outcomes.[3] In comparison, we find no such asymmetry in supervisor assessments in the masked scheme. Exploiting the random assignment of the two evaluation schemes, we find that masking the evaluator's identity incentivizes the CGCSs to reallocate their efforts from evaluator-specific influence activities to productive tasks that are valued by both supervisors, which can significantly improve CGCS work achievements according to a series of performance indicators.

Following the classification of Milgrom and Roberts (1988), we attempt to better understand the nature of potential influence activities in our setting. Regarding productive influence activities, we find that, under the revealed scheme, the CGCS devotes more efforts to the job tasks assigned by her evaluator, and deems the assignments from the evaluator as more important; in addition, her work performance improves more in areas that are valued more highly by the evaluator. Further analysis suggests that these patterns are driven by the behavior of the CGCS, rather than the behavior of the evaluator. We interpret these findings as indicating the existence of productive influence activities in this environment. As for non-productive influence activities, we document suggestive empirical patterns that are consistent with such behaviors. However, because we cannot directly observe and measure non-productive influence activities, we discuss these patterns with caution, and do not take a strong stance on the prevalence of such activities in our context.

We conduct a battery of additional tests to rule out alternative interpretations of our findings. For example, we find that the assessment asymmetry under the revealed scheme is not driven by the evaluator potentially finding out about his role and thus changing his behavior, nor by any additional information about CGCS performance being presented to him. We also find that the improved performance under the masked scheme cannot be explained by the CGCS engaging in even more influence activities, either productive or non-productive, directed toward her supervisors and colleagues.

This paper speaks to three strands of literature. First and foremost, it provides the first rigorous empirical test for the existence and implications of influence activities in the workplace. As pointed out by Lazear and Oyer (2012), while a large theoretical literature has studied how agents try to engage in influence activities in the workplace (e.g., Milgrom and Roberts, 1988; Milgrom, 1988; Meyer et al., 1992; Schaefer, 1998, Alonso et al., 2008; Powell,

[3] Analysis of administrative data suggests that these evaluation outcomes indeed have significant influence on the CGCSs' subsequent promotions to permanent civil service positions.

2015), there is a lack of rigorous empirical evidence, going beyond anecdotes and case studies, to verify these arguments.[4] Our paper fills this gap by providing field experimental evidence, as well as quantifying the causal impact of reducing influence activities on job performance.[5] More broadly, while subjective performance evaluation has been investigated extensively by a large body of theoretical work (Gibbons and Murphy, 1992; Baker et al., 1994; Prendergast and Topel, 1996; MacLeod, 2003, Maestri, 2012; Deb et al., 2016), empirical evidence on the effectiveness and limitations of subjective evaluation is still largely missing, with only a handful of exceptions (Chevalier and Ellison, 1999; Hayes and Schaefer, 2000). Our paper contributes to this literature by showing how influence activities can undermine the effectiveness of subjective performance evaluations.[6]

Second, this paper adds to a growing experimental literature on the personnel economics of the developing state, specifically on incentivizing public employees (Finan et al., 2015). Most of the existing field experiments on this topic focus on the role of financial incentives,[7] with only a few exceptions studying non-pecuniary incentives, such as transfers and postings (Banerjee et al., 2012), social incentives (Ashraf and Bandiera, 2018), and intrinsic motivation (Ashraf et al., 2014). Our paper adds to this line of work by exogenously varying the (implicit) career incentive involved in performance evaluations; this is a prevalent form of motivation in the public sector due to an often compressed wage structure, but has rarely been studied in the literature until recently (Deserranno et al., 2021).[8] In addition, we show that, holding the career reward fixed, a slight refinement of the performance evaluation practice can lead to a

[4] Rasul and Rogger (2016) find a negative correlation between incentives/monitoring practices and public project completion in Nigeria, which is stronger for more experienced bureaucrats. This empirical pattern is consistent with bureaucrats learning to engage in influence activities over time. Our paper complements Rasul and Rogger (2016) by experimentally altering the bureaucrats' incentives to engage in influence activities, which allows us to causally evaluate the existence and consequences of these activities in the public sector.

[5] A related paper is Wu (2017), which shows that, in a newspaper context, when both mid-level editors and top editors make editorial decisions, the bottom-level reporters have improved work performance. Our paper complements Wu (2017) by not only randomizing the authority for evaluation between two supervisors at the same level, but also cross-randomizing the employee's knowledge of the randomized evaluator's identity. This design allows us to better understand the underlying mechanisms through which the allocation of authority within an organizations affects work performance, and to highlight the role of influence activities.

[6] Our intervention of "masking evaluator identity to discourage influence activities" also relates to a large theoretical literature on using "strategic opacity" and "*ex ante* randomization" of incentive parameters to combat moral hazard issues (Gjesdal, 1982; Stiglitz, 1982; Grossman and Hart, 1983; Lazear, 2006; Jehiel, 2015; and Ederer et al., 2018).

[7] See Finan et al. (2015) for a summary.

[8] Previous research has focused on the selection effect of career incentives; see Ashraf et al. (2020), for example. Our paper complements this line of work by investigating the "intensive margin" impact of career incentives, while holding selection fixed.

substantial improvement in bureaucratic performance, indicating a highly cost-effective way to enhance state effectiveness.

Third, our paper relates to the research agenda on Chinese political meritocracy. Since Li and Zhou (2005), a large number of empirical studies have tried to investigate how the design of various performance indicators, such as fiscal revenue (Lü and Landry, 2014), environmental standards (He et al., 2020), policy experimentation (Wang and Yang, 2022), and population control (Serrato et al., 2019), can affect the behaviors of provincial and prefectural leaders in China. However, existing evidence has focused almost exclusively on high-level government officials, leaving incentives and constraints for the vast majority of local bureaucrats under-researched, even though they could differ substantially from those for high-level leaders.[9] Our paper sheds light on incentive schemes for grassroots bureaucrats in China, who are the building blocks of state capacity and play key roles in public service delivery. More broadly, this paper adds to an emerging literature on bureaucratic performance in developing countries (He and Wang, 2017; Bertrand et al., 2020; Martinez-Bravo et al., 2022).

The remainder of this paper is organized as follows. In Section II, we introduce the institutional background, design, and implementation of our field experiment. In Section III, we lay out a simple conceptual framework to help rationalize the empirical setting and experimental design. In Section IV, we present the empirical results. In Section V, we discuss potential alternative interpretations of our findings. Section VI concludes.

II. Background and the Experiment

A. Institutional Background

Since the early 2000s, the Chinese government has launched several large-scale public employee assignment programs, which have hired more than one million college graduates to work with local governments in rural areas, in the hope that their human capital and independence from local interest groups could improve state effectiveness at the grassroots level. For example, in the College Graduate Village Officials (CGVO) program, new college graduates were hired as village officials on a contractual basis, and the arrival of CGVOs in

[9] For instance, a key distinction is that job tasks for low-level bureaucrats are much more difficult to quantify with objective measures such as GDP growth and environmental quality. As a result, most grassroot bureaucrats are rewarded based only on subjective evaluations by their supervisors.

rural villages has been shown to improve policy implementation and reduce leakages in poverty subsidy distribution (He and Wang, 2017).

In this paper, we focus on the "3+1 Supports" initiative – a human capital building program for local governments launched in 2006 by the Ministry of Human Resources and Social Security.[10] Through this program, college graduates are hired to work as temporary civil servants in rural townships. They assume four types of positions: township government clerks focusing on poverty alleviation, township government clerks focusing on agricultural support, teachers in township primary schools, and nurses in township clinics. By the end of 2018, more than 350,000 college graduates had been hired as "College Graduate Civil Servants" (CGCSs) through this program.

The CGCSs are recruited nationwide on a yearly basis. In May, before the end of the school year, each provincial government announces vacancies on its website and invites college graduates to apply. In most provinces, the procedure for CGCS recruitment is similar to that for recruiting regular state employees. Applicants first take a comprehensive written exam, which is similar to the Administrative Aptitude and Essay Writing Tests on the National Civil Service Exam. High-scoring applicants are then interviewed, and top-ranked candidates (based on combined scores) are recruited. Some provinces forgo tests and interviews, and screen applicants simply based on their application materials.

The selection of CGCSs is highly competitive. In most provinces, the acceptance rate for the "3+1 Supports" program is consistently below 10%. For example, Shandong province had around 1,500 positions in 2017 and attracted over 31,000 applicants (acceptance rate < 5%); in Guangxi province, the government planned to hire 800 CGCSs in 2017 and the total number of applicants exceeded 13,600 (acceptance rate < 6%). Such intense competition ensures the high quality of selected CGCSs.

The job tasks of a CGCS are similar to those of a regular entry-level township civil servant. Specifically, for CGCSs in clerical positions – as in the case of regular rural civil servants – job tasks tend to be a combination of routine paperwork, visits to villages, interactions with villagers, meeting attendance, and other case-based assignments from supervisors. Sometimes

[10] In Chinese, the initiative corresponds to the "*San Zhi Yi Fu* (三支一扶)" program. Six other ministries and departments co-sponsored the program, including the Ministry of Education, the Ministry of Finance, the Ministry of Agriculture, the National Health Commission, the State Council Leading Group Office of Poverty Alleviation and Development, and the Communist Youth League Central Committee.

they are also responsible for policy propaganda, policy enforcement, and identifying and screening beneficiaries for various social assistance programs.

For CGCSs in more specialized positions, such as township clinic nurses or primary school teachers, job tasks are also similar to those of their colleagues who are formal public employees. CGCS teachers work in township public schools; they typically teach multiple courses, help with administrative work, and assist the regular teachers in various *ad hoc* tasks. CGCS nurses work in township clinics; their daily tasks involve assisting with diagnosis and treatment, visiting villages to provide health consultations and check-ups, managing patients with chronic diseases, and providing health education. While some dimensions of these teaching and nursing jobs are better defined than those of clerical jobs, objective performance evaluation remains difficult. For example, due to the non-permanent nature of the CGCS positions, CGCS teachers are often assigned to teach non-core courses (such as art or music) or lower grades (1st to 3rd grades), where there are no school-wide exams to test student performance, and thus student scores cannot be used to objectively evaluate the performance of these teachers.

Since the multi-dimensional and vaguely-defined nature of CGCS job tasks makes it infeasible to objectively compare job performance across individuals, the evaluation of a CGCS relies solely on the evaluating supervisor's subjective assessment. This is also the norm for the vast majority of regular civil service jobs in China and across the world.

The only major difference between a CGCS position and a regular civil servant position is that the former is based on a two-year contract while the latter is "tenured."[11] The majority of CGCSs are eager to be promoted to tenured positions upon finishing their two-year terms, which can only be approved by the government if the supervisor's evaluation is satisfactory.[12] As a result, CGCSs have exceptionally strong incentives to impress their evaluators. A potential byproduct of such high-powered incentives is the CGCSs' engagement in influence activities – either productive or non-productive ones – directed toward their evaluators. Simple examples of productive influence activities include strategically allocating more efforts to job tasks assigned by the evaluator, working harder on job dimensions that are more observable

[11] In this setting, "tenure" corresponds to "*Bian Zhi* (编制)," which is essentially a permanent contract provided by the government.

[12] In the provinces where our study took place, about 40% of CGCSs subsequently become permanent civil servants.

or valuable to the evaluator, trying to get more involved in projects initiated by the evaluator, etc. Non-productive influence activities consist of behaviors such as "buttering up" the evaluator, picking up the evaluator's kids from school, making tea for the evaluator, doing personal chores for the evaluator, or even directly bribing the evaluator.[13]

Under the dual-leadership governance structure, every CGCS reports to both a party leader and an administrative leader. In principle, the administrative leader is in charge of the day-to-day operation of the government entity, while the party leader oversees the process and has the final say in the most high-stakes decisions. These two leaders have the same official ranking, but the party leader is normally perceived to have an edge in authority. At the grassroots level, such as a township (which is the lowest layer of formal bureaucracy), the division of labor between the two leaders often becomes less clear, and there tends to be substantial overlap in their roles. This dual arrangement provides *de facto* checks and balances in local governance, including employee supervision (Li, 2018). It is prevalent in many levels of administrative units, ranging from the central ministries to village committees. It is also implemented in public institutions such as schools, hospitals, and state-owned enterprises, as long as there are more than three Communist Party members among the employees.

Under the current evaluation scheme, when a CGCS is first assigned to a township by the provincial Department of Human Resources, she is explicitly told that the Department of Human Resources has designated one of the two leaders as the "evaluator" who is responsible for evaluating her performance at the end of the year.[14] The CGCS, therefore, knows whose opinion matters for her career development, starting at the beginning of her appointment. Nevertheless, the CGCS is hired to work for the entire organization rather than the specific evaluator, which means that she is expected to respond to the job tasks assigned by both leaders, even though only one of them will matter for her evaluation outcomes.

[13] In contrast, productive activities valued by the entire organization are typically routine job tasks that can be observed and appreciated by both leaders. For example, for the CGCSs working as township government clerks, this category typically includes tasks like hosting visiting villagers and helping them benefit from existing social assistance programs, preparing policy documents to be submitted to upper-level governments by the organization, helping the organization adopt e-governance systems, attending meetings and discussions for the organization, etc.

[14] In our field interviews, we learned that the government decided to choose only one of the two supervisors to evaluate the CGCS in order to avoid potentially sensitive cases where the two supervisors give drastically different evaluations regarding the same CGCS, which might cause political or legal trouble for the government itself.

B. Experimental Design

In this section, we explain the experimental design and discuss the intuitions for our main hypotheses. A formal rationalization of the experiment is presented with a conceptual framework in Section III.

In collaboration with two provincial governments in China, in 2017, we randomly assigned the "revealed" and "masked" subjective performance evaluation schemes across all 3,785 CGCSs whom they employed in that year. For every CGCS in our sample, one of her two supervisors was randomly selected to be the evaluator, meaning that this supervisor's assessment was given all the weight in the final evaluation outcome. We also collected the non-evaluating supervisor's assessment of each CGCS's performance, but this assessment was given no weight in the actual evaluation. In both schemes, we never directly informed a supervisor whether or not he was chosen as the evaluator, nor did we inform the CGCS's colleagues.

Two-thirds of the CGCSs in our sample were assigned to the "revealed" scheme. In this scheme, we informed each CGCS about the identity of her evaluating supervisor at the beginning of the evaluation cycle. This mimics the current system of CGCS performance evaluation, where the agent is informed *ex-ante* about the evaluating supervisor's identity. The key difference is that, in the current system, the evaluator is endogenously chosen from the two supervisors, typically through an opaque process combining supervisor opinions, division of evaluation duties between supervisors, and other idiosyncratic factors. Because our "revealed" scheme randomly selected the evaluator, endogeneity in evaluator selection was eliminated.

We exploit the revealed scheme to test whether knowing the evaluator's identity generates asymmetry in supervisor assessments. Since the evaluator was randomly selected, both supervisors should give similar assessments of CGCS performance on average, in the absence of any evaluator-specific influence activities. However, if the CGCS indeed engaged in evaluator-specific influence activities, we would expect to observe asymmetry in the two supervisors' assessments of the same CGCS.

The remaining one-third of the CGCSs were assigned to the "masked" scheme. In this scheme, while we still randomly selected one of the two supervisors as the evaluator, we did not inform the CGCS about the identity of the evaluator until the end of the evaluation cycle.

Therefore, from the CGCS's perspective, each supervisor had a 50% chance of determining her evaluation outcome. Compared to the revealed scheme, the masked scheme reduced the relative return to supervisor-specific influence activities. If the CGCS put effort into influencing a specific supervisor, there was a 50% chance that this supervisor would not end up evaluating her performance, significantly reducing the expected benefit from engaging in influence activities. As a result, under the masked scheme, a CGCS had incentives to reallocate her efforts from influence activities toward productive activities that would be appreciated by both supervisors, which could improve overall work performance.

Exploiting the randomization of CGCSs into the "revealed" vs. "masked" schemes, we can test whether introducing uncertainty about the evaluator's identity improves CGCS performance. Our benchmark performance indicator is the average assessment given by other colleagues. We define "colleagues" as co-workers in the same office as the CGCS, who were not hired through the "3+1 Supports" program. We consider the colleagues' assessments an informative performance measure in this context for three reasons. First, the colleagues were randomly chosen from the same office where the CGCSs work. They worked closely with the CGCSs and could thus accurately observe the CGCSs' performance. Second, there is no obvious conflict of interest between the CGCSs and their colleagues. Most colleagues already have tenure and have worked in the office for many years. As a result, the CGCSs and their colleagues do not directly compete with each other for career advancement. Finally, the CGCSs did not have obvious incentives to influence their colleagues for evaluation purposes; at the beginning of the experiment, the provincial governments explicitly told each CGCS that only the evaluating supervisor's opinion would count for promotion.[15]

In addition to colleagues' assessments, we also measured CGCS performance in two other ways. First, we elicited performance assessments from both the evaluating supervisor and the non-evaluating supervisor. Using administrative data obtained from the provincial governments on the eventual career outcomes of the CGCSs, we verified that the evaluator's assessment is indeed important in determining the CGCS's promotion to a permanent position. Second, we tried to benchmark performance objectively using the actual salaries received by the CGCSs. While it is difficult to measure performance objectively due to the multi-dimensional nature of most CGCS jobs, a modest amount of "monthly bonus" is

[15] Most CGCSs, in fact, did not even expect that we would survey their colleagues until the enumerators were sent to their workplaces at the end of the experiment.

explicitly linked to certain well-defined performance indicators for some CGCS positions.[16] Therefore, we can compare the actual salaries received by CGCSs between the two schemes, and infer the differences in objective performance measures based on the bonus pay algorithms.

C. Implementation

Our experiment was conducted in collaboration with the governments of two large provinces in China, with a combined population of more than 150 million. Province A is coastal and more developed, while Province B is inland with a lower average income. Our sample covers all 3,785 CGCSs employed by these two provinces as of September 2017 (cohorts admitted in 2016 and 2017). Our research team was appointed by the two provincial Human Resources Departments as the third-party evaluator for their "3+1 Supports" programs to help pilot new performance evaluation schemes. The provincial governments officially informed all the CGCSs of this pilot. This high-level endorsement helped ensure that the vast majority of CGCSs were well aware of the high stakes involved in the evaluation outcomes under the newly introduced evaluation schemes.

The baseline survey was carried out in September 2017, one month after the 2017 CGCS cohort finished job training and received their assignments to positions. Every CGCS was then randomized into one of the two evaluation schemes. The randomization was conducted at the work unit level instead of the individual level.[17] Different CGCSs working in the same unit (i.e., an organization branch led by the same set of supervisors) were assigned to the same scheme. This was at the request of our government partners to ensure that the evaluation outcomes of CGCSs working in the same unit could be fairly compared to each other. Because 83.9% of the work units had only one CGCS assigned, randomizing at the work unit level instead of the individual level did not make any substantial difference statistically.

In September 2017, we informed every CGCS about the evaluation scheme to which she had been assigned. If a CGCS was randomized into the revealed scheme, we notified her that "among your two supervisors A and B, we randomly selected supervisor A to be your evaluator, whose opinion will be collected at the end of this evaluation cycle and provided to

[16] For example, CGCSs who serve as nurses receive bonuses based on the number of night shifts they work.
[17] In Chinese, a work unit corresponds to a "*Gong Zuo Dan Wei* (工作单位)."

the provincial Human Resources Department for their review." If a CGCS was randomized into the masked scheme, we notified her that "among your two supervisors A and B, we will randomly select one of them to be your evaluator. The randomization will be determined at the end of this evaluation cycle, at which time the evaluator's opinion will be collected and provided to the provincial Human Resources Department for their review." The individualized notification letters are translated in Appendix B.

To ensure the credibility of our intervention, the two provincial governments sent formal notifications with official stamps to every CGCS. The government notifications emphasized the importance of this "third-party" performance evaluation and confirmed the design of the evaluation schemes that we sent to the CGCSs. We reminded the CGCSs about their evaluation schemes in January 2018.

The end-line survey was carried out in June 2018, which consisted of three parts: colleague assessment, supervisor assessment, and self-assessment. When the enumerators visited the office where a CGCS worked, if there were fewer than five colleagues in the office, all of them were invited to fill in the colleague questionnaire; if there were more than five colleagues, the surveyor randomly sampled five of them to fill in the colleague questionnaire, using a random number generator.[18] To protect the privacy of colleagues and encourage truth-telling, colleague questionnaires were strictly anonymous, and CGCSs were not allowed to communicate with colleagues during the entire process. The CGCS survey was also conducted on-site, but independently from the colleague survey to avoid interference. Supervisor assessment was completed online, with an individual-specific link for each supervisor, listing all the CGCSs in his unit.

In the colleague and supervisor surveys, we collected information on the main characteristics of the colleague/supervisor, their interactions and familiarity with the CGCS, the job tasks of the CGCS, and their assessments of the CGCS along various dimensions. Specifically, we asked for an overall assessment of CGCS performance, as well as a "revealed preference" measure asking each colleague/supervisor whether he recommended that the CGCS be promoted to a permanent civil servant position in the current work unit.

[18] If a colleague was not at the office when the enumerator visited, his contact information was collected and he was surveyed over the phone the following day. To ensure data accuracy, the leader of the surveying team randomly called some of the surveyed colleagues on the following days to verify the sampling procedure and the answers collected.

The end-line CGCS survey followed a similar structure by asking about interactions with supervisors/colleagues and self-assessments along multiple dimensions. In addition, we also asked a series of questions related to future career plans and satisfaction with the "3+1 Supports" program. After the experiment, we collected administrative data on salaries and promotion outcomes for the CGCSs in our sample through our government partners. We list the key variables used in this paper and their sources in Appendix Table A1.

D. Balance and Attrition Tests

To ensure that the randomization was well executed, we conduct a series of balance tests. Table 1 reports the summary statistics of the CGCSs' characteristics and the differences in these variables between the revealed and masked schemes. All the characteristics are balanced across the two schemes, suggesting our randomization was well executed. In Appendix Tables A2–A3, we also report balance tests for supervisor characteristics and colleague characteristics, and in Appendix Table A4, we further test whether supervisor characteristics in the revealed scheme are balanced between the evaluating and non-evaluating supervisors.

Between the baseline and end-line surveys, we lost 929 (24.5%) CGCSs in the sample. The main cause for attrition was that some CGCSs or their supervisors were re-assigned to different job posts during our study period (14.9%). For example, a CGCS could be relocated from one township to another because of changes in government priorities. The supervisors could retire or be promoted or rotated to other institutions. Such job changes would break the supervisor-subordinate relationship defined by our intervention and thus invalidate the experimental design. In addition, some CGCSs passed the formal civil service exams or were admitted to graduate schools and thus decided to quit their jobs during our experiment (7.4%).

To test whether our experiment suffers from potential attrition bias, we regress the attrition status on the treatment status in Appendix Table A5. We find that the masked scheme does not increase overall attrition, nor does it predict any specific type of attrition. To further investigate the potential impacts of CGCS attrition on our findings, in Appendix Table A6, we regress a CGCS's attrition status on her baseline characteristics and their interaction terms with our treatment variable for the masked scheme. As can be seen, while several covariates are correlated with attrition (college type, College Entrance Examination (CEE) score, age, parental education, and social science (SOSC) major), these types of attrition do not systematically differ between treatment and control groups.

In addition, as will be elaborated in Section IV, we try to correct for potential non-random sample selection by applying Lee bounds to our baseline analyses (Lee, 2009) and find that the baseline results hold. We therefore conclude that, while CGCS attrition is common in this institutional context, it has limited impact on the empirical analyses presented in this paper.

III. Conceptual Framework

In this section, we conceptualize our empirical setting and experimental design, and derive the main hypotheses that will guide the empirical analysis.

Assume that a CGCS's work performance can be (at least partially) observed by her supervisors and co-workers but cannot be verified quantitatively. The organization therefore relies on a subjective performance evaluation scheme, where the agent's reward depends on the assessment given by her evaluator. To mimic our empirical setting, we assume that there are two supervisors, $j \in \{1, 2\}$. The CGCS allocates her efforts across three dimensions. First, she can work on the "common productive dimensions" of the job (X), which can be observed and appreciated by both supervisors. Second, she can work on "supervisor-specific productive tasks" (x_j), which are assigned or observed solely by supervisor j. Finally, she can exert non-productive efforts to personally flatter a supervisor (u_j). Following Milgrom and Roberts (1988), we categorize x_j as "productive influence activities" and u_j as "non-productive influence activities."[19]

From the point of view of the organization, only productive activities contribute to the overall performance of the CGCS:

$$P = X + x_1 + x_2$$

In contrast, a supervisor j values all three types of activities — common productive activities (X), productive influence activities directed toward him (x_j), and non-productive influence activities directed toward him (u_j). The assessment score of supervisor j is thus given by:

$$Y_j = \alpha X + x_j + u_j, \quad j = 1,2$$

[19] The symmetry between the two supervisors in the model corresponds to the fact that we have randomly assigned one of them to be the evaluator in the experiment. Therefore, in the data, they are on average balanced along different dimensions.

where $\alpha > 0$ measures the relative weight that a supervisor places on the common productive activities over the supervisor-specific influence activities.

Each CGCS maximizes her utility subject to a time constraint:

$$Max_{X,x,u}\, V = \alpha X + \sum_{j=1,2} s_j \left(x_j + u_j\right) - G(X) - g(\sum x_j) - h(\sum u_j)$$

$$\text{s.t } X + \sum x_j + \sum u_j = T;\ X, x_j, u_j \in [0, T]$$

where s_j is the probability of each supervisor j's assessment being used to determine the CGCS's reward in the performance evaluation scheme ($\sum_{j\in\{1,2\}} s_j = 1$). The costs of working on different activities follow strictly convex functions $G(\mathrm{X})$, $g(\sum x_j)$, and $h(\sum u_j)$. T is the total time budget for an individual.

When the CGCS is informed about the identity of her evaluator (revealed scheme), she knows exactly whose opinion matters for her career development: $s_1 = 1, s_2 = 0$; or $s_1 = 0, s_2 = 1$. When the CGCS is not informed about the evaluator's identity until the end of the evaluation cycle (masked scheme), she perceives each supervisor as equally likely to determine her career development: $s_1 = s_2 = \frac{1}{2}$.

Solving the CGCS's maximization problem in the two schemes, we can derive the main hypotheses that will guide the empirical investigations. We summarize the main propositions and briefly discuss their intuitions below. We provide more detailed proofs and model extensions in Appendix C.[20]

Proposition 1: *Under the revealed scheme, the agent engages in evaluator-specific influence activities (x_j, u_j), and the evaluating supervisor gives a higher assessment (Y_j) than the non-evaluating supervisor.*

[20] In Appendix D, we evaluate the robustness of our model predictions with respect to alternative specifications. Specifically, under the current baseline model setup, we explore the more general case where the evaluation score of supervisor j is a non-linear function of the three types of actions: $E_j = F(X + x_j + u_j)$. We find that all the model predictions remain unchanged under simple regularity conditions. While our model assumptions are fairly general, they are meant to rationalize our specific institutional setting, and there could exist different organizational environments where our propositions no longer hold. The empirical results should thus be viewed as results in this setting that are consistent with the model, rather than a more generalized test of the model. In Appendix E, we use a generic model to demonstrate that our model predictions hold as long as there is sufficient substitutability between the common productive activities and influence activities.

Discussion: When the agent knows the identity of the evaluator, she has incentives to exert influence activities toward the evaluator (but not toward the non-evaluator), which leads to the evaluator giving more a positive assessment than the non-evaluator.

Proposition 2: *Compared to the revealed scheme, the masked scheme increases common productive efforts (X) and improves work performance (P). The masked scheme increases the non-evaluating supervisor's assessment score, but the assessment change is ambiguous for the evaluating supervisor.*

Discussion: When the agent does not know who the evaluator is, her expected return to supervisor-specific influence activities (either productive or non-productive) is reduced by half, while her expected return to common productive activities remains unchanged. Therefore, she has incentives to reallocate her efforts from influence activities to common productive activities, thereby improving performance.[21] Under the masked scheme, both supervisors benefit from the increased common productive efforts, but the evaluator also suffers from reduced evaluator-specific influence activities; as a result, the masked scheme leads to an unambiguous increase in non-evaluator assessment, and an ambiguous change in evaluator assessment.

IV. Baseline Results

In this section, we present the experimental results. In the revealed scheme, we find that the assessment given by the (randomized) evaluating supervisor is substantially higher than that given by the (randomized) non-evaluating supervisor, which is consistent with *Proposition 1* of our conceptual framework. When switching from the revealed scheme to the masked scheme, the asymmetry in supervisor assessments no longer exists. Instead, we find significant improvements in colleague assessments, non-evaluator's assessments, and performance payment, and no significant change in evaluator's assessments. Taken together, these findings are consistent with *Proposition 2* of our conceptual framework.

Analysis of data on the eventual allocation of permanent contracts among CGCSs indicates that performance evaluation in this setting is not just a formality, instead, the evaluators' assessments are indeed given substantial weights in CGCS promotions. Further, under the

[21] In our model, productive and non-productive influence activities should co-move with each other. So, a reduction in total influence activities indicates reductions in both types of influence activities. Given the fixed time budget, a reduction in non-productive activities means an increase in total productive activities ($X + x$), which means better overall performance.

revealed scheme, we find clear evidence for the existence of productive influence activities, as well as suggestive evidence for non-productive influence activities. We discuss these findings in more detail below.

A. Proposition 1: Asymmetry in Supervisor Assessments under Revealed Scheme

First, we investigate *Proposition 1*: whether revealing the identity of the evaluator to the CGCS will cause the evaluator to be more positive about the CGCS than the non-evaluator. For each CGCS's two supervisors, we randomly label them as "Supervisor 1" and "Supervisor 2," and then use the subsample of CGCSs in the revealed scheme to estimate the following econometric model:

$$Sup1_Edge_{icst} = \alpha \cdot Sup1_Eval_i + \gamma_c + \lambda_s + \phi_t + \epsilon_{icst} \quad (1)$$

where the outcome variable $Sup1_Edge_{icsy}$ is defined as "Supervisor 1's assessment score minus Supervisor 2's assessment score for CGCS i," who is in county c, cohort t, and serves as CGCS type s.[22] $Sup1_Eval_i$ is a dummy variable indicating whether CGCS i is being evaluated by supervisor 1 (instead of supervisor 2). γ_c, λ_s, and ϕ_t represent county FE, CGCS type FE, and cohort FE, respectively. Standard errors are clustered at the work unit level. Under this specification, since the evaluator is randomly chosen among the two supervisors for each CGCS, α causally identifies the additional positiveness of the evaluation due to being assigned as the evaluator.[23] Throughout all baseline specifications, we always include the same set of fixed effects and no control variables, to keep things consistent. Our results are highly robust to alternative specifications, as we show below.

As shown in Column (1) of Table 2, for CGCSs in the revealed scheme, if a supervisor was chosen as the evaluator at the baseline, he indeed gave a more positive assessment at the end line (relative to his non-evaluating counterpart), and the magnitude of this "evaluator edge" in assessment scores is as large as 0.24 standard deviation. This asymmetry in supervisor assessments is consistent with the agent engaging in evaluator-specific influence activities to improve evaluation outcomes. If the "assessment asymmetry" documented in Column (1) is

[22] This represents the four types of CGCS positions: township government clerks focusing on poverty alleviation, township government clerks focusing on agricultural support, teachers in township primary schools, and nurses in township clinics.

[23] Here, we define "more positive" as Supervisor 1's score being strictly larger than that of Supervisor 2, with each assessment score ranging from 1 to 7.

indeed caused by evaluator-specific influence activities, as we have argued, it should only exist when the CGCS knows who the evaluator is. Under the masked scheme, when the CGCS no longer knows the identity of the evaluator, there should be no asymmetry in supervisor assessments. In Column (2), we focus on the masked scheme where the randomly chosen evaluator's identity was not announced until the end of the evaluation cycle. As we can see, in the masked scheme, being selected as the evaluator indeed no longer leads to more positive assessments compared to the other non-evaluating supervisor.

In Columns (3) and (4), we focus on an alternative outcome variable: a dummy that indicates whether Supervisor 1 is strictly more positive than Supervisor 2.[24] Again, we find that the evaluating supervisor is more likely to give a more positive assessment than the non-evaluating supervisor in the revealed scheme, a phenomenon that disappears in the masked scheme.

In Appendix Figure A1, we plot the distributions of evaluator and non-evaluator assessment scores across the two schemes.[25] Reassuringly, the assessment asymmetry documented under the revealed scheme is not driven by outliers in the outcome variable (e.g., a few evaluators giving the highest scores or a few non-evaluators giving the lowest scores). Instead, we observe that the evaluators appear to be systematically more positive than the non-evaluators across the entire distribution in the revealed scheme (Panel A), which no longer holds in the masked scheme (Panel B).

In the appendix, we also provide a battery of robustness checks on Table 2. First, in Appendix Table A7, we present the main results controlling for variables chosen by the post-double-selection method using LASSO from a large pool of pre-determined covariates.[26] Our estimates remain essentially unchanged. Second, in Appendix Table A8, we directly control for all basic CGCS characteristics, and the results again hold.[27] Third, in Appendix Table A9, we correct for potential non-random sample selection by applying Lee bounds to our baseline analyses (Lee, 2009), and our results are quantitatively similar. Finally, instead of assessing the

[24] Since in many cases both supervisors give equal assessment scores, the mean of this variable is substantially smaller than 0.5.

[25] In Appendix Figure A2, we also plot the distribution of the "Edge" variable in the two schemes.

[26] Three sets of baseline covariates enter the LASSO selection. First, we include CGCS basic characteristics: age, gender, party membership, parental education, college type, and college major. Second, we include the characteristics of the evaluators: age, gender, work experience, and educational background. Third, we also include colleague characteristics: age, gender, tenure status, educational background, work experience, and relationship with CGCS.

[27] Controls include: CGCS's age, gender, college major, college type, high school track (STEM or not), party member status, parental education, work place (in village or not), risk attitude, and birth place (local or not).

evaluator's extra positiveness using the split-sample approach, we can estimate the effects using an interaction approach. Specifically, we can use the full sample and run a regression that includes three explanatory variables: "Supervisor 1 Evaluating" dummy, the "Masking" dummy, and their interactions. The regression results from this interaction approach are reported in Appendix Table A10, which carries similar information.

B. Proposition 2: Improved Work Performance under the Masked Scheme

As suggested by *Proposition 2*, the masked scheme could cause CGCSs to reallocate their efforts from evaluator-specific influence activities toward common productive tasks, leading to improved performance. To test this hypothesis, we evaluate the impacts of masking the evaluator's identity on a series of work performance measures. Table 3 presents the CGCSs' performance under a series of different performance indicators collected in our end-line surveys. We use the full sample of CGCSs (in both revealed and masked schemes), and estimate the following econometric model:

$$Y_{icst} = \alpha \cdot Mask_i + \gamma_c + \lambda_s + \phi_t + \epsilon_{icst} \quad (2)$$

where Y_{icst} is a performance measure for CGCS i, who is in county c, cohort t, and serves as CGCS type s. $Mask_i$ is a dummy variable indicating whether CGCS i belongs to the masked scheme. γ_c, λ_s, and ϕ_t stand for county FE, CGCS type FE, and cohort FE, respectively. Because the CGCSs were randomly assigned between the two evaluation schemes, α identifies the causal effect of being assigned to the masked scheme (relative to the revealed scheme). The standard errors are clustered at the work unit level.

The multi-dimensional and subjective nature of the CGCS jobs means that we are unable to collect comprehensive objective performance indicators that are interpersonally comparable across all CGCSs, which is why the government had to use a subjective evaluation scheme for CGCS promotion in the first place. That being said, as shown in Table 3, we try our best to paint a more complete picture of the CGCSs' performance under different evaluation schemes, by investigating a series of different performance indicators collected in our end-line surveys.

Colleague Assessments

First, in Table 3, Panel A, we investigate how colleague assessment of CGCS performance varies between the revealed and masked schemes. As explained in Section II(B), we consider

colleague assessment to be an informative measure of a CGCS's performance in the common productive tasks that benefit the organization, which, according to *Proposition 2*, should improve under the masked scheme.[28]

In Column (1), the dependent variable is the average colleague assessment of the CGCS's performance, which is framed relative to other civil servants employed in the same work unit. The assessment score in the questionnaire ranges from 1 to 7, representing different categories from "worse than all other colleagues" to "better than all other colleagues." Being assigned to the masked scheme led to significantly higher colleague assessment scores. To benchmark the treatment effect, in Appendix Table A11, we show that the improvement in colleague assessment associated with masking the evaluator's identity is comparable to the performance gap between four-year regular college graduates and three-year community college graduates. This result suggests that the treatment effect of the masked scheme is economically significant.

This is further corroborated by Columns (2) to (4). As shown in Column (2), when we asked colleagues whether they thought the CGCS's performance ranked in the top 10% of the organization, CGCSs in the masked scheme were significantly more likely to be recognized as top performers. In Column (3), we show that colleagues thought the CGCSs in the masked scheme were more hardworking. As Column (4) shows, when we asked colleagues, hypothetically, whether they would recommend to the provincial government that the CGCS be promoted to a permanent position in this office after finishing her two-year term, more colleagues responded that the CGCS deserves "tenure" under the masked scheme.[29]

Supervisor Assessments

Second, Table 3, Panel B shows how the assessments given by the supervisors change in the masked scheme. According to *Proposition 2,* we expect the non-evaluating supervisor to become more positive about CGCS performance under the masked scheme, while the change in the evaluating supervisor's assessment is theoretically ambiguous.[30]

In Column (1), the outcome variable is the mean assessment of the two supervisors. We find that masking the identity of the evaluator significantly improves average supervisor

[28] Colleagues observe CGCS performance closely, but their opinions are not included in the performance evaluation scheme, so a CGCS is not incentivized to adjust her efforts to improve colleague assessments.

[29] The question is hypothetical, since only the evaluating supervisor's assessment of CGCS performance eventually gets used in determining the CGCS's promotion; neither the non-evaluating supervisor's assessment, nor the colleagues' assessments receive any weight in that decision.

[30] In Appendix C, we use a numerical example to demonstrate the ambiguous impacts of the masked scheme on the evaluator's assessment.

assessment. In Columns (2) and (3), we document that the increase in mean supervisor assessment in Column (1) consists of an insignificant improvement in the evaluator's assessment and a significant improvement in the non-evaluator's assessment. This is consistent with the model's intuition that, when switching from the revealed scheme to the masked scheme, both supervisors benefit from increased CGCS efforts in the common productive dimensions, while the evaluator suffers from a reduction in evaluator-specific influence activities. As a result of these two forces, as shown in Column (4), the difference between supervisor assessments decreases in the masked scheme.[31]

Performance Pay

Third, in Panel C, we investigate the impacts of the masked scheme on monthly performance pay received by the CGCSs. Performance pay is explicitly tied to objective performance measures, such as attendance and working overtime. To the best of our knowledge, these monthly performance payments are not influenced by the yearly subjective performance evaluations, and can thus provide another independent (albeit incomplete) benchmark for CGCS performance.

Specifically, in the end-line survey, we asked each CGCS to report her total monthly remuneration, including basic wages and performance bonuses (if any), which we later verified using administrative information provided by the provincial governments. The basic wage is set by the county government and matches the entry-level permanent civil servant wage, so it should be exactly the same for all CGCSs within the same county, conditional on enrollment year and CGCS type. In addition to the basic wage, some work units have discretion over a modest amount of bonuses to reward the best performing employees (based on their own criteria). In Columns (1) and (2) of Panel C, we show that, on average, the CGCSs in the masked scheme earned 50 Chinese Yuan (2.3%) higher remunerations than those in the revealed scheme. Since the basic salary for CGCSs is fixed, this income gap reflects the difference in performance bonuses.

During our field interviews, we were informed that the CGCSs who work as nurses in township clinics enjoy the most substantial performance bonuses, because these clinics have a "business" feature and can keep some profits to reward the hardest-working staff. For nurses,

[31] The construction of the outcome variables in Table 3, Panel B requires that neither supervisor's assessment is missing in the endline survey, hence the smaller number of observations. As shown in Appendix Table A12, we find no evidence that the absence of the supervisor assessment variable is correlated with our experimental intervention. The results are also robust to the application of Lee bounds.

the number of night shifts taken each month is the main determinant of performance pay: every additional night shift is rewarded by about 20 Chinese Yuan (about $3). In Columns (3) and (4) of Panel C, when we restrict the sample to CGCSs working as nurses, we find an income gap greater than 115 Chinese Yuan (6.2%) between the two schemes. The compensation differential between the revealed and masked groups is therefore equivalent to nearly six additional night shifts per month. This result suggests that the performance improvement caused by the masked scheme is indeed substantial when benchmarked objectively.

Taken together, as reflected by colleague assessments, supervisor assessments, and performance pay, the evidence consistently suggests that CGCS performance improved in common productive dimensions, and the magnitude of this improvement is economically significant. These findings thus support *Proposition 2* of our model.

Furthermore, Figure 1 shows the distributions of the performance measures between the two evaluating schemes. In parallel with Table 3, for each of the three main performance indicators (average colleague assessment, average supervisor assessment, average salary), we plot its distributions under the revealed and masked schemes, respectively.[32] As we can see, the estimated impacts of the masked scheme are not driven by outliers, such as a few colleagues giving out minimum assessment scores under the revealed scheme. Instead, for each performance measure, the changes induced by the masked scheme appear to be spread out across the entire distribution. This pattern indicates that the masked scheme led to performance improvements for a wide range of CGCSs, rather than just a few of them concentrated in the tails of the performance distribution.

We check the robustness of the results in Table 3 in several ways. First, in Appendix Table A13, we present the main results controlling for variables chosen by the post-double-selection method using LASSO. Second, in Appendix Table A14, we control for all basic CGCS characteristics.[33] In both exercises, the results are similar to the baseline findings. We also correct for potential non-random sample selection by applying Lee bounds (Lee, 2009) and

[32] In Appendix Figure A3, we also separately plot the distributions of evaluator and non-evaluator assessment scores under the two schemes.

[33] Controls include the CGCS's age, gender, college major, college type, high school track (STEM or not), party member status, parental education, work place (in village or not), risk attitude, and birth place (local or not).

report the results in Appendix Table A15. We find that most of the bounds estimates are close to the baselines, although the estimates are noisier for performance pay measures.[34]

C. CGCS Promotion Outcomes

In principle, as long as the CGCSs perceive their evaluators' assessments to be important, such perceptions would generate incentives to engage in influence activities, regardless of whether or not the provincial governments eventually followed the evaluators' assessments. However, in a repeated game, it is important that the provincial governments live up to their promised evaluation schemes, in order to keep incentivizing future CGCSs. Therefore, we try to verify the extent to which evaluator assessments eventually affected the CGCSs' promotion chances, using administrative records on the assignment of permanent civil service positions among the CGCSs in our sample, upon the completion of their two-year contracts.

Table 4 summarizes our findings. We have three observations. First, there is a strong positive correlation between the evaluating supervisors' assessment and eventual promotions to permanent civil service positions. Our point estimate indicates that a one-point increase in evaluator assessment score (on a scale of 1 to 7) increases the CGCS's chance of promotion by 7.5%, confirming that the evaluating supervisors' opinions carry significant weights in promotion decisions. Second, conditional on the evaluators' assessments, the non-evaluators' opinions have no predictive power on the eventual promotion decisions. These patterns are salient in the full sample (Column (1), as well as in both the revealed (Column (2)) and masked (Column (3)) scheme subsamples. Third, the masking treatment does not have a strong impact on promotion, as shown in Column (4). While the estimated treatment effect is positive, it is small in magnitude and statistically insignificant. This result is consistent with our baseline finding: masking the identity of the evaluator mainly increases the non-evaluating supervisor's assessment, rather than the evaluating supervisor's assessment (Panel B of Table 3). Given that only the evaluating supervisor's assessment is taken into account for promotion decision, it is not surprising that there is no significant difference in promotion rates between the two evaluation schemes.[35]

[34] The larger standard errors in the Lee bounds estimates could be driven by the fact that we are unable to control for the full sets of fixed effects in this estimation procedure.

[35] In addition, in the end-line survey, 92% of the CGCSs reported to us that they were planning to apply for permanent civil service positions. As shown in Appendix Table A16, their intention to apply for the permanent positions is not correlated with the assessment scores provided by the two supervisors, nor is it affected by the

Taken together, these findings confirm the premise that the provincial governments rely heavily on the evaluators' assessments when making promotion decisions. This helps explain why revealing/masking the evaluators' identities has such salient impacts on the CGCSs' work behaviors.

We also investigate how introducing the masked scheme affects the selection into the public sector, by testing whether different types of CGCSs have different likelihoods of getting permanent positions under the revealed vs. masked schemes. As shown in Appendix Table A17, overall, introducing the masked scheme has a rather limited impact on political selection. That said, in Column (2), we do find suggestive evidence that the masked scheme is marginally more likely to result in the promotion of CGCSs who graduated from four-year regular colleges (as opposed to three-year community colleges). This is consistent with the masked scheme inducing positive political selection in terms of human capital.

V. Mechanisms

In this section, we discuss the mechanisms of our findings and investigate several alternative interpretations. Specifically, in Section V(A), we discuss evidence on productive vs. non-productive influence activities; in Section V(B), we discuss how influence activities are affected by the matching between CGCSs and supervisors; in Section V(C), we discuss alternative interpretations of asymmetric supervisor assessments under the revealed scheme; and, in Section V(D), we discuss alternative interpretations of the improved colleague and supervisor assessments under the masked scheme.

A. Types of Influence Activities

In this sub-section, we discuss the relevance of each type of influence activity – productive and non-productive – in our setting. In Table 5, we investigate the existence of productive influence activities under the revealed scheme. In the end-line survey, we asked each CGCS, "among all the job tasks you need to do, what is the proportion that is assigned by each supervisor?" In Column (1), we find that, if Supervisor 1 is chosen as the evaluator, the CGCS reports that she has more job tasks assigned by Supervisor 1. In addition, we asked each CGCS,

introduction of the masked scheme. In other words, our experiment does not change the CGCSs' willingness to work in civil service positions.

"is your most important job task assigned by Supervisor 1 or Supervisor 2?" As shown in Column (3), when Supervisor 1 has been revealed as the evaluator, the GCGS is more likely to think her most important job task is assigned by Supervisor 1. Finally, we asked the CGCS, "among all the job dimensions, in which dimension do you think you improved most in the past year?" We find that, when a job dimension is deemed important by the revealed evaluator, the CGCS is more likely to improve along this specific dimension (Column (5)). In contrast, none of these patterns exist under the masked scheme (Columns (2), (4), and (6)).

The results in Table 5 point to the prevalence of productive influence activities in our context. In contrast, for non-productive influence activities, while we cannot directly observe such behaviors, we try to gauge their existence through indirect evidence.

In Table 6, we infer the importance of non-productive influence activities by examining a series of value questions that we elicited from the CGCSs in our end-line survey. First, we asked the CGCSs, "what was the most challenging part of your CGCS experience?"[36] As shown in Table 6, Column (1), the CGCSs under the revealed scheme were significantly more likely to report that "handling personal relationships with the supervisors" was the most challenging part of their experience, as compared to their peers in the masked scheme. In contrast, as shown in Column (2), the proportion of CGCSs identifying "handling personal relationships with colleagues" as the most challenging part of the experience is the same across the two schemes. These two results are consistent with our model, in which the CGCS engaged in more non-productive influence activities under the revealed scheme than under the masked scheme, and did not have incentives to influence her colleagues under either scheme. We then asked each CGCS, "do you think the civil service system is meritocratic?" In Column (3), we find that the CGCSs under the masked scheme were significantly more likely to give a positive answer to this question. In Column (4), we also asked the CGCS, "do you think hard work pays off in your position?" Similarly, we find that the masked scheme made the CGCS more likely to believe that hard work pays off. These results are consistent with our interpretation that the CGCS reallocates her efforts from non-productive influence activities to common productive tasks under the masked scheme.

[36] The choices included "familiarizing myself with the local governance system," "handling the personal relationship with my supervisor," "handling personal relationships with my colleagues," "adjusting to life in a rural area," "working on tasks unrelated to my college major," "adjusting to unfamiliar work and life conditions," "getting useful work feedback," and "other challenges."

Admittedly, the suggestive evidence on non-productive influence activities is indirect and could potentially be reconciled with other interpretations. Therefore, one should interpret these findings with caution. That said, it is worth noting that, in our conceptual framework, productive and non-productive influence activities would co-move with each other, and thus have the same qualitative implications.

B. Evaluator Characteristics and Influence Activities

We also investigate how influence activities are affected by the characteristics of the randomized evaluators. One particularly important dimension of heterogeneity is whether a CGCS and her evaluator come from the same county, since "hometown favoritism" is well-documented as playing an important role in China's bureaucratic system (Fisman and Wang, 2015; Fisman et al., 2020). Specifically, hometown favoritism can be viewed as the gap in assessment scores between a "same-hometown evaluator" and a "different-hometown evaluator," holding constant the actual performance of the CGCS. Such favoritism can be decomposed into two parts: (1) the "top-down" preference, meaning that an evaluator would spontaneously assess a same-hometown CGCS more positively; and (2) the "bottom-up" influence activities, meaning that a CGCS would find it easier to influence an evaluator who is from the same hometown.

In the revealed scheme, the evaluator and the CGCS are made aware of each other's identity, so both "top-down preference" and "bottom-up influence" could be at work. In the masked scheme, however, the evaluator is aware of the identity of the CGCS, but not the other way around, which keeps the "top-down preference" while alleviating "bottom-up influence." Therefore, by comparing the magnitude of "hometown favoritism" across the revealed vs. masked schemes, we can infer the relative importance of influence activities.

The results are presented in Panel A of Table 7.[37] In Column (1), we find that, if the CGCS shares a hometown with the evaluator, the evaluator indeed gives a higher performance assessment, confirming the existence of hometown favoritism in this setting. Then, we examine this favoritism separately for the revealed-scheme sample and the masked-scheme sample in Columns (2) and (3). We find that the hometown favoritism can only be observed under the revealed scheme, but not under the masked scheme.

[37] The sample size is smaller due to missing values for supervisors' hometowns.

We can draw two conclusions from these results. First, because the "top-down" preference should remain the same across different evaluation schemes, the results suggest that the "bottom-up" influence activities are likely driving the observed hometown favoritism in our data. Second, because the assessment scores of both supervisors are uncorrelated with the "hometown tie" in the masked scheme, we can infer that, without influence activities from the CGCS, the hometown tie alone could not generate meaningful favoritism in this setting. These findings further testify to the importance of influence activities in China's bureaucratic system.

Following the same specification, in Panels B, C, and D of Table 7, we explore other dimensions of heterogeneity driven by CGCS-evaluator matching, such as "the evaluator being a party (rather than administrative) leader," "the evaluator and CGCS having the same gender," and "the evaluator and CGCS both graduated from college." We find that these other characteristics do not create significant heterogeneities in evaluation outcomes, in either the revealed or masked scheme. Taken together, these heterogeneity results are consistent with the conventional wisdom that "hometown ties (*Tongxiang*)" underlie the strongest connection in China's bureaucratic system.

C. Alternative Interpretations of Asymmetric Supervisor Assessments under the Revealed Scheme

Our interpretation of the findings in Table 2 is based on *Proposition 1*: in the revealed scheme, the CGCS is able to perform evaluator-specific influence activities. There are two potential confounding explanations.

1. Evaluating Supervisor Finding Out About His Role

In the revealed scheme, while the supervisors were not directly informed by the research team about their roles in the evaluation, it is still possible that some of them might have found out about this from the CGCSs. If the evaluator found out about his role, he might have solicited personal favors from the CGCS, which could have increased the influence activities practiced by the CGCS. Another possibility is that, knowing his role as evaluator, a supervisor might change his behaviors in supervising and evaluating the CGCS, such as paying closer attention to her work, providing more frequent feedback, or being more supportive of her career, which might affect his assessment scores through channels that are independent from influence activities. This type of evaluator behavioral change could potentially confound the empirical

patterns documented in Table 2 (i.e., asymmetry in supervisor assessments under the revealed scheme).

To examine this potential confounding mechanism, in Table 8, we directly investigate whether being selected as the evaluator changes a supervisor's supervising and evaluating patterns. As shown in Panel A, under the revealed scheme, there is no detectable difference between the randomized evaluators and non-evaluators along any behavioral dimensions that we could measure in the end-line survey: the total number of job tasks assigned to the CGCS, the number of important job tasks assigned to the CGCS, the number of words they used to describe the job tasks of the CGCS, their familiarity with the CGCS's work and life situations, and their response rate in our end-line survey. In Panel B, we see no systematic difference in supervisor behaviors under the masked scheme. Given these precisely estimated null results, it seems very unlikely that evaluator behavioral changes are driving the asymmetry in supervisor assessments that we observed in Table 2.

Furthermore, we attempt to directly measure whether the revealed-scheme evaluators figured out their roles, and whether this affected their behaviors. Specifically, in our end-line survey, for each supervisor under the revealed scheme, we directly asked him whether he was aware of his role in evaluating the CGCS.[38] It turns out that 65.5% of the revealed-scheme supervisors did not know whether they were chosen as evaluators until after they had finished their assessments of the CGCSs.

In Appendix Table A18, we re-estimate the specifications in Table 2 separately for the subsample in which supervisors did not know their evaluator roles, and the subsample in which supervisors did know their evaluator roles. We find that the asymmetry in supervisor assessments under the revealed scheme is almost identical in these two subsamples, suggesting that our results are not driven by some supervisors finding out about their roles in CGCS evaluation.[39] In addition, in Appendix Table A19, we further document that the evaluators who found out about their roles did not behave differently from their non-evaluating counterparts along any of the behavioral dimensions.

[38] This question was not asked of supervisors in the masked scheme. By construction, in the masked scheme, neither the CGCS nor her supervisors were informed about the identity of the chosen evaluator, and the supervisors couldn't possibly have found out about their roles.

[39] A related confounding mechanism is that an evaluator in the revealed scheme, after finding out about his role as evaluator, might look at the CGCS more kindly since he now felt "invested" in her career. However, this is inconsistent with our finding that, under the revealed scheme, the informed evaluators gave evaluations similar to those by the uninformed evaluators.

Taken together, these findings indicate that "the evaluator finding out about his role" has little to do with his supervising and evaluating behaviors.

2. More Information for the Evaluating Supervisor

Another confounding story is that the evaluating supervisor might receive more information regarding CGCS performance from various sources; the CGCS, colleagues, and the other (non-evaluating) supervisor might try to send signals to help him evaluate the CGCS. This increase in information might improve the evaluator's assessment and thus create the scoring asymmetry shown in Table 2. Again, we think this interpretation is unlikely to be of first-order importance, given that we never directly informed colleagues or supervisors about the evaluator's identity.

Nevertheless, we explicitly examine this alternative interpretation. In our end-line survey, we asked each supervisor, "how frequently did the CGCS, the colleagues of the CGCS, or the other supervisor discuss the CGCS's performance with you?" We are interested in whether the evaluating supervisor received more information than the non-evaluating supervisor from these three sources. In Appendix Table A20 we show that, relative to the non-evaluator, the evaluator did not gain extra information from any of these sources.[40] Therefore, the asymmetry in supervisor assessments under the revealed scheme cannot be explained by differences in information between the two supervisors.

D. Alternative Interpretations of Improved Assessments under the Masked Scheme

Our interpretation of the "improved colleague and supervisor assessments under the masked scheme" is based on *Proposition 2*: masking the evaluator's identity makes supervisor-specific influence activities less beneficial, which incentivizes the CGCSs to work harder on the common productive dimensions that are appreciated by both supervisors, resulting in better work performance. There are five potential confounding explanations.

1. CGCS Influencing Both Supervisors More

The first alternative interpretation is that, under the masked scheme, the CGCS did not work harder on common productive dimensions. Instead, she simply extended more influence

[40] If anything, the evaluator was 3% less likely to receive information regarding CGCS performance from colleagues, although the coefficient is small in magnitude and only marginally significant.

activities toward both supervisors, which is why we see improved average supervisor assessment. However, this interpretation is inconsistent with a series of empirical results.

First, it is inconsistent with the fact that colleague assessments are substantially better under the masked scheme. As explained in Section II, a CGCS has no systematic incentive to influence her colleagues; every CGCS is clearly informed that only her evaluating supervisor's opinion will be taken into account by the provincial government, and colleague assessments will not enter into her promotion case. Therefore, if the CGCS is simply extending more influence activities toward both supervisors, rather than working harder, there should not be a significant improvement in average colleague assessment.

Second, if the CGCS is engaging in more influence activities instead of working harder, we should not observe objective performance improvements under the masked scheme. As discussed in Section IV, CGCSs under the masked scheme receive substantially higher performance bonuses, which are directly linked to objective performance indicators. This, again, supports our interpretation and contradicts the competing hypothesis.

Third, as documented in Table 6, under the masked scheme, the CGCSs are less worried about handling personal relationships with supervisors, as compared to their peers under the revealed scheme. This is also consistent with a reduction in influence activities, rather than extending influence activities to both supervisors, under the masked scheme.

2. CGCS Influencing Colleagues under the Masked Scheme

Suppose that CGCSs, for whatever reason, tried to influence their colleagues, and did so to a larger extent under the masked scheme. Could this be confounding our results on improved colleague assessments under the masked scheme? To begin with, this interpretation is inconsistent with the result in Table 6 Column (2), which shows that the proportion of CGCSs worrying about "handling personal relationships with colleagues" remains the same across both schemes. It is also inconsistent with the increase in performance pay, which is linked to objective performance indicators rather than supervisor or colleague assessments.

To further rule out this confounding interpretation, we examine whether there exists hometown favoritism in colleague assessment. Recall that, in Table 7, we document the existence of hometown favoritism in supervisor assessment and show that "bottom-up influence activities" are driving such favoritism. We conduct a similar exercise using colleague assessment and check whether the CGCSs had incentives to influence their colleagues under

the masked scheme. As shown in Appendix Table A21, a "same hometown colleague" does not show differential positiveness across the two schemes. This result further suggests that the CGCSs were unlikely to engage in additional influence activities toward colleagues under the masked scheme.

3. Higher Information Quality under the Masked Scheme

Another possibility is that supervisors in the masked scheme get better information on CGCS performance, which might explain the increase in average supervisor assessment. To investigate this channel, in the end-line survey, we directly asked the supervisors about the sources from which they get information on CGCS performance (i.e., from CGCS or from other colleagues). In Appendix Table A22, we examine whether supervisors received additional information on CGCS performance under the masked scheme, either from colleagues or from the CGCS herself. We find that the masked scheme did not increase the frequency of CGCSs and other colleagues reporting to either the evaluating supervisor or the non-evaluating supervisor regarding CGCS performance. This suggests that improved supervisor assessments in the masked scheme cannot be explained by changes in information quality.

4. Behavioral Changes from the Supervisors

As explained in Section V(C), whether the evaluator knew about his role in the evaluation had limited impacts on his behavior. To further rule out the possibility that the treatment effects of the masked scheme might be confounded by some evaluators finding out about their roles under the revealed scheme (and by construction, not under the masked scheme), we compare CGCSs in the masked scheme to the subsample of revealed-scheme CGCSs whose evaluators know their roles, as well to the subsample of revealed-scheme CGCSs whose evaluators do *not* know their roles, respectively. As shown in Appendix Table A23, the main findings in Table 3 remain robust when we use either subsample as the control group, suggesting that the impacts of the masked scheme are not driven by behavioral changes from supervisors who found out about their roles.

5. CGCS Gets Discouraged when Matched to "Hostile Evaluator" under Revealed Scheme

A remaining possibility is that, under the revealed scheme, some CGCSs might be matched with an evaluator whom they perceive as hostile, in that, no matter how hard the CGCS works,

efforts will not be appreciated by this evaluator. As a result, the CGCSs get discouraged and put little effort into productive tasks, which might explain why performance is higher under the masked scheme.

In our baseline survey, before the randomizations of schemes and evaluators were realized, we asked each CGCS, "among the two supervisors, whom would you prefer to be your evaluator?" Due to randomization, half of the CGCSs under the revealed scheme would be evaluated by their "non-preferred" supervisor, and the other half evaluated by their "preferred" supervisor. Since the "discouragement" mechanism should operate only through those evaluated by the non-preferred supervisor, we can compare performance differences between CGCSs facing the preferred supervisor under the revealed scheme and those under the masked scheme. If discouragement were driving the observed improvement in CGCS performance, we should expect the performance improvement under the masked scheme to disappear in this restricted comparison. However, as shown in Appendix Table A24, the masking effect remains similar in this subsample analysis, providing evidence against the "discouragement" interpretation.

VI. Conclusion

Subjective evaluations are widely used in both the private and public sectors, especially in contexts where job tasks are inherently multi-dimensional and vaguely defined, making it impossible to obtain sharp objective measures of employee effort and performance. A key limitation to subjective evaluation is that it may distort the employee's incentives and make her more likely to cater to the evaluator's personal tastes or private interests rather than focusing on productive tasks that benefit the whole organization. Until now, rigorous empirical evidence on the existence and implications of influence activities has remained scarce.

To shed light on this topic, we conducted a large-scale field experiment, where we helped the government randomize two subjective performance evaluation schemes among 3,785 junior state employees in China. In the "revealed" scheme, we randomly chose one of the two supervisors as the performance evaluator and informed the subordinate *ex-ante* about the evaluator's identity. Under this scheme, as expected, subordinates were induced to engage in evaluator-specific influence activities to improve their evaluation outcomes, which in turn would affect their promotion to permanent civil service positions.

In the "masked" scheme, we randomly chose one of the two supervisors as the performance evaluator, but the identity of the evaluator was not disclosed to the subordinate, which reduced the expected return to supervisor-specific influence activities. We hypothesized that masking the evaluator's identity would encourage the subordinate to reallocate her efforts from influence activities toward common productive dimensions that could be appreciated by both supervisors. We find that the masked evaluation scheme indeed improved the subordinate's work performance, as measured by average colleague assessments, average supervisor assessments, and monthly bonus payments determined by objective performance indicators.

We also distinguish between two types of influence activities. On the one hand, there are productive influence activities, where a multi-tasking agent works harder on tasks that are assigned or better observed by the evaluating supervisor. On the other hand, there could also be non-productive influence activities, where the agent will try to benefit the evaluator through personal favors that go beyond her mandated tasks. We find consistent evidence demonstrating that productive influence activities are prevalent in China's local bureaucratic system, and some suggestive evidence indicating that non-productive influence activities might also exist.

In addition to providing rigorous empirical evidence on the existence and implications of influence activities, our findings also have important policy implications. In a setting where multiple individuals could potentially assess an employee's performance with similar information quality, introducing uncertainty about the evaluator's identity (which has minimal implementation cost) can significantly improve the job performance of government employees.[41] Further, this uncertainty results in more state employees believing that hard work pays off and that the bureaucratic system is meritocratic. These belief changes should have far-reaching consequences for the working culture and ethics of the Chinese government. Given that the vast majority of civil service jobs rely heavily on subjective performance evaluations, and given that every level of bureaucracy in China follows a dual-leadership structure, our findings should have direct implications for the more than 50 million state employees in China.

[41] It is worth noting that, if there exists one supervisor that is systematically better at observing and assessing employee performance, and the organization can accurately identify this supervisor and commit to choosing him as the evaluator, then the masked scheme might not lead to better employee performance.

Going beyond the context of the Chinese bureaucracy, organizations around the world have increasingly adopted and institutionalized various dual-leadership arrangements, such as pairing a chief executive officer (CEO) with a chief operating officer (COO) in private firms, and "Office of the President" arrangements in public institutions (Miles and Watkins, 2007; Williams and Scott, 2012). In these settings, when high-stakes rewards are linked to the subjective opinions of designated evaluators, introducing uncertainty in the subjective evaluation scheme could potentially lead to performance improvements. More generally, as pointed out by Ederer et al. (2018), even in objective incentive schemes, when there exist moral hazard problems due to the agent's superior knowledge of the environment, introducing uncertainty in the payment rule could systematically reduce gaming and improve performance.

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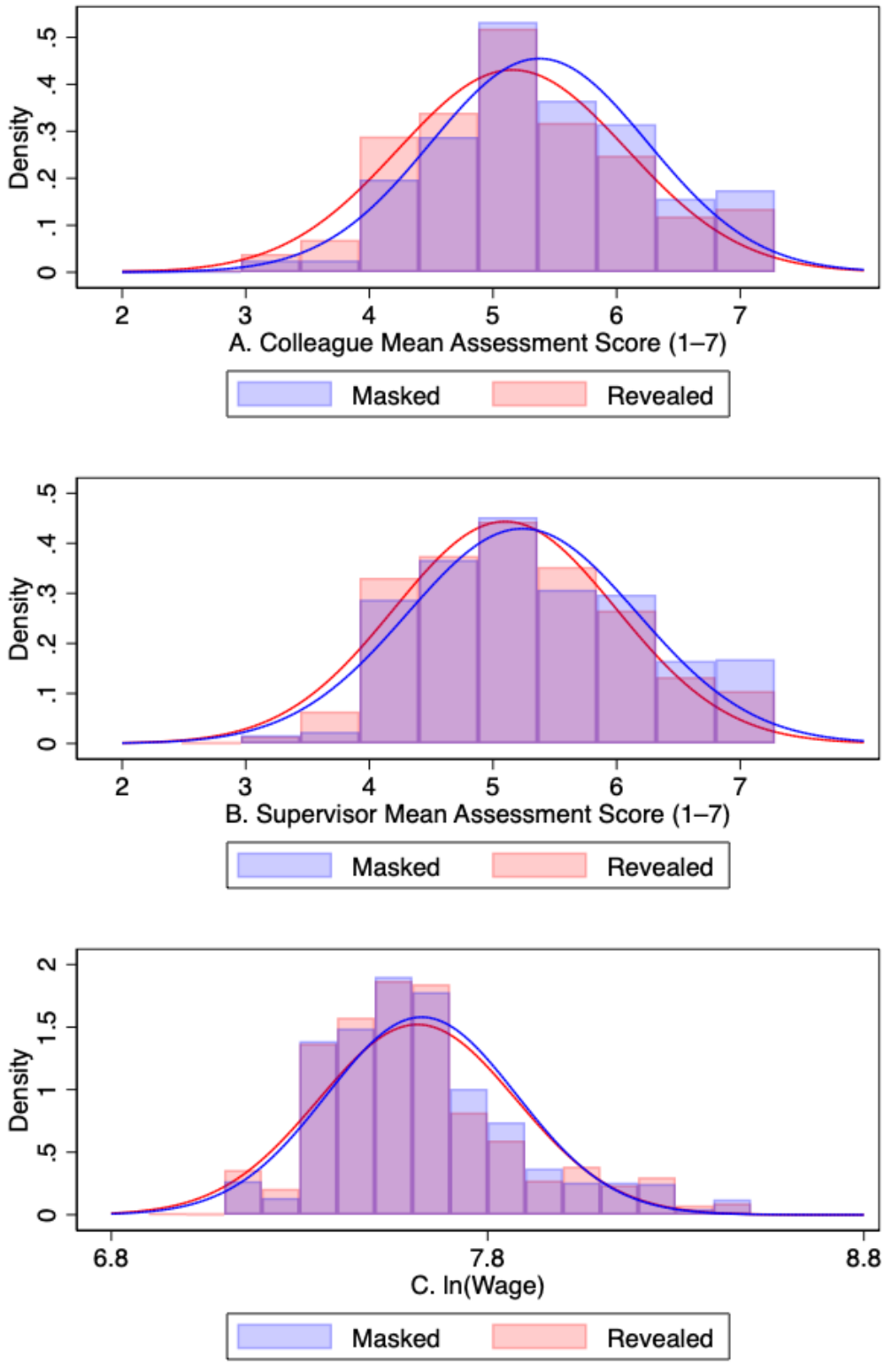

Figure 1. Performance Differences Between the Two Evaluation Schemes

Notes: This figure plots the distributions of three performance measures separately for the masked (light blue) and revealed group (light red). Normal distribution curves are overlaid onto the associated histograms, i.e., the blue line for the blue histogram and the red line for the red histogram.

Table 1. Balance Check: CGCS Characteristics

	Revealed Scheme	Masked Scheme	Difference
	(1)	(2)	(3)
Age	24.868	24.928	0.039
	(1.630)	(1.604)	(0.061)
Female	0.592	0.600	0.009
	(0.492)	(0.490)	(0.019)
Social Science Major	0.555	0.545	-0.015
	(0.497)	(0.498)	(0.020)
4-Year College or Above	0.723	0.724	-0.004
	(0.448)	(0.447)	(0.017)
STEM Students in High School	0.347	0.342	-0.006
	(0.476)	(0.475)	(0.020)
Party Member	0.217	0.218	-0.002
	(0.412)	(0.413)	(0.017)
Parent Completing College	0.288	0.285	-0.005
	(0.453)	(0.452)	(0.019)
Work in Village	0.160	0.150	-0.012
	(0.366)	(0.357)	(0.015)
CEE Score (100 points)	4.803	4.832	0.045
	(0.715)	(0.702)	(0.035)
Risk Averse	0.471	0.477	-0.000
	(0.499)	(0.500)	(0.021)
Locally Born	0.684	0.678	0.002
	(0.465)	(0.468)	(0.016)
Joint Test P-Value	-	-	0.54
Obs.	1,935	919	2,854

Notes: The first two columns summarize the mean and standard deviation of CGCS characteristics. Column (1) uses the sample of CGCSs in the revealed scheme, Column (2) uses the sample of CGCSs in the masked scheme. Column (3) checks the covariate balance between the revealed group and the masked group, controlling for county FE, CGCS type FE, and cohort FE, with standard errors clustered at the work unit level. A joint significance test of all variables presented in the table yields an F-statistic of 0.90 with the corresponding p-value of 0.54.

Table 2. Revealing Supervisor Identity Leads to Evaluation Asymmetry

	Supervisor 1's Score Minus Supervisor 2's Score		Supervisor 1 is More Positive Than Supervisor 2	
	(1)	(2)	(3)	(4)
Supervisor 1 Evaluating	0.311	-0.097	0.075	0.024
	(0.082)	(0.121)	(0.028)	(0.042)
Sample	Revealed	Masked	Revealed	Masked
DV Mean	-0.03	-0.00	0.29	0.29
DV S.D.	1.31	1.22	0.45	0.45
Obs.	1,300	580	1,300	580
R-Squared	0.161	0.243	0.163	0.275

Notes: This table tests whether revealing the identity of the evaluator to the CGCS affects the evaluator's assessment of the CGCS's job performance. Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Columns (1) and (3) use data from the revealed scheme only; Columns (2) and (4) use data from the masked scheme only. A joint significance test of outcome variables in the revealed scheme (Columns (1) and (3)) yields an F-statistic of 7.63 with the corresponding p-value of 0.00. A joint significance test of outcome variables in the masked scheme (Columns (2) and (4)) yields an F-statistic of 1.74 with the corresponding p-value of 0.18. The p-value for a chi-2 test of coefficient equality between Column (1) and Column (2) is 0.00. The p-value for a chi-2 test of coefficient equality between Column (3) and Column (4) is 0.25. Standard errors clustered at the work unit level are reported below the coefficients.

Table 3. Impacts of Masking the Evaluator's Identity on Performances

	(1)	(2)	(3)	(4)
Panel A. Performances Evaluated by Colleagues				
	Performance (1-7)	Top 10%	Hardworking	Qualify for Tenure
Masking	0.217	0.077	0.028	0.035
	(0.035)	(0.013)	(0.012)	(0.011)
DV Mean	5.23	0.71	0.43	0.87
DV S.D.	0.92	0.33	0.43	0.26
Obs.	2,837	2,837	2,837	2,837
Panel B. Performances Evaluated by Supervisors				
	Mean Assessment (1-7)	Evaluator Assessment	Non-Evaluator Assessment	Assessment Deviation
Masking	0.139	0.049	0.215	-0.100
	(0.046)	(0.055)	(0.059)	(0.050)
DV Mean	5.14	5.19	5.11	0.90
DV S.D.	0.91	1.12	1.10	0.93
Obs.	1,940	1,940	1,940	1,940
Panel C. Performance Pay				
	Wage	ln(Wage)	Wage: Medical Support	ln(Wage: Medical Support)
Masking	48.81	0.02	115.54	0.05
	(22.41)	(0.01)	(61.94)	(0.03)
DV Mean	2103.73	7.61	1851.58	7.51
DV S.D.	644.66	0.26	349.31	0.16
Obs.	2,750	2,750	193	193

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. A joint significance test of all the outcome variables in Panel A yields an F-statistic of 11.36 with the corresponding p-value of 0.00. A joint significance test of all the outcome variables in Panel B yields an F-statistic of 6.32 with the corresponding p-value of 0.00. Standard errors clustered at the work unit level are reported below the coefficients.

Table 4. Performance Evaluation and Tenure Decisions

	CGCS Tenured			
	(1)	(2)	(3)	(4)
Evaluating Sup's Score	0.073	0.074	0.073	
	(0.011)	(0.013)	(0.022)	
Non-Evaluating Sup's Score	0.015	0.020	0.006	
	(0.011)	(0.014)	(0.022)	
Masking				0.014
				(0.024)
DV Mean	0.45	0.44	0.47	0.45
DV S.D.	0.50	0.50	0.50	0.50
Obs.	1,940	1,300	580	1,940
Sample	All	Revealed	Masked	All

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. The outcome variable is whether a CGCS becomes "tenured" after his two-year contract. The p-value for a chi-2 test of coefficient equality between Column (2) and Column (3) for "Evaluating Sup's Score" is 0.95 and the corresponding p-value for "Non-Evaluating Sup's Score" is 0.54. Standard errors clustered at the work unit level are reported below the coefficients.

Table 5. Evidence on the Existence of Productive Influence Activities under the Revealed Scheme

	Ratio of Job Tasks Assigned by Supervisor 1 (Reported by CGCS)		The Most Important Job Task is Guided by Supervisor 1 (Reported by CGCS		CGCS Improved More in Areas Deemed Important by Sup 1 (Relative to Sup 2)	
	(1)	(2)	(3)	(4)	(5)	(6)
Supervisor 1 Evaluating	0.031	-0.015	0.072	-0.015	0.132	-0.006
	(0.014)	(0.023)	(0.032)	(0.050)	(0.058)	(0.095)
Sample	Revealed	Masked	Revealed	Masked	Revealed	Masked
DV Mean	0.48	0.49	0.44	0.46	0.04	-0.03
DV S.D.	0.24	0.24	0.50	0.50	1.06	1.04
Obs.	1,482	659	1,134	529	1,482	659

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. A joint significance test of outcome variables in the revealed scheme (Columns (1), (3), and (5)) yields an F-statistic of 1.93 with the corresponding p-value of 0.10. A joint significance test of outcome variables in the masked scheme (Columns (2), (4), and (6)) yields an F-statistic of 0.39 with the corresponding p-value of 0.81. The p-value for a chi-2 test of coefficient equality between Column (1) and Column (2) is 0.03. The p-value for a chi-2 test of coefficient equality between Column (3) and Column (4) is 0.05. The p-value for a chi-2 test of coefficient equality between Column (5) and Column (6) is 0.06. Standard errors clustered at the work unit level are reported below the coefficients.

Table 6. Treatment Effects on Influence Activities and Work Efforts

	CGCS Challenge: Supervisor Relationship	CGCS Challenge: Colleague Relationship	CGCS Belief: Civil Service is Meritocratic	CGCS Belief: Hardwork Pays Off
	(1)	(2)	(3)	(4)
Masking	-0.030	-0.003	0.017	0.024
	(0.014)	(0.009)	(0.009)	(0.012)
DV Mean	0.15	0.05	0.94	0.90
DV S.D.	0.36	0.22	0.23	0.30
Obs.	2,839	2,839	2,839	2,839

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. A joint significance test of outcome variables in Columns (1), (3), and (4) yields an F-statistic of 2.42 with the corresponding p-value of 0.06. The p-value for a chi-2 test of coefficient equality between Column (1) and Column (2) is 0.09. Standard errors clustered at the work unit level are reported below the coefficients.

Table 7. Evaluation Characteristics and Influence Activities

	Evaluator Assessment Score			Non-Evaluator Assessment Score		
	Full Sample	Revealed Sample	Masked Sample	Full Sample	Revealed Sample	Masked Sample
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Home Town Favoritism and Influence Activities						
Same Home	0.102	0.189	-0.067	-0.016	-0.045	0.046
Town	(0.051)	(0.067)	(0.088)	(0.049)	(0.060)	(0.100)
Obs.	2,307	1,548	700	2,274	1,542	676
Panel B. Party-Leader Specific Impacts						
Party Leader	0.041	0.023	0.045	-0.007	-0.063	0.076
Evaluator	(0.046)	(0.058)	(0.091)	(0.048)	(0.058)	(0.098)
Obs.	2,307	1,548	700	2,274	1,542	676
Panel C. Gender-Specific Impacts						
Same Gender	-0.024	0.003	-0.030	0.000	0.008	-0.063
Evaluator	(0.050)	(0.064)	(0.094)	(0.051)	(0.061)	(0.106)
Obs.	2,307	1,548	700	2,274	1,542	676
Panel D. Same Education Impacts						
Same Educ	-0.023	0.055	-0.195	0.016	-0.006	0.080
Evaluator	(0.070)	(0.087)	(0.130)	(0.065)	(0.079)	(0.126)
Obs.	2,179	1,454	670	2,149	1,449	642

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Columns (1) and (4) use the full sample of CGCSs, Columns (2) and (5) use the sample of CGCSs in the revealed scheme, Columns (3) and (6) use the sample of CGCSs in the masked scheme. For Panel A, the p-value for a chi-2 test of coefficient equality between Column (2) and Column (3) for the "Same Home Town" variable is 0.01, and the p-value for a chi-2 test of coefficient equality between Column (5) and Column (6) is 0.39. For other panels, we cannot reject the null hypothesis that the estimated coefficient is equal between the revealed scheme and the masked scheme. Standard errors clustered at the work unit level are reported below the coefficients.

Table 8. Behavioral Changes of the Evaluating Supervisors

	Tasks Assigned Reported by Supervisors (Sup1-Sup2)	List the # of CGCS' Main Tasks (Sup1-Sup2)	# of Words in Describing CGCS's Job Tasks (Sup1-Sup2)	Familiar with Work (Sup 1-Sup 2)
	(1)	(2)	(3)	(4)
Panel A. Revealed Scheme				
Supervisor 1 Evaluating	-0.590	0.233	0.614	0.527
	(0.649)	(0.236)	(0.528)	(1.056)
DV Mean	-0.91	-0.34	-0.99	-0.50
DV S.D.	10.36	3.71	8.75	17.43
Obs.	1,288	1,300	1,300	1,300
Panel B. Masked Scheme				
Supervisor 1 Evaluating	-1.187	0.081	0.362	0.041
	(1.062)	(0.393)	(0.736)	(1.591)
DV Mean	-0.98	-0.33	-1.18	0.48
DV S.D.	10.49	3.83	8.22	17.56
Obs.	577	580	580	580

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort e
A joint significance test of all the outcome variables in Panel A yields an F-statistic of 0.58 with the correspondi
test of all the outcome variables in Panel B yields an F-statistic of 0.49 with the corresponding p-value of 0.78. V
the estimated coefficient is equal between the revealed scheme and the mask scheme for all the outcome variabl
unit level are reported below the coefficients.

Online Appendix

Subjective Performance Evaluation, Influence Activities, and Bureaucratic Work Behavior: Evidence from China

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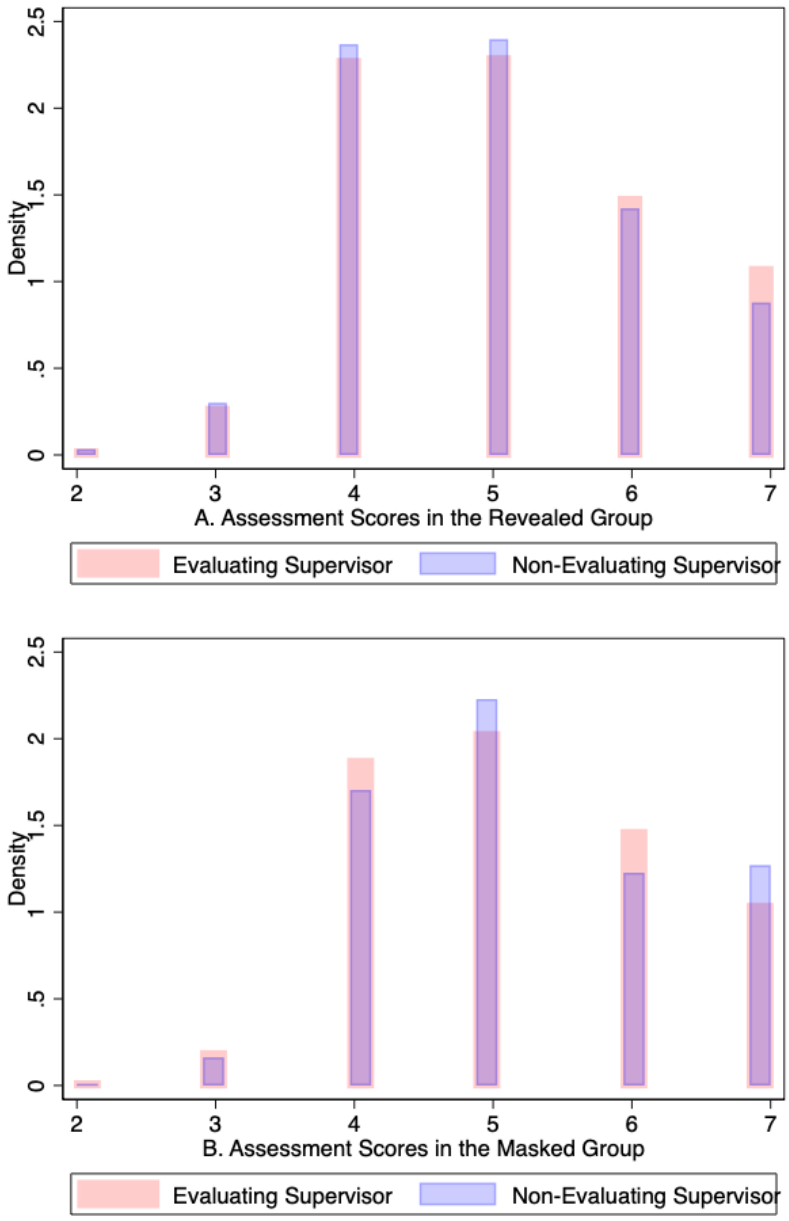
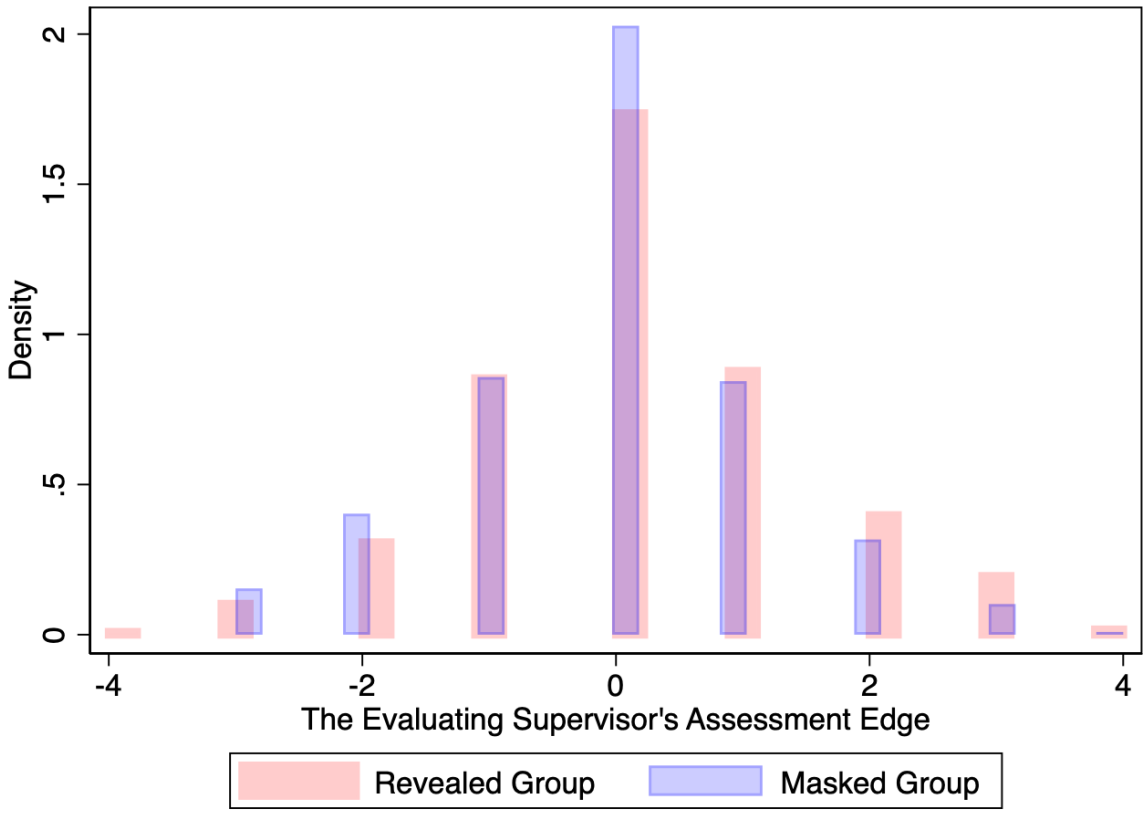
APPENDIX A. FIGURES AND TABLES



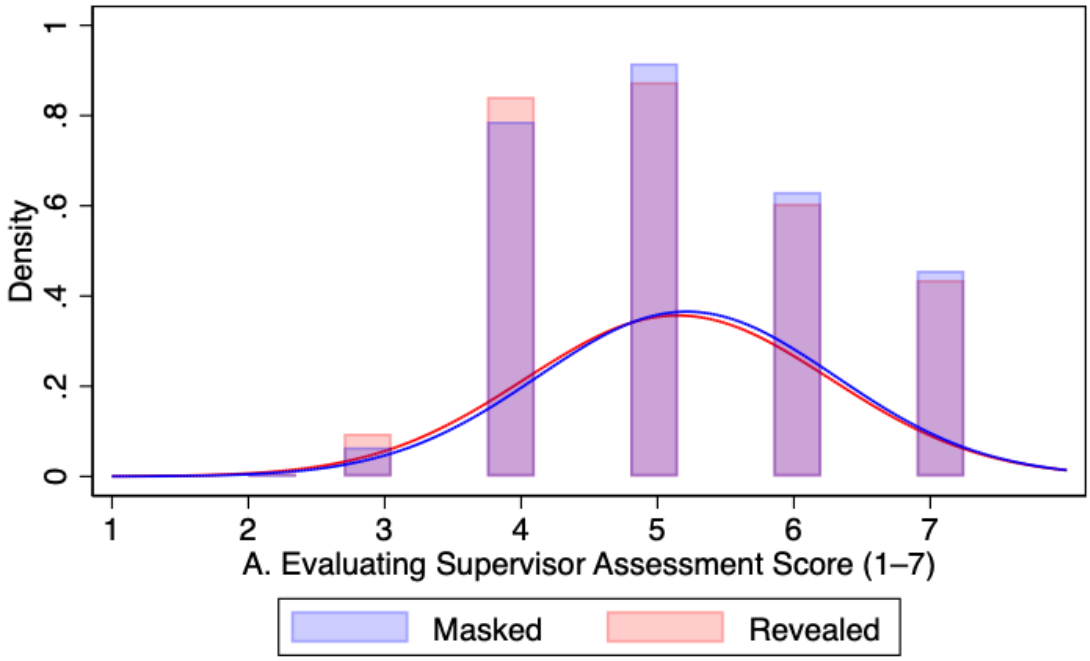
Appendix Figure A1. Distributions of the Supervisors' Assessment Scores Between the Two Evaluation Schemes

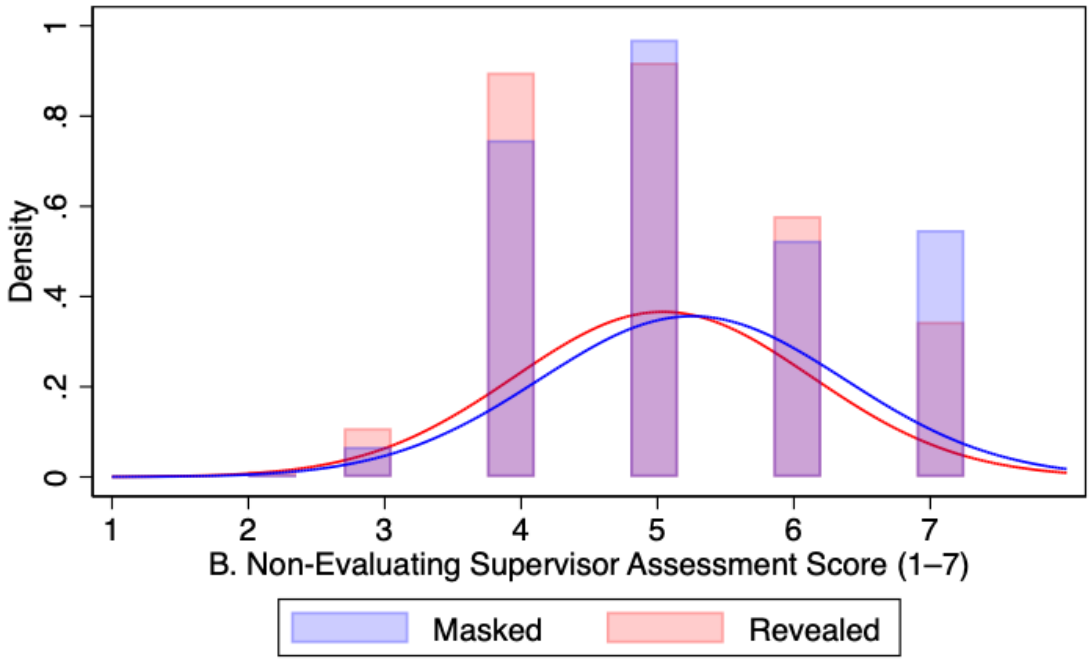
Notes: Panel A plots the histograms of the performance assessment scores from the evaluating supervisors (light red) and non-evaluating supervisors (light blue) in the revealed group; Panel B plots the histograms of the performance assessment scores from the evaluating supervisors (light red) and non-evaluating supervisors (light blue) in the masked group.



Appendix Figure A2. Distributions of the Evaluator's Assessment Edge Between the Two Evaluation Schemes

Notes: This figure plots the histograms of the "assessment edge" variable separately for the revealed group (light red) and the masked group (light blue). The assessment edge is defined as the evaluating supervisor's extra positiveness in assessing the CGCS's performance over the non-evaluating supervisor's.





Appendix Figure A3. Distributions of the Supervisor Assessment Scores Between the Two Evaluation Schemes

Notes: Panel A plots the histograms of the performance assessment scores from the evaluating supervisors between the revealed group (light red) and masked group (light blue); Panel B plots the histograms of the performance assessment scores from the non-evaluating supervisors between the revealed group (light red) and masked group (light blue).

Table A1. Key Variables and Their Sources

Variable List	Data Source
Supervisor Assessment Score	End-line Supervisor Survey
Supervisor Hometown	
Supervisor Type (Party vs. Administrative)	
Supervisor Education	
Supervisor Gender	
Other Supervisor Characteristics	
Tasks Assigned Reported by Supervisors	
Meeting Frequency	
List the # of CGCS' Main Tasks	
# of Words in Describing CGCS's Job Tasks	
Familiarity with CGCS Work	
Familiar with CGCS Personal Life	
Supervisor Not Responding to the Survey	
Supervisor's Information Source of CGCS Performance	
Colleague Performance Assessments	End-line Colleague Survey
Colleagues' Guess of Supervisor Assessments	
Other Colleague Characteristics	
CGCS Promotion Outcomes	Administrative Data from Government Partners
CGCS Intention to Apply for Permanent Positions	End-line CGCS Survey
CGCS-Reported Job Task Assignments	
CGCS-Reported Job Task Importance	
CGCS-Reported Performance Improvements	
CGCS-Reported Challenges with the Job	
CGCS-Reported Beliefs on Meritocracy and Hard Work	
Performance Pay	
CGCS Personality Traits	Baseline CGCS Survey
Preferred Evaluator by CGCS	
CGCS Education Level	
CGCS Hometown	
CGCS Gender	
Other CGCS Characteristics	

Table A2. Characteristics of CGCSs' Colleagues and Balance Checks

	Revealed Scheme	Masked Scheme	Difference
	(1)	(2)	(3)
Colleague Age	34.568	34.401	-0.282
	(8.993)	(8.780)	(0.259)
Colleague Female	0.571	0.568	-0.010
	(0.495)	(0.495)	(0.013)
Colleague Education	3.467	3.444	-0.021
	(0.721)	(0.700)	(0.019)
Colleague Tenured	0.730	0.732	0.002
	(0.444)	(0.443)	(0.012)
Meet Frequency with CGCS	4.745	4.759	0.013
	(0.731)	(0.691)	(0.020)
Know CGCS work Well (0-10)	9.272	9.305	0.020
	(1.257)	(1.229)	(0.034)
Know CGCS life Well (0-10)	8.300	8.383	0.066
	(2.046)	(1.998)	(0.059)
Colleague Self Assessment (1-7)	4.445	4.500	0.054
	(1.215)	(1.206)	(0.031)
Joint Test P-Value	-	-	0.29
Obs.	6,374	2,981	9,355

Notes: Column (1) summarizes the mean and standard deviation of colleagues' characteristics in the revealed scheme. Column (2) summarizes the mean and standard deviation of colleagues' characteristics in the masked scheme. Column (3) checks the covariate balances between the revealed group and the masked group. Education is measured by a categorical variable (primary school =1, junior high =2, senior high=3, 3-year college =4, 4-year college =5, graduate school=6). Standard errors clustered at the work unit level are reported in the parentheses. A joint significance test of all variables presented in the table yields an F-statistic of 1.21 with the corresponding p-value of 0.29.

Table A3. Characteristics of Supervisors and Balance Checks

	Revealed Scheme	Masked Scheme	Difference
	(1)	(2)	(3)
Evaluator Female	0.234	0.206	-0.020
	(0.423)	(0.404)	(0.019)
Evaluator Age	43.438	43.506	0.112
	(7.544)	(7.374)	(0.347)
Evaluator Work Exp (Years)	7.004	6.891	0.021
	(3.321)	(3.411)	(0.185)
Evaluator Education	4.656	4.671	0.016
	(0.601)	(0.598)	(0.029)
Evaluator Party Leader	0.484	0.498	0.005
	(0.500)	(0.500)	(0.021)
Non-Evaluator Female	0.240	0.225	-0.007
	(0.427)	(0.418)	(0.020)
Non-Evaluator Age	43.327	42.758	-0.464
	(7.990)	(7.508)	(0.352)
Non-Evaluator Work Exp (Years)	6.790	6.938	0.237
	(3.372)	(3.400)	(0.189)
Non-Evaluator Education	4.690	4.683	-0.004
	(0.601)	(0.561)	(0.028)
Non-Evaluator Party Leader	0.513	0.502	-0.003
	(0.500)	(0.500)	(0.021)
Joint Test P-Value	-	-	0.86
Obs.	1,935	919	2,854

Notes: Column (1) summarizes the mean and standard deviation of supervisors' characteristics in the revealed scheme. Column (2) summarizes the mean and standard deviation of supervisors' characteristics in the masked scheme. Column (3) checks the covariate balances between the revealed group and the masked group. Education is measured by a categorical variable (primary school =1, junior high =2, senior high=3, 3-year college =4, 4-year college =5, graduate school=6). Standard errors clustered at the work unit level are reported in the parentheses. A joint significance test of all variables presented in the table yields an F-statistic of 0.52 with the corresponding p-value of 0.86.

Table A4. Evaluator and Non-Evaluator under Revealed Scheme: Balance Test

	Evaluator (Revealed)	Non-Evaluator (Revealed)	Difference
	(1)	(2)	(3)
Female	0.240	0.234	-0.012
	(0.427)	(0.423)	(0.015)
Age	43.327	43.438	0.178
	(7.990)	(7.544)	(0.258)
Work Experience	6.790	7.004	0.213
(Years)	(3.372)	(3.321)	(0.136)
Education	4.690	4.656	-0.033
	(0.601)	(0.601)	(0.021)
Party Leader	0.513	0.484	-0.029
	(0.500)	(0.500)	(0.023)
Joint Test P-Value	-	-	0.06
Obs.	1,935	1,935	3870

Notes: We keep the subsample of all CGCS supervisors under the revealed scheme. Column (1) summarizes the mean and standard deviation of evaluating supervisors' characteristics, Column (2) summarizes the mean and standard deviation of non-evaluating supervisors' characteristics. Column (3) checks the covariate balances between the two groups controlling for county FE, CGCS type FE, and cohort FE. Education is measured by a categorical variable (primary school =1, junior high =2, senior high=3, 3-year college =4, 4-year college =5, graduate school=6). Standard errors clustered at the work unit level are reported in the parentheses. A joint significance test of all variables presented in the table yields an F-statistic of 2.12 with the corresponding p-value of 0.06.

Table A5. Test for CGCS Attrition by Different Types

	Total Attrition	Re-assignment	Quitting
	(1)	(2)	(3)
Masking	-0.010	-0.014	0.008
	(0.014)	(0.010)	(0.010)
Obs.	3,779	3,779	3,779
R-Squared	0.116	0.066	0.066

Notes: This table tests if masking the identity of the evaluator affects the attrition of CGCSs. Each column represents a separate OLS regression. Standard errors clustered at county level are reported below the coefficients.

Table A6. Test for Attrition by Different Characteristics

	Attrition										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Masking	-0.015	0.024	0.202	0.101	0.011	0.008	0.003	0.006	-0.010	-0.025	-0.033
	(0.048)	(0.027)	(0.132)	(0.235)	(0.021)	(0.017)	(0.017)	(0.019)	(0.020)	(0.021)	(0.026)
X	-0.010	0.083	0.000	0.015	-0.015	0.077	0.031	0.022	-0.039	-0.023	-0.021
	(0.022)	(0.020)	(0.000)	(0.006)	(0.017)	(0.023)	(0.027)	(0.018)	(0.018)	(0.017)	(0.020)
Mask*X	0.009	-0.038	-0.000	-0.004	-0.031	-0.045	-0.039	-0.026	0.019	0.045	0.043
	(0.036)	(0.033)	(0.000)	(0.009)	(0.030)	(0.039)	(0.046)	(0.031)	(0.030)	(0.030)	(0.032)
X Indicates:	Party Member	4-Y College	CEE Score	Age	Female	Parent College	Village Work	STEM	SOSC	Risk Averse	Born Locally
Obs.	3,742	3,742	2,423	3,742	3,742	3,742	3,742	3,742	3,742	3,742	3,742
R-Squared	0.148	0.153	0.183	0.150	0.149	0.152	0.149	0.149	0.150	0.149	0.149

Notes: This table tests if masking the identity of the evaluator affects the attrition of CGCSs. Each column represents a separate OLS regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Standard errors clustered at the work unit level are reported below the coefficients.

Table A7. Revealing Supervisor Identity Leads to Evaluation Asymmetry

	Supervisor 1's Score Minus Supervisor 2's Score		Supervisor 1 is More Positive Than Supervisor 2	
	(1)	(2)	(3)	(4)
Supervisor 1 Evaluating	0.311	-0.095	0.075	0.024
	(0.082)	(0.124)	(0.028)	(0.042)
Sample	Revealed	Masked	Revealed	Masked
DV Mean	-0.03	0.00	0.29	0.29
DV S.D.	1.31	1.22	0.45	0.45
Obs.	1,300	580	1,300	580
R-Squared	0.161	0.243	0.163	0.275
Controls	Y	Y	Y	Y

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Columns (1) and (3) use data from the revealed scheme only; Columns (2) and (4) use data from the masked scheme only. Controls are selected by the post-double-selection method using LASSO from a large pool of pre-determined covariates and implemented by Stata package "pdslasso.ado.". The p-value for a chi-2 test of coefficient equality between Column (1) and Column (2) is 0.00. The p-value for a chi-2 test of coefficient equality between Column (3) and Column (4) is 0.25. Standard errors clustered at the work unit level are reported below the coefficients.

Table A8. Revealing Supervisor Identity Leads to Evaluation Asymmetry

	Supervisor 1's Score Minus Supervisor 2's Score		Supervisor 1 is More Positive Than Supervisor 2	
	(1)	(2)	(3)	(4)
Supervisor 1 Evaluating	0.288	-0.110	0.071	0.019
	(0.087)	(0.124)	(0.029)	(0.043)
Sample	Revealed	Masked	Revealed	Masked
DV Mean	-0.03	0.00	0.29	0.29
DV S.D.	1.31	1.22	0.45	0.45
Obs.	1,239	559	1,239	559
R-Squared	0.166	0.269	0.166	0.301
Controls	Y	Y	Y	Y

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Columns (1) and (3) use data from the revealed scheme only; Columns (2) and (4) use data from the masked scheme only. Controls include CGCS's age, gender, college major, college type, high school track (STEM or not), party member status, parental education, work place (in village or not), risk attitude, and birth place (local or not). The p-value for a chi-2 test of coefficient equality between Column (1) and Column (2) is 0.00. The p-value for a chi-2 test of coefficient equality between Column (3) and Column (4) is 0.24. Standard errors clustered at the work unit level are reported below the coefficients.

Table A9. Revealing Supervisor Identity Leads to Evaluation Asymmetry: Lee Bounds

	Supervisor 1's Score Minus Supervisor 2's Score		Supervisor 1 is More Positive Than Supervisor 2	
	(1)	(2)	(3)	(4)
Supervisor 1 Evaluating	0.265	-0.204	0.063	-0.043
(Lower Bounds)	(0.121)	(0.150)	(0.029)	(0.044)
Supervisor 1 Evaluating	0.244	0.133	0.066	0.048
(Upper Bounds)	(0.098)	(0.141)	(0.029)	(0.040)
Sample	Revealed	Masked	Revealed	Masked
DV Mean	-0.03	0.00	0.29	0.29
DV S.D.	1.31	1.22	0.45	0.45
Obs.	2,575	919	2,575	919

Notes: This table reports treatment effect bounds for samples with non-random sample selection/attrition as proposed by Lee (2009). Each column represents a set of separate bound estimates. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Province and year dummies are controlled to tighten the bounds. In Columns (1) and (3), the sample is for the revealed scheme only; in Columns (2) and (4), the sample is for the masked scheme only. The empirical p-value for Fisher's permutation test of coefficient equality of lower bounds between Column (1) and Column (2) is 0.00, and the corresponding empirical p-value of upper bounds is 0.32. The empirical p-value for Fisher's permutation test of coefficient equality of lower bounds between Column (3) and Column (4) is 0.01, and the corresponding empirical p-value of upper bounds is 0.35. Bootstrapped standard errors are reported below the coefficients.

Table A10. Revealing Supervisor Identity Leads to Evaluation Asymmetry

	Supervisor 1's Score Minus Supervisor 2's Score	Supervisor 1 is More Positive Than Supervisor 2
	(1)	(2)
Supervisor 1 Evaluating	0.286	0.066
	(0.079)	(0.027)
Masking	0.249	0.032
	(0.099)	(0.035)
Supervisor 1 Evaluating * Masking	-0.381	-0.055
	(0.133)	(0.046)
Obs.	1,940	1,940
R-Squared	0.132	0.145

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Columns (1) and (3) use data from the revealed scheme only; Columns (2) and (4) use data from the masked scheme only. Standard errors clustered at the work unit level are reported below the coefficients.

Table A11. Correlations between CGCS Characteristics and Performance

	Performance (1-7)	
	by Colleague	Supervisor
	(1)	(2)
Age	0.074	0.080
	(0.010)	(0.018)
Female	-0.055	-0.104
	(0.040)	(0.054)
Social Science Major	-0.018	0.038
	(0.036)	(0.051)
4-Year College or Above	0.222	0.248
	(0.041)	(0.056)
STEM Students in High School	-0.028	0.006
	(0.037)	(0.049)
Party Member	0.256	0.282
	(0.042)	(0.058)
Parent Completing College	-0.037	0.038
	(0.040)	(0.056)
Work in Village	0.042	0.124
	(0.059)	(0.067)
CEE Score (100 points)	0.034	0.075
	(0.028)	(0.043)
Risk Averse	-0.033	-0.034
	(0.031)	(0.049)
Locally Born	0.051	0.105
	(0.043)	(0.058)

Notes: Each cell represents a separate regression between the outcome variable and the CGCS's characteristics. No control is included in any of the regressions. Column (1) reports the correlation between CGCSs performances evaluated by their colleagues and the CGCSs' personal characteristics separately for each variable. Column (2) reports the correlation between CGCSs' performances evaluated by their supervisors and the CGCSs' personal characteristics separately for each variable. Standard errors clustered at the work unit level are reported in the parentheses.

Table A12. Test for Supervisor Attrition

	Evaluating Supervisor Attrited	Non-Evaluating Supervisor Attrited	Both Attrited
	(1)	(2)	(3)
Masking	0.003	-0.012	-0.005
	(0.016)	(0.017)	(0.020)
Obs.	2,840	2,840	2,840
R-Squared	0.110	0.132	0.154

Notes: This table tests if masking the identity of the evaluator affects the attrition of supervisors. Each column represents a separate OLS regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Standard errors clustered at county level are reported below the coefficients.

Table A13. Impacts of Masking the Evaluator's Identity on Performances: LASSO

	(1)	(2)	(3)	(4)
Panel A. Performances Evaluated by Colleagues				
	Performance (1-7)	Top 10%	Hardworking	Qualify for Tenure
Masking	0.179	0.065	0.020	0.031
	(0.030)	(0.012)	(0.011)	(0.010)
DV Mean	5.23	0.71	0.43	0.87
DV S.D.	0.92	0.33	0.43	0.26
Obs.	2,835	2,835	2,835	2,835
Panel B. Performances Evaluated by Supervisors				
	Mean Assessment (1-7)	Evaluator Assessment	Non-Evaluator Assessment	Assessment Deviation
Masking	0.138	0.047	0.215	-0.100
	(0.046)	(0.055)	(0.059)	(0.050)
DV Mean	5.14	5.19	5.11	0.90
DV S.D.	0.91	1.12	1.10	0.93
Obs.	1,937	1,937	1,940	1,940
Panel C. Performance Pay				
	Wage	ln(Wage)	Wage: Medical Support	ln(Wage: Medical Support)
Masking	48.81	0.02	115.54	0.05
	(22.41)	(0.01)	(61.94)	(0.03)
DV Mean	2103.73	7.61	1851.59	7.51
DV S.D.	644.66	0.26	349.31	0.16
Obs.	2,750	2,750	193	193
Controls	Y	Y	Y	Y

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Controls are selected by the post-double-selection methodology using LASSO from a large pool of pre-determined covariates and implemented by Stata package "pdslasso.ado." Standard errors clustered at the work unit level are reported below the coefficients.

Table A14. Impacts of Masking the Evaluator's Identity on Performances: Controls

	(1)	(2)	(3)	(4)
Panel A. Performances Evaluated by Colleagues				
	Performance (1-7)	Top 10%	Hardworking	Qualify for Tenure
Masking	0.214	0.076	0.030	0.035
	(0.036)	(0.013)	(0.012)	(0.011)
DV Mean	5.23	0.71	0.43	0.87
DV S.D.	0.92	0.33	0.43	0.26
Obs.	2,729	2,729	2,729	2,729
Panel B. Performances Evaluated by Supervisors				
	Mean Assessment (1-7)	Evaluator Assessment	Non-Evaluator Assessment	Assessment Deviation
Masking	0.144	0.055	0.219	-0.105
	(0.047)	(0.057)	(0.060)	(0.051)
DV Mean	5.14	5.19	5.11	0.90
DV S.D.	0.91	1.12	1.10	0.93
Obs.	1,856	1,856	1,856	1,856
Panel C. Performance Pay				
	Wage	ln(Wage)	Wage: Medical Support	ln(Wage: Medical Support)
Masking	53.44	0.02	139.65	0.06
	(23.07)	(0.01)	(65.36)	(0.03)
DV Mean	2103.73	7.61	1851.59	7.51
DV S.D.	644.66	0.26	349.31	0.16
Obs.	2,650	2,650	176	176
Controls	Y	Y	Y	Y

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Controls include CGCS's age, gender, college major, college type, high school track (STEM or not), party member status, parental education, work place (in village or not), risk attitude, and birth place (local or not). Standard errors clustered at the work unit level are reported below the coefficients.

Table A15. Impacts of Masking the Evaluator's Identity on Performances: Lee Bounds

	(1)	(2)	(3)	(4)
Panel A. Performances Evaluated by Colleagues				
	Performance (1-7)	Top 10%	Hardworking	Qualify for Tenure
Masking (Lower)	0.180	0.074	0.015	0.025
	(0.044)	(0.012)	(0.016)	(0.009)
Masking (Upper)	0.238	0.090	0.036	0.039
	(0.052)	(0.018)	(0.013)	(0.016)
Obs.	3,785	3,785	3,785	3,785
Panel B. Performances Evaluated by Supervisors				
	Mean Assessment (1-7)	Evaluator Assessment	Non-Evaluator Assessment	Assessment Deviation
Masking (Lower)	0.102	0.013	0.178	-0.131
	(0.054)	(0.062)	(0.072)	(0.066)
Masking (Upper)	0.150	0.057	0.227	-0.089
	(0.053)	(0.064)	(0.056)	(0.055)
Obs.	3,785	3,785	3,785	3,785
Panel C. Performance Pay				
	Wage	ln(Wage)	Wage: Medical Support	ln(Wage: Medical Support)
Masking (Lower)	4.76	0.003	108.63	0.043
	(99.50)	(0.016)	(70.63)	(0.028)
Masking (Upper)	52.90	0.025	114.03	0.046
	(30.41)	(0.012)	(71.01)	(0.027)
Obs.	3,785	3,785	306	306

Notes: This table reports treatment effect bounds for samples with non-random sample selection/attrition as proposed by Lee (2009). Each column represents a set of separate bound estimates. Province and year dummies are controlled to tighten the bounds except for nurses' wages. For nurses' wages, as the sample size is small, we do not control any variables to tighten the bounds. Bootstrapped standard errors are reported below the coefficients.

Table A16. Performance Evaluation and Intention to Apply for the Tenure

	Intended to Apply for Tenure			
	(1)	(2)	(3)	(4)
Evaluating Sup's Score	-0.00	-0.00	-0.00	
	(0.01)	(0.01)	(0.01)	
Non-Evaluating Sup's Score	-0.00	-0.00	0.00	
	(0.01)	(0.01)	(0.02)	
Masking				0.00
				(0.01)
DV Mean	0.91	0.91	0.91	0.91
DV S.D.	0.28	0.28	0.28	0.28
Obs.	1,940	1,300	580	1,940
Sample	All	Revealed	Masked	All

Notes: Each column represents a separate regression. The outcome variable is whether the CGCS intended to apply for permanent civil service positions when she answered our end-line survey. We cannot reject the null hypothesis that the estimated coefficients are equal between the revealed scheme and the mask scheme in Columns (2) and (3). Standard errors clustered at the work unit level are reported below the coefficients.

Table A17. Test for Tenure Decisions by Different CGCS Characteristics

	Tenured										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Masking	0.016	-0.028	-0.209	0.104	0.057	0.033	0.025	0.011	0.051	0.043	0.011
	(0.022)	(0.035)	(0.167)	(0.300)	(0.031)	(0.023)	(0.021)	(0.024)	(0.028)	(0.026)	(0.035)
X	0.014	-0.036	-0.036	0.010	0.027	-0.052	0.018	0.022	0.006	0.002	0.083
	(0.027)	(0.026)	(0.020)	(0.007)	(0.023)	(0.025)	(0.032)	(0.023)	(0.023)	(0.022)	(0.026)
Mask*X	0.051	0.076	0.054	-0.003	-0.051	-0.023	0.011	0.047	-0.044	-0.035	0.023
	(0.047)	(0.043)	(0.035)	(0.012)	(0.039)	(0.043)	(0.055)	(0.040)	(0.038)	(0.038)	(0.042)
X Indicates:	Party Member	4-Y College	CEE Score	Age	Female	Parent College	Village Work	STEM	SOSC	Risk Averse	Born Locally
Obs.	2,839	2,839	1,841	2,731	2,839	2,839	2,839	2,839	2,839	2,839	2,839
R-Squared	0.232	0.232	0.250	0.227	0.232	0.234	0.231	0.233	0.231	0.231	0.236

Notes: This table tests if masking the identity of the evaluator affects the promotions of CGCSs to permanent positions. Each column represents a separate OLS regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Standard errors clustered at the work unit level are reported below the coefficients.

Table A18. Evaluator Awareness and Assessment

	Supervisor 1's Score Minus Supervisor 2's Score			Supervisor 1 is More Positive Than Supervisor 2		
	(1)	(2)	(3)	(4)	(5)	(6)
Supervisor 1 Eva.	0.311	0.326	0.352	0.075	0.070	0.075
	(0.082)	(0.100)	(0.169)	(0.028)	(0.034)	(0.059)
Sample	Full Sample	Supervisor 1 Unaware of being the Evaluator	Supervisor 1 Aware of Being the Evaluator	Full Sample	Supervisor 1 Unaware of being the Evaluator	Supervisor 1 Aware of Being the Evaluator
Obs.	1,300	887	333	1,300	887	333
R-Squared	0.161	0.205	0.272	0.163	0.194	0.305

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. We cannot reject the null hypothesis that the estimated coefficients are equal between the "Supervisor 1 Unaware of being the Evaluator" group and "Supervisor 1 Aware of Being the Evaluator" group for all the outcome variables. Standard errors clustered at the work unit level are reported below the coefficients.

Table A19. Behavioral Changes of the Between Informed and Non-Informed Evaluating Supervisors

	Tasks Assigned Reported by Supervisors (Evaluator edge)	List the # of CGCS' Main Tasks (Evaluator edge)	# of Words in Describing CGCS's Job Tasks (Evaluator edge)	Familiar with Work (Evaluator edge)	Familiar with Life (Evaluator edge)
	(1)	(2)	(3)	(4)	(5)
Evaluator Informed	0.126	-0.004	-0.236	-0.049	-0.232
	(0.731)	(0.274)	(0.547)	(1.237)	(1.670)
DV Mean	-0.30	0.18	0.41	0.11	-0.26
DV S.D.	10.55	3.83	8.39	17.46	23.69
Obs.	1,288	1,300	1,300	1,300	1,300

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. The sample is for the revealed scheme only. Evaluator edge is defined as the difference in the outcome variable between the evaluator and non-evaluator. Standard errors clustered at the work unit level are reported below the coefficients.

Table A20. Information Quality between the Evaluating and non-Evaluating Supervisors

	Supervisor 1 Gets More Information from CGCS than Supervisor 2 Does		Supervisor 1 Gets More Information from Colleagues than Supervisor 2 Does		Supervisor 1 Gets More Information from Opposing Supervisor than Supervisor 2 Does	
	(1)	(2)	(3)	(4)	(5)	(6)
Supervisor 1 Evaluating	0.000	-0.019	-0.031	-0.019	0.022	0.050
	(0.019)	(0.028)	(0.017)	(0.026)	(0.020)	(0.031)
Sample	Revealed	Masked	Revealed	Masked	Revealed	Masked
DV Mean	0.18	0.17	0.15	0.14	0.24	0.22
DV S.D.	0.38	0.37	0.35	0.35	0.43	0.41
Obs.	1,910	869	1,910	869	1,910	869

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. The sample is for the revealed scheme only. We cannot reject the null hypothesis that the estimated coefficient is equal between the revealed scheme and the mask scheme for all the outcome variables. Standard errors clustered at the work unit level are reported below the coefficients.

Table A21. Hometown Favoritism among Colleagues

	Colleague Assessment Score		
	(1)	(2)	(3)
Same Home Town	0.063	0.072	0.045
(Colleague)	(0.029)	(0.034)	(0.051)
DV Mean	5.20	5.13	5.35
DV S.D.	1.22	1.23	1.19
Obs.	9,252	6,286	2,954
Sample	Full	Revealed	Masked

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Columns (1) uses the full sample of CGCSs, Columns (2) uses the sample of CGCSs in the revealed scheme, Columns (3) uses the sample of CGCSs in the masked scheme. We cannot reject the null hypothesis that the estimated coefficient is equal between the revealed scheme and the mask scheme in Columns (2) and (3). Standard errors clustered at the work unit level are reported below the coefficients.

Table A22. Masking Evaluator's Identity and Information Difference

	(1)	(2)	(3)	(4)
	Evaluator Information		Non-Evaluator Information	
Masking	0.014	0.013	0.000	-0.018
	(0.020)	(0.016)	(0.019)	(0.016)
Information from	CGCSs	Colleagues	CGCSs	Colleagues
Obs.	2,839	2,839	2,839	2,839

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Standard errors clustered at the work unit level are reported below the coefficients.

Table A23. Do Treatment Effects Depend on Whether the Evaluators are Informed or Not?

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A. Impacts of Masking Evaluator Identify on Colleague Assessment								
	Overall Score	Top 10%	Hardworking	Qualify for Tenure	Overall Score	Top 10%	Hardworking	Qualify for Tenure
Masking	0.233	0.081	0.021	0.043	0.216	0.077	0.029	0.032
	(0.051)	(0.019)	(0.017)	(0.015)	(0.038)	(0.014)	(0.013)	(0.011)
Obs.	1,434	1,434	1,434	1,434	2,281	2,281	2,281	2,281
Panel B. Impacts of Masking Evaluator Identify on Supervisor Assessment								
	Mean Evaluation Score	Evaluating Supervisor Score	Non-Evaluating Supervisor Score	Assessment Deviation	Mean Evaluation Score	Evaluating Supervisor Score	Non-Evaluating Supervisor Score	Assessment Deviation
Masking	0.153	0.010	0.289	-0.057	0.151	0.083	0.200	-0.103
	(0.062)	(0.077)	(0.078)	(0.071)	(0.051)	(0.061)	(0.064)	(0.053)
Obs.	998	998	998	998	1,524	1,524	1,524	1,524
Panel C. Performance Pay								
	Wage	ln(Wage)	Wage: Medical Support	ln(Wage: Medical Support)	Wage	ln(Wage)	Wage: Medical Support	ln(Wage: Medical Support)
Masking	54.454	0.019	55.413	0.019	45.442	0.020	153.774	0.066
	(29.040)	(0.011)	(97.529)	(0.040)	(23.159)	(0.008)	(65.915)	(0.029)
Obs.	1,395	1,395	89	89	2,210	2,210	143	143
Sample	(Masked Group + Revealed Group with Un-Informed Supervisors)				(Masked Group + Revealed Group with Informed Supervisors)			

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. We cannot reject the null hypothesis that the estimated coefficient is equal between the revealed scheme and the mask scheme for all the outcome variables. Standard errors clustered at the work unit level are reported below the coefficients.

Table A24. Discouragement Effect

	Colleague Assessment Score	
	(1)	(2)
Masking	0.220	0.187
	(0.033)	(0.038)
Obs.	9,256	6,010
R-Squared	0.130	0.134
Sample	Full	Masking vs. Being Evaluated by Preferred Leader

Notes: Each column represents a separate regression. County fixed effects, CGCS type fixed effects and cohort effects are included in all the regressions. Standard errors clustered at the work unit level are reported below the coefficients.

APPENDIX B

Sample notification letter (Revealed Scheme):

Dear [redacted]:

Greetings!

Per the request of the provincial human resources department, we, a research team based at Renmin University of China, will be conducting a "third-party evaluation" of CGCS performance in this fiscal year. The results of this third-party evaluation will be used by the provincial human resources department for decision making.

In June 2018, we will send a team of enumerators to your work unit ([redacted] department in [redacted] township), to collect information about your work performance in the past year. **Specifically, among your two supervisors, Mr. [redacted] and Mr. [redacted], we have randomly selected Mr. [redacted] to be the evaluator. We will collect his assessments of your work performance by the end of the evaluation cycle, and provide that information to the provincial human resources department.**

The performance information will be used only by the research team and the provincial human resources department. Under no circumstance will we provide your personal information to other irrelevant parties. If you have any questions, please contact us at:

Email: [redacted]

WeChat: [redacted]

Phone: [redacted]

Regards,

Renmin University of China, School of Public Administration and Policy

Sample notification letter (Masked Scheme):

Dear [redacted]:

Greetings!

Per the request of the provincial human resources department, we, a research team based at Renmin University of China, will be conducting a "third-party evaluation" of CGCS performance in this fiscal year. The results of this third-party evaluation will be used by the provincial human resources department for decision making.

In June 2018, we will send a team of enumerators to your work unit ([redacted] department in [redacted] township), to collect information about your work performance in the past year. **Specifically, among your two supervisors, Mr. [redacted] and Mr. [redacted], we will randomly select one of them to be the evaluator. We will collect this evaluator's assessments of your work performance by the end of the evaluation cycle, and provide that information to the provincial human resources department.**

The performance information will be used only by the research team and the provincial human resources department. Under no circumstance will we provide your personal information to other irrelevant parties. If you have any questions, please contact us at:

Email: [redacted]

WeChat: [redacted]

Phone: [redacted]

Regards,

Renmin University of China, School of Public Administration and Policy

APPENDIX C

Let $x = x_1 + x_2$ and $u = u_1 + u_2$ be the total productive and unproductive influence activity levels. The maximization problem under the two revealed and masked schemes can be written as:

Under the revealed scheme: $\text{Max}_{X,x,u}\ V^r = \alpha X + x + u - G(X) - g(x) - h(u)$

Under the masked scheme: $\text{Max}_{X,x,u}\ V^m = \alpha X + \frac{1}{2}x + \frac{1}{2}u - G(X) - g(x) - h(u)$

$$\text{s.t } X + x + u = T;\ X, x, u \in [0, T]$$

$$\text{with performance: } P = X + x$$

Note that it is a convex optimization problem. If there exists at least one strictly interior solution triplet X^r, x^r, and u^r for all activities in the revealed scheme, then by the Slater's condition, the strong duality of this optimization problem must hold, and those solutions must necessarily and sufficiently satisfy the KKT conditions, which gives $G'(X^r) + (1-\alpha) = g'(x^r) = h'(u^r)$.[42] Similarly, for the masked scheme, the KKT conditions yield $G'(X^m) + \left(\frac{1}{2} - \alpha\right) = g'(x^m) = h'(u^m)$ for strictly interior solutions.[43] Comparing the CGCS's maximization problem in the two schemes, we can derive the main testable hypotheses that will guide the empirical investigations.

Proposition 1: *Under the revealed scheme, the agent engages in evaluator-specific influence activities (x_j, u_j), and the evaluating supervisor gives a higher assessment (Y_j) than the non-evaluating supervisor.*

The evaluation of supervisor 1 is $E_1^r = \alpha X^r + x^r + u^r$, while the evaluation of supervisor 2 is $E_2^r = \alpha X^r$. Clearly, with $X^r < T$, we have $E_1^r > E_2^r$.

Proposition 2: *Compared to the revealed scheme, the masked scheme increases common productive efforts (X), and improves work performance (P).*

Suppose $x^m \geq x^r$, then we have $h'(u^m) = g'(x^m) \geq g'(x^r) = h'(u^r)$, so $u^m \geq u^r$. This gives $X^m = T - x^m - u^m \leq T - x^r - u^r = X^r$, so $G'(X^m) \leq G'(X^r)$. We then have $g'(x^m) = G'(X^m) + \left(\frac{1}{2} - \alpha\right) < G'(X^r) + (1-\alpha) = g'(x^r)$ so $x^m < x^r$. This contradicts

[42] To guarantee the existence of the strict interior solution triplet X^r, x^r, and u^r. We first need $\min\left(g'(T), h'(T)\right) > \max\left(g'(0), h'(0)\right)$ to ensure that $x^r$and u^r take interior values. Note that $g'()$ and $h'()$ are monotonic increasing, $g'(x^r) = h'(u^r)$ implies a one-to-one mapping between x and u. We also need the conditions $G'(\mathrm{T} - x^{down} - u^{down}) + (1-\alpha) > g'(x^{down}) = h'(u^{down})$, and $G'(0) + (1-\alpha) < g'(x^{up}) = h'(u^{up})$ to ensure that X^r takes the interior solution, where x^{up} and u^{up} is the solution that satisfy $x^{up} + u^{up} = T$ and $g'(x^{up}) = h'(u^{up})$, x^{down} and u^{down} is the solution that satisfy $g'(x^{down}) = h'(u^{down}) = \max\left(g'(0), h'(0)\right)$.

[43] To guarantee the existence of the strict interior solution triplet X^m, x^m, and u^m. We need $\min\left(g'(T), h'(T)\right) > \max\left(g'(0), h'(0)\right)$, $G'(\mathrm{T} - x^{down} - u^{down}) + \left(\frac{1}{2} - \alpha\right) > g'(x^{down}) = h'(u^{down})$, and $G'(0) + \left(\frac{1}{2} - \alpha\right) < g'(x^{up}) = h'(u^{up})$.

the initial assumption. We therefore have $x^m < x^r$. Since $x^m < x^r, u^m < u^r$ and performance $P^m = X^m + x^m = T - u^m > P^r = X^r + x^r = T - u^r$.

Proposition 3: *The non-evaluating supervisor gives higher a higher assessment (Y_j) in the masked scheme than in the revealed scheme, while the change in the evaluating supervisor's assessment is ambiguous.*

The masked scheme optimization problem solves for the aggregate level of influence activities (x^m, u^m), not the individual level $\left(x_j^m, u_j^m\right)$ intended to each of the supervisors. Hence any combination of individual levels of influence activities that add up to the optimum aggregate level could be obtained. However, because supervisors are randomly chosen to be either 1 or 2 , the expected values $E(x_1^m) = E(x_2^m)$ and $E(u_1^m) = E(u_2^m)$, and hence the expected value of the evaluations by the two supervisors are equal $E(E_1^m) = E(E_2^m)$.

Furthermore, if the agent has any risk-aversion, e.g., her utility function is $E(E^m) - \frac{1}{2} r\mathrm{Var}\,(E^m) - \mathrm{cost}$, she will optimally choose to equalize the evaluations from the two supervisors, $E_1^m = E_2^m$. With $X^m > X^r, E_j^m = \alpha X^m + \frac{1}{2}(x^m + u^m) > E_2^r = \alpha X^r$, the supervisors' assessment under the masked scheme is greater than the non-evaluator assessment under the revealed scheme. The comparison with the evaluator's assessment in the revealed scheme is however ambiguous. One can show that for $\alpha = 1, E_1^r = X^r + x^r + u^r = T = X^m + x^m + u^m > E_j^m = X^m + \frac{1}{2}(x^m + u^m)$. However, for sufficiently large value of α, there exist cases where $E_1^r < E_j^m$.

Taken together, if we investigate the assessments of the evaluator and non-evaluator respectively, our model suggests that, when switching from the revealed scheme to the masked scheme, the non-evaluating supervisor's assessment will strictly increase, while the change in the evaluating supervisor's assessment is ambiguous: depending on the values of α, T and the functional form of $G(), g()$, and $h(), E_1^m$ can be either larger or smaller than E_1^r.[44]

APPENDIX D

In this section, we demonstrate the robustness of our propositions under a more general model specification.

Assume a CGCS's work performance can be (at least partially) observed by her supervisors and coworkers but cannot be verified quantitatively. The organization therefore relies on a subjective

[44] A numerical example of $E^m > E^r$ is when $T = 3$, $\alpha = 3$, $G(X) = \frac{1}{2}X^2$, $g(x) = 0.3x^3$, $h(u) = 0.3u^3$, and $(X^m, x^m, u^m) \approx (2.55, 0.23, 0.23)$, $(X^r, x^r, u^r) \approx (2.15, 0.42\ 0.42)$, $E^m \approx 7.87, E^r \approx 7.31$.

performance evaluation scheme, where the agent's reward depends on the assessments given by her supervisors. To mimic our empirical setting, we assume that there are two supervisors, $j \in 1,2$. The CGCS allocates her efforts across three dimensions. First, she can work on the "common productive dimensions" of the job (X), which can be observed and appreciated by both supervisors. Second, she can work on "supervisor-specific productive tasks" (x_j), which are assigned or observed solely by supervisor j. Finally, she can exert non-productive efforts to personally flatter a supervisor (u_j). Following Milgrom and Roberts (1988), we categorize x_j as "productive influence activities" and u_j as "non-productive influence activities."

Under this setup, the assessment score of the supervisor j is given by:

$$E_j = F(\alpha X + x_j + u_j), j = 1,2$$

where $\alpha > 0$ measures the relative weight of the common productive activities over the supervisor specific influence activities $F()$ is a monotonic increasing function and concave function[45] that measures the evaluation of the supervisor based on common productive activities over the supervisor specific influence activities. The cost of working on these different activities are $G(X), g(x_1 + x_2)$, and $h(u_1 + u_2)$, respectively, all three functions increasing and strictly convex in their argument.

Each CGCS maximizes her utility subject to a time constraint:

$$\text{Max}_{X,x_j,u_j}\ V = F[\alpha X + \sum_j s_j(x_j + u_j)] - G(X) - g(x_1 + x_2) - h(u_1 + u_2)$$

$$\text{s.t. } X + \sum_j (x_j + u_j) = T;\ X, x_j, u_j \in [0, T]$$

where s_j is the probability of each supervisor j's assessment being used to determine the CGCS's reward in the performance evaluation scheme $(\sum_j s_j = 1)$. T is the total time budget for an individual.

From the point of view of the institution, all productive activities are assumed to equally contribute to the overall performance of the CGCS:

$$P = X + x_1 + x_2$$

When we inform the CGCS about the identity of the evaluator (revealed scheme), the CGCS knows exactly whose opinion matters for her career development: $s_1 = 1, s_2 = 0$ or $s_1 = 0, s_2 = 1$. The optimizing CGCS will spend no effort on the influence activities toward the non-evaluating supervisor. Without loss of generality, let supervisor 2 be the non-evaluator, so that $x_2 = u_2 = 0$.

[45] The concavity assumption of $F()$ ensures the CGCS to equalize its supervisor-specific productive tasks x_j and non-productive influence activities u_j among two supervisors under the mask scheme.

When we do not inform the CGCS about the identity of the evaluator until the end of the evaluation cycle (masked scheme), the CGCS perceives each supervisor as equally likely to determine her career development: $p_1 = p_2 = 1/2$. Let $x = x_1 + x_2$ and $u = u_1 + u_2$ be the total productive and unproductive influence activity levels. As $F()$ is a monotonic increasing and concave function, by the Jensen's inequality, the agent will equalize its aggregate influence activities (x^m, u^m) among two supervisors to maximize the expected evaluation. We only need to solve for the aggregate level of influence activities (x^m, u^m), and the individual level activities is given by $\left(x_j^m = \frac{1}{2}x^m, u_j^m = \frac{1}{2}u^m\right)$.

The maximization problem under the two revealed and masked schemes can be written as:

Under the revealed scheme: $\text{Max}_{X,x,u}\ V^r = F(\alpha X + x + u) - G(X) - g(x) - h(u)$

Under the masked scheme: $\text{Max}_{X,x,u}\ V^m = F(\alpha X + \frac{1}{2}x + \frac{1}{2}u) - G(X) - g(x) - h(u)$

$$\text{s.t } X + x + u = T;\ X, x, u \in [0, T]$$

Note that this is a convex optimization problem. If there exists at least one strictly interior solution triplet X^r, x^r, and u^r for all activities in the revealed scheme, then by the Slater's condition, the strong duality of this optimization problem must hold, and those solutions must necessarily and sufficiently satisfy the KKT conditions, which gives $G'(X^r) + (1-\alpha)\mathrm{F}'(\alpha X^r + x^r + u^r) = g'(x^r) = h'(u^r)$.[46] Similarly, for the masked scheme, the KKT conditions yield $G'(X^m) + (\frac{1}{2} - \alpha)\mathrm{F}'(\alpha X^m + \frac{1}{2}x^m + \frac{1}{2}u^m) = g'(x^m) = h'(u^m)$ for strictly interior solutions.[47] Assuming that the supervisors' valuation of common productive activities is not too small ($\alpha \geq \frac{1}{2}$), we can replicate all the propositions of the baseline model under this more general setup that gets rid of the linearity assumptions.

Proposition 1: *Under the revealed scheme, the agent engages in evaluator-specific influence activities (x_j, u_j), and the evaluating supervisor gives a higher assessment (Y_j) than the non-evaluating supervisor.*

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[46] To guarantee the existence of the strict interior solution triplet X^r, x^r, and u^r. We first need $\min\big(g'(T), h'(T)\big) > \max\,(g'(0), h'(0))$ to ensure that $x^r$and u^r take interior values. Note that $g'()$ and $h'()$ are monotonic increasing, $g'(x^r) = h'(u^r)$ implies a one-to-one mapping between x and u. We also need the conditions $G'(\mathrm{T} - x^{down} - u^{down}) + (1-\alpha)\mathrm{F}'(\alpha T + (1-\alpha)x^{down} + (1-\alpha)u^{down}) > g'(x^{down}) = h'(u^{down})$, and $G'(0) + (1-\alpha)\mathrm{F}'(T) < g'(x^{up}) = h'(u^{up})$ to ensure that X^r takes the interior solution, where x^{up} and u^{up} is the solution that satisfy $x^{up} + u^{up} = T$ and $g'(x^{up}) = h'(u^{up})$, x^{down} and u^{down} is the solution that satisfy $g'(x^{down}) = h'(u^{down}) = \max\,(g'(0), h'(0))$.

[47] To guarantee the existence of the strict interior solution triplet X^m, x^m, and u^m. We need $\min\big(g'(T), h'(T)\big) > \max\big(g'(0), h'(0)\big)$, $G'(\mathrm{T} - x^{down} - u^{down}) + (\frac{1}{2} - \alpha)\mathrm{F}'(\alpha\mathrm{T} + (\frac{1}{2} - \alpha)x^{down} + (\frac{1}{2} - \alpha)u^{down}) > g'(x^{down}) = h'(u^{down}), G'(0) + (\frac{1}{2} - \alpha)\mathrm{F}'(\frac{\mathrm{T}}{2}) < g'(x^{up}) = h'(u^{up})$.

The evaluation of supervisor 1 is $E_1^r = F(\alpha X^r + x^r + u^r)$, while the evaluation of supervisor 2 is $E_2^r = F(\alpha X^r)$. Clearly, we have $E_1^r > E_2^r$.

Proposition 2: *Compared to the revealed scheme, the masked scheme increases common productive efforts (X), and improves work performance (P).*

Suppose $x^m \geq x^r$, then we have $h'(u^m) = g'(x^m) \geq g'(x^r) = h'(u^r)$, so $u^m \geq u^r$. This gives $X^m = T - x^m - u^m \leq T - x^r - u^r = X^r$, so $G'(X^m) \leq G'(X^r)$. By the FOC, we then have

$$(\alpha - 1)F'(\alpha X^r + x^r + u^r) - \left(\alpha - \frac{1}{2}\right)\mathrm{F}'\left(\alpha X^m + \frac{1}{2}x^m + \frac{1}{2}u^m\right) = G'(X^r) - g'(x^r) - (G'(X^m) - g'(x^m)) \geq 0.$$

When $\alpha > 1$, $\alpha X^r + x^r + u^r = T + (\alpha - 1)X^r \geq T + (\alpha - 1)X^m = \frac{\mathrm{T}}{2} + \left(\alpha - \frac{1}{2}\right)X^m + \frac{\mathrm{T} - X^m}{2} > \frac{\mathrm{T}}{2} + \left(\alpha - \frac{1}{2}\right)X^m$. As $F()$ is a concave function, we then have $F'(\alpha X^r + x^r + u^r) < F'\left(\alpha X^m + \frac{1}{2}x^m + \frac{1}{2}u^m\right)$. Thus $(\alpha - 1)F'(\alpha X^r + x^r + u^r) - \left(\alpha - \frac{1}{2}\right)\mathrm{F}'\left(\alpha X^m + \frac{1}{2}x^m + \frac{1}{2}u^m\right) < 0$, which contradicts the condition $G'(X^r) - g'(x^r) - (G'(X^m) - g'(x^m)) \geq 0$.

When $\frac{1}{2} \leq \alpha \leq 1$, $(\alpha - 1)F'(\alpha X^r + x^r + u^r) - \left(\alpha - \frac{1}{2}\right)F'\left(\alpha X^m + \frac{1}{2}x^m + \frac{1}{2}u^m\right)$ is always negative as the first term is negative except for $\alpha = 1$, and the second term is positive except for $\alpha = \frac{1}{2}$, which contradicts the condition $G'(X^r) - g'(x^r) - (G'(X^m) - g'(x^m)) \geq 0$.

Thus when $\alpha \geq \frac{1}{2}$, we can prove that $x^m < x^r, u^m < u^r$ and performance $P^m = X^m + x^m = T - u^m > P^r = X^r + x^r = T - u^r$.

Proposition 3: *The non-evaluating supervisor gives higher a higher assessment (Y_j) in the masked scheme than in the revealed scheme, while the change in the evaluating supervisor's assessment is ambiguous.*

Because the agent equalizes the aggregate level of influence activities (x^m, u^m) among the two supervisors, the evaluation given by the two supervisors are equal $E_1^m = E_2^m$. With $X^m > X^r, E_j^m = F(\alpha X^m + \frac{1}{2}(x^m + u^m)) > E_2^r = F(\alpha X^r)$, the supervisors' assessment under the masked scheme is greater than the non-evaluator assessment under the revealed scheme. The comparison with the evaluator's assessment in the revealed scheme is however ambiguous. One can show that for $\alpha = 1, E_1^r = F(X^r + x^r + u^r) = F(T) = F(X^m + x^m + u^m) > E_j^m = F(X^m + \frac{1}{2}(x^m + u^m))$. However, for sufficiently large value of α, there exist cases where $E_1^r < E_j^m$.

APPENDIX E

In this section, we investigate the driving force behind our main predictions. It turns out that, our key predictions on "increased common productive efforts" and "reduced influence activities" actually rely only on a very simple assumption: t*he cross-price elasticity of demand between common productive activities and influence activities need to be positive (i.e., these activities need to be sufficiently substitutable).*

To see this very clearly, we start with a generic model of time allocation, where we denote $v_1 = x_1 + u_1$; $v_2 = x_2 + u_2$; and when leader i is selected to evaluate, the utility of a CGCS is $U(X, v_i)$.

The general maximization problem of a CGCS is:

$$\max_{X,v_1,v_2} pU(X, v_1) + (1-p)U(X, v_2)$$

$$\text{s.t.} \quad X + v_1 + v_2 = T$$

where p is the chance of leader 1 being selected as evaluator.

When $p = 1$, the maximization problem is:

$$\max_{X,v_1,v_2} U(X, v_1)$$

$$\text{s.t.} \quad X + v_1 = T$$

When $p = \frac{1}{2}$, the maximization problem is:

$$\max_{X,v_1,v_2} \frac{1}{2}U(X, v_1) + \frac{1}{2}U(X, v_2)$$

$$\text{s.t.} \quad X + v_1 + v_2 = T$$

One of the first order conditions is:

$$\frac{1}{2}U_v(X, v_1) = \frac{1}{2}U_v(X, v_2) \Rightarrow v_1 = v_2$$

So the maximization problem for $p = \frac{1}{2}$ can be written as:

$$\max_{X,v_1,v_2} U(X, v_1)$$

$$\text{s.t.} \quad X + 2 \cdot v_1 = T$$

Comparing the two maximization problems, this turns out to be a classical question of how the demand of good A responds to a change in the price of good B. In this Hicks' decomposition

problem, as long as the cross-price elasticity of demand between X and v is positive, the masked scheme will lead to higher X and lower v. Intuitively, this is just saying that we need there to be a sufficient level of substitution between common productive activities and influence activities, which we think is a reasonable assumption in this setting, since these are the two different channels through which a CGCS can impress his evaluator and improve his evaluation outcomes. For example, if a CGCS has mediocre performance in his common productive tasks, he might make up for it and still get promoted if he can manage to butter up his evaluator really well.

One can easily generalize this model to include both types of influence activities: $U = U(X, x_i, u_i)$. Specifically, when $p = 1$, the maximization problem is:

$$\max_{X,x_1,u_1} U(X, x_1, u_1)$$

$$\text{s.t.} \quad X + x_1 + u_1 = T$$

When $\theta = \frac{1}{2}$, the maximization problem is:[48]

$$\max_{X,x_1,u_1} U(X, x_1, u_1)$$

$$\text{s.t.} \quad X + 2 \cdot x_1 + 2 \cdot u_1 = T$$

Comparing these two maximization problems, we can see that, as long as the cross-price elasticities of demand between X and x, and X and u are both positive, the masked scheme will lead to higher X and lower x and u. And if the organization values $P = X$ or $P = X + x$, we know that P will also improve under the masked scheme.

From this generic model, we can see that our key predictions only rely on a very simple assumption regarding the substitutability between the different types of activities.

[48] When $U(X, x_i, u_i)$ is strictly concave, we have $x_1 = x_2$; $u_1 = u_2$. Therefore, we have: $\frac{1}{2}U(X, x_1, u_1) + \frac{1}{2}U(X, x_2, u_2) = U(X, x_1, u_1)$