Influence Activities and Bureaucratic Performance

Evidence from a Large-Scale Field Experiment in China

Alain de Janvry [a] Guojun He [b] Elisabeth Sadoulet [a]

Shaoda Wang [c] Qiong Zhang [d]

[a]UC Berkeley

[b]HKUST

[c]U Chicago

[d]Renmin U

September 4, 2019

Motivation

- Subjective leader evaluation is widely used to incentivize employees
  - Particularly prevalent in public sectors, due to the inherent problems of measurability and multiplicity of civil service job tasks
- However, subjective evaluation might cause **influence activities**: the agent tries to please the evaluator instead of being productive
  - Long-standing theoretical literature (Milgrom and Roberts, 1988; Milgrom, 1988; Meyer et al., 1992; Schaefer, 1998; Alonso et al., 2008; Powell, 2015)
- There has been no rigorous empirical evidence on the existence and implications of influence activities (Oyer and Schaefer, 2011; Lazear and Oyer, 2012)

Empirical Challenges

Empirically studying influence activities is challenging:

- **Difficult to observe**: agents have incentives to hide behaviors such as buttering up supervisors, providing personal favors, etc.
- **Difficult to verify**: even if these behaviors are observed, it is difficult to conclude that they are driven by intentions to improve evaluation outcomes (instead of simply being friendly)
- **Difficult to understand the consequences**: without being able to exogenously vary influence activities across employees, we cannot quantify the causal impacts of such behaviors on productivity

This Paper

- Collaborate with two provincial governments to conduct a large-scale field experiment
- The experiment randomizes different subjective performance evaluation schemes across 3800 junior township civil servants
- Our results suggest:
  1. Influence activities are prevalent in the public sector
  2. A simple institutional design could effectively incentivize agents to reallocate efforts from influence activities to productive dimensions
  3. The reallocation of efforts leads to substantially better bureaucratic performance

▸ Contributions to the Literature

Roadmap

1. Background
2. Experiment
3. Empirical Results
4. Conclusion

College Graduate Civil Servants

- College Graduate Civil Servants (CGCSs) in the "3+1 Supports" Program

Educational Support

Medical Service Support

The "3+1" Support Program

Agricultural Support

Poverty Alleviation

▸ Details on CGCS Job Tasks

CGCS Evaluation

- CGCSs are hired on two-year contracts, could eventually become formal (tenured) civil servants if receiving good leader evaluations
  - Most CGCS applicants aim to eventually become formal civil servants
  - This program is popular because it provides a springboard for formal civil servant jobs ($< 5\%$ acceptance rate)
  - CGCSs are therefore highly motivated to get good evaluations

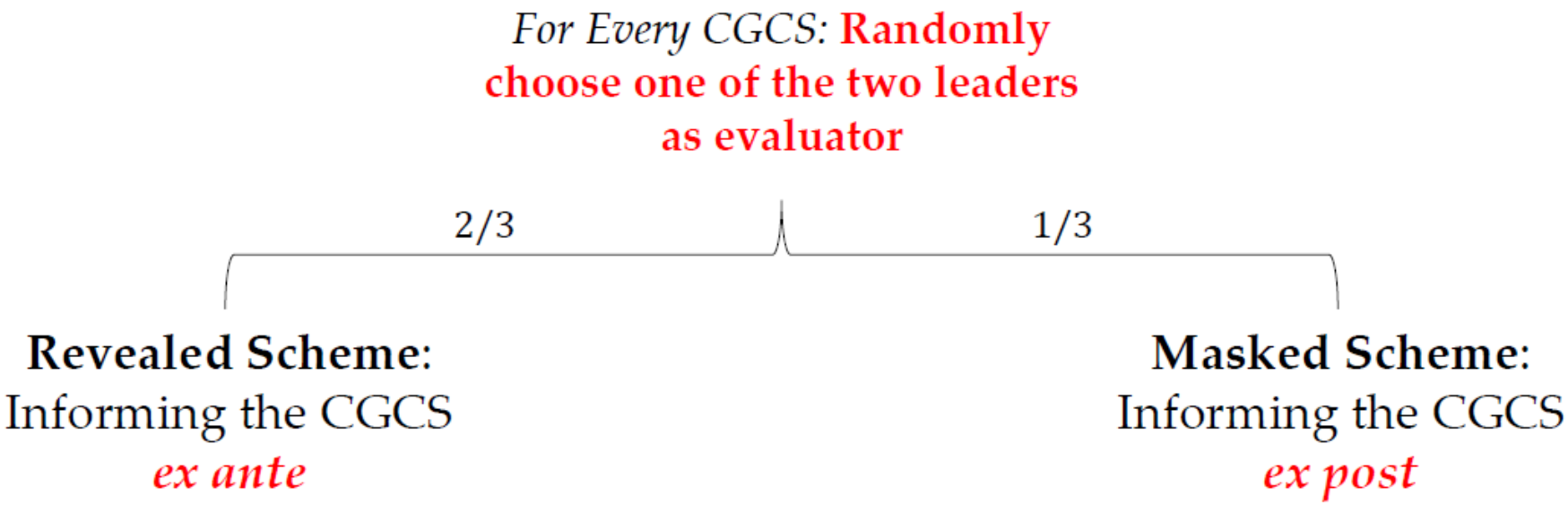
- China's duality governance system (e.g. Shirk, 1993) ▸ Details
  - "Government leader" vs. "Party leader"
  - Same rank, different duties, both are important
  - Division of labor often blur at the grassroots level

CGCS Evaluation

- In the status quo, a CGCS responds to both leaders, but is only evaluated by one of them
  - The CGCS program is run by the provincial Human Resources Department, who selects one of the two leaders as the evaluator
  - The Human Resources Department informs the CGCS about the identity of the evaluator *ex ante*
  - Could be prone to influence activities

- We run a large-scale field experiment exploring ways to alleviate influence activities with improved evaluation schemes
  - In collaboration with two provincial governments
  - 3785 CGCSs were employed by these two provinces as of 2017.08, which constitutes our sample

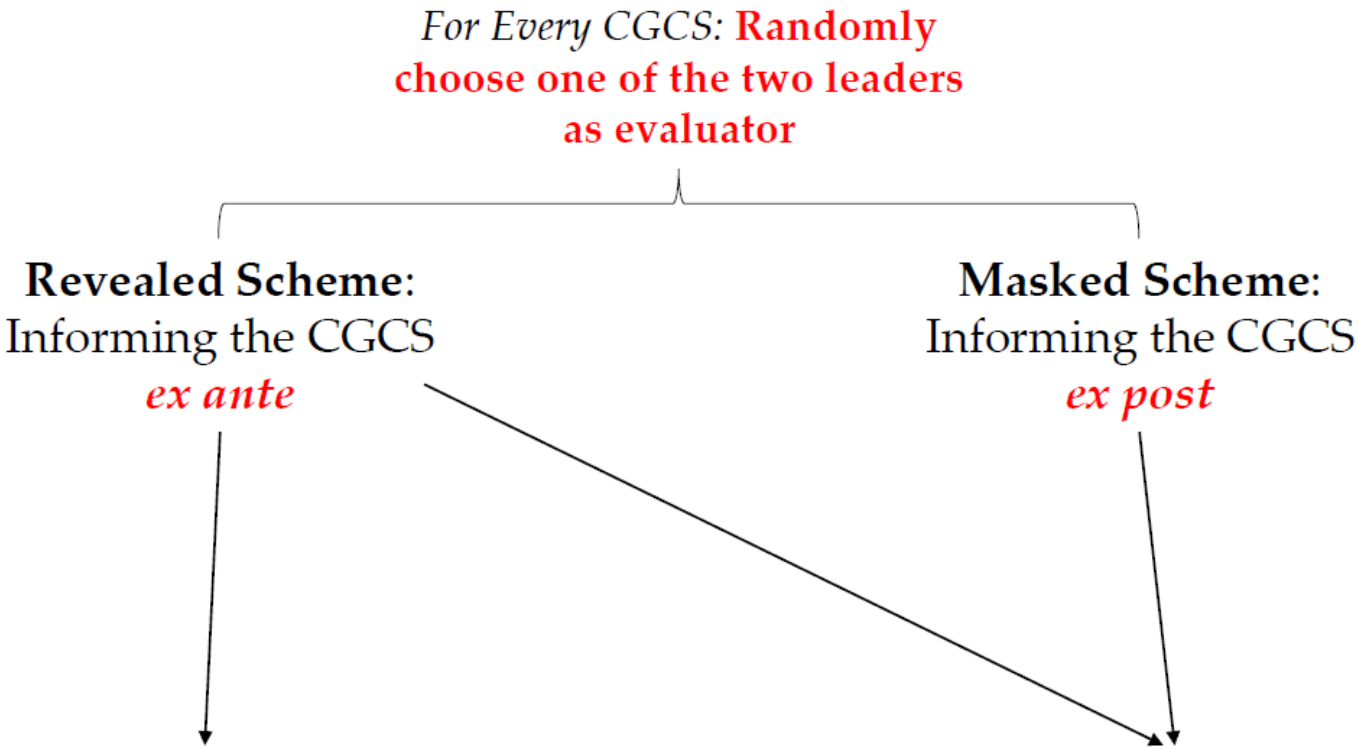
Experimental Design



- Assigned 2/3 of the sample in revealed scheme, 1/3 in masked scheme
- In the revealed scheme, evaluator identity was only revealed to the CGCS, but not the leaders or other colleagues
- In the endline, we surveyed both leaders, the CGCS, and a random sample of colleagues, asking all of them to assess CGCS performance

▸ Conceptual Framework Rationalizing the Experiment

Experimental Design



Hyp1: **CGCS imposes evaluator-specific influence**, making the evaluating leader more positive than the non-evaluating leader

Hyp2: **colleagues observe evaluator-specific influence activities**, therefore expect evaluator to be more positive

Hyp3: masking evaluator identity makes **leader-specific influence less beneficial, incentivizing the CGCS to worker harder on the common productive dimensions,** improving performance

▸ Conceptual Framework Rationalizing the Experiment

Main Measures for CGCS Performance

- Colleague assessments of CGCS performance
  - On a scale of 1 to 7, framed in relative terms
  - Colleagues are very familiar with CGCS performance
  - CGCS has no incentives to influence colleagues
- Both leaders' assessments of CGCS performance
  - On a scale of 1 to 7, framed in relative terms
  - From both evaluating leader and non-evaluating leader
- Revealed preference measure
  - Whether the CGCS is recommended for tenure
- Objective benchmark
  - The actual salary received by the CGCS (linked to objective indicators)

Timeline

2017 Jun.-Jul.

Evaluation Year Begins

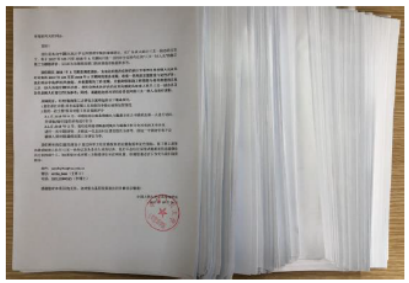
- Government training
- Position assignment

2017 Aug.-Sep.

Baseline Survey

- Collect detailed information on all CGCSs in two provinces
- Match survey data with administrative data

Randomization



2017 Sep.-Oct.

Intervention

- Individualized letters notifying evaluation schemes
- Official notifications by provincial governments
- Reminders about scheme details

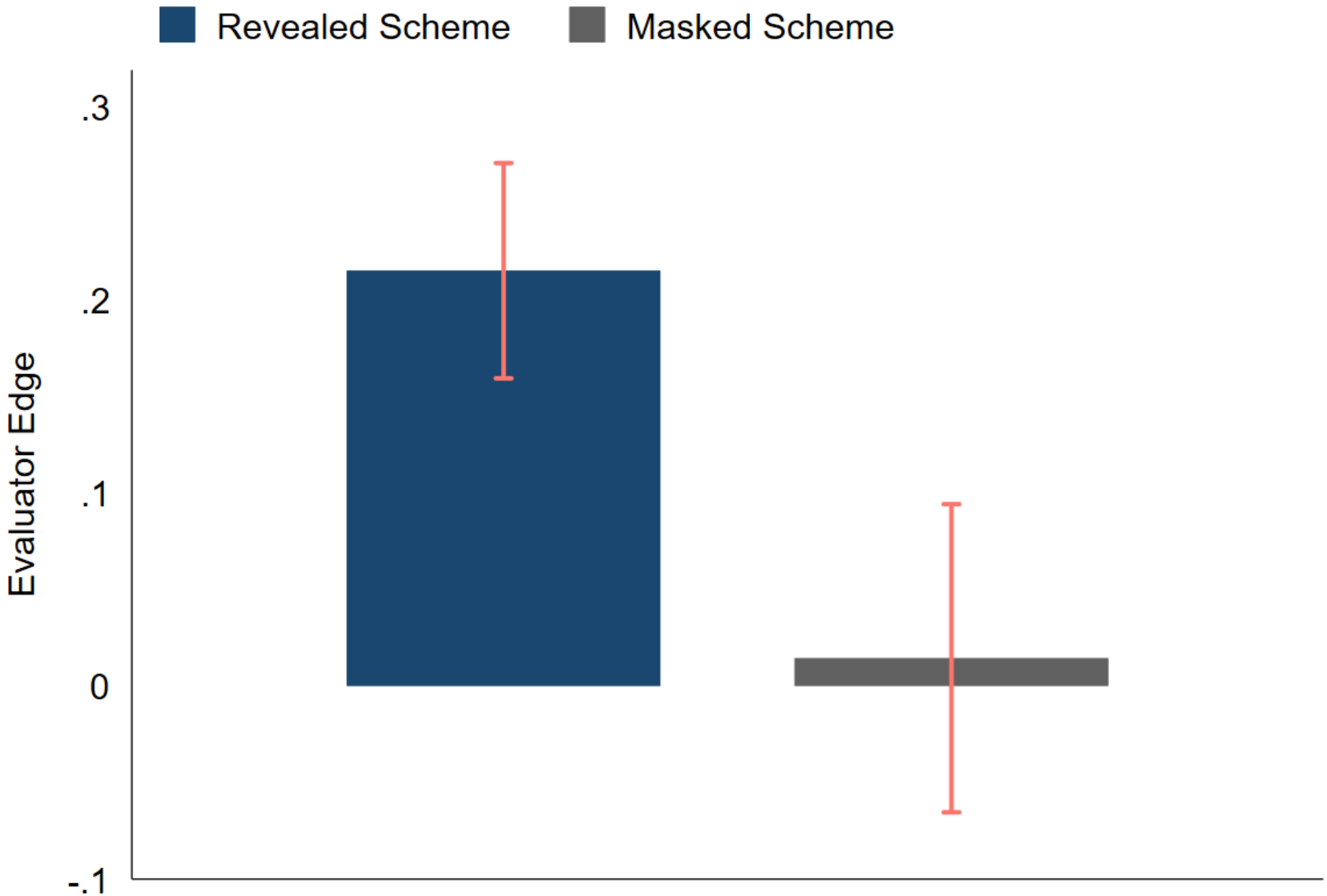
2018 Jun.-Jul.

Endline Survey

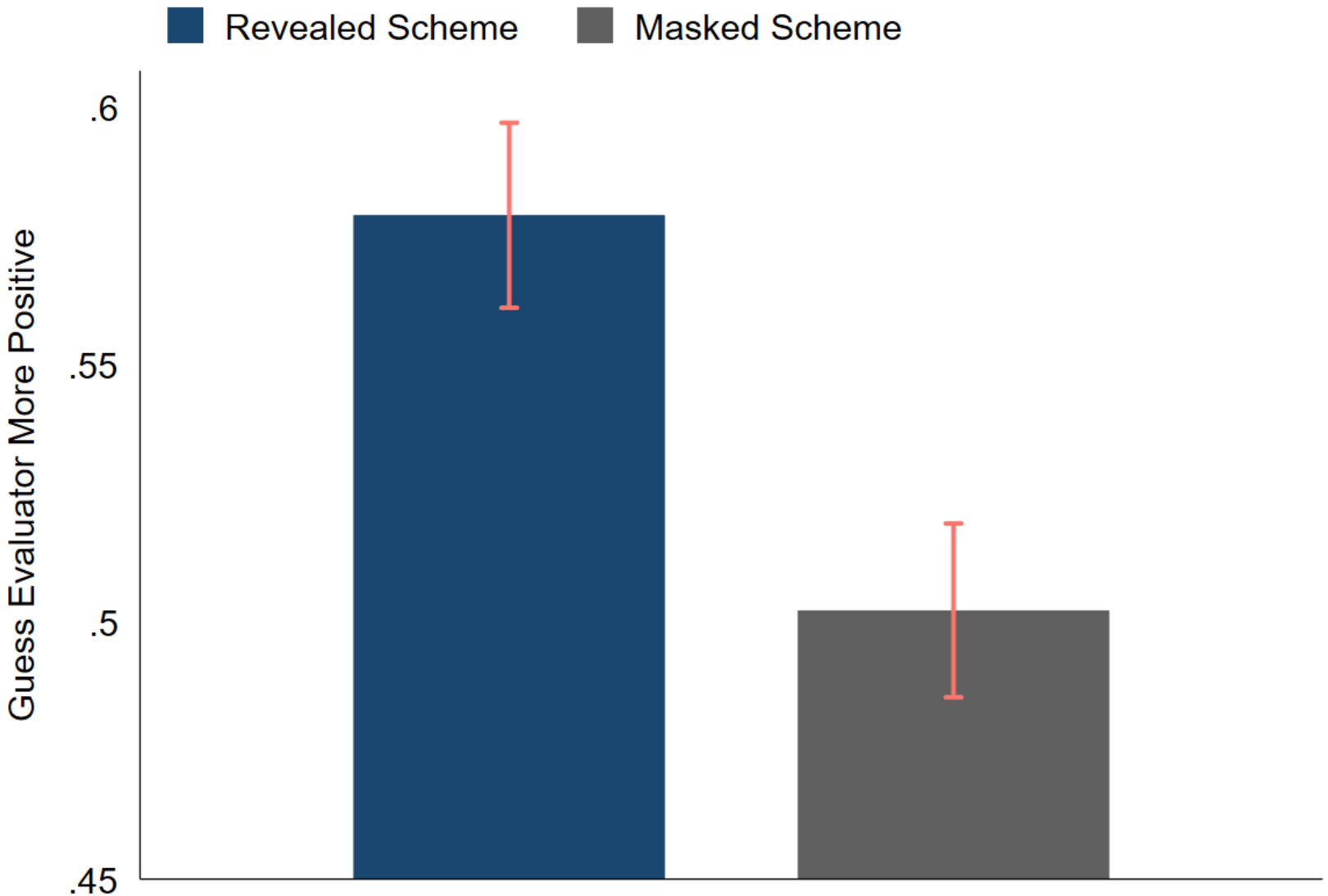
- Colleague assessments
- Leader assessments
- Self assessments

▸ Official Notification Letters ▸ Endline Survey Details ▸ Balance Tests ▸ Attrition Test

Asymmetry in Leader Assessments



Colleague Perceived Positiveness

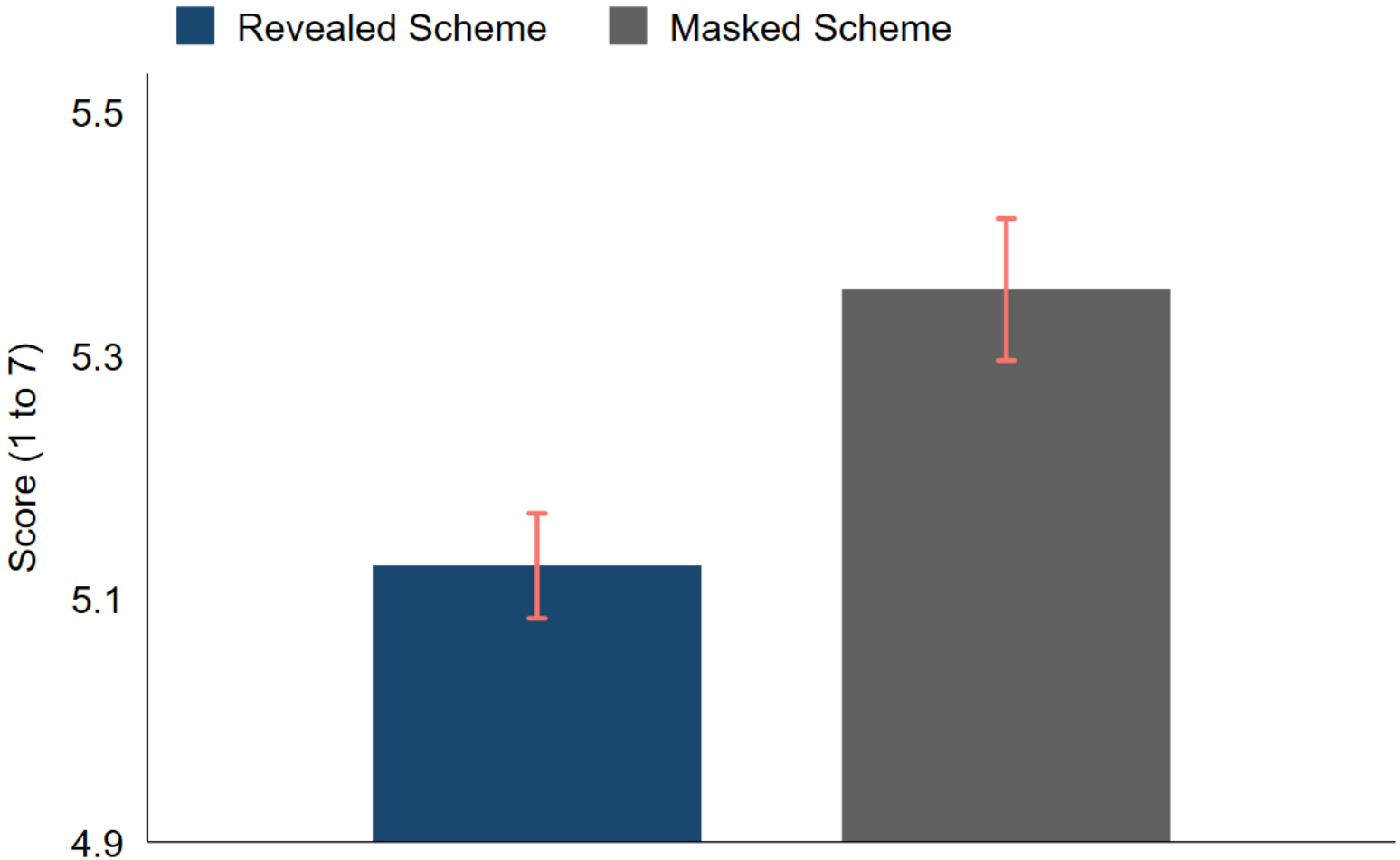


▸ More Evidence for Reduced Influence under Masked Scheme

Alternative Explanations

1. Evaluating leader might be aware of his role, which could lead to behavioral changes and causing the asymmetry ▸ Details
   - We never informed the leaders about this, but the evaluator might learn about this from the CGCS
2. Being the evaluating leader might lead to higher information quality ▸ Details
   - Colleagues, the CGCS, and the other leader might try to provide more information to the evaluator

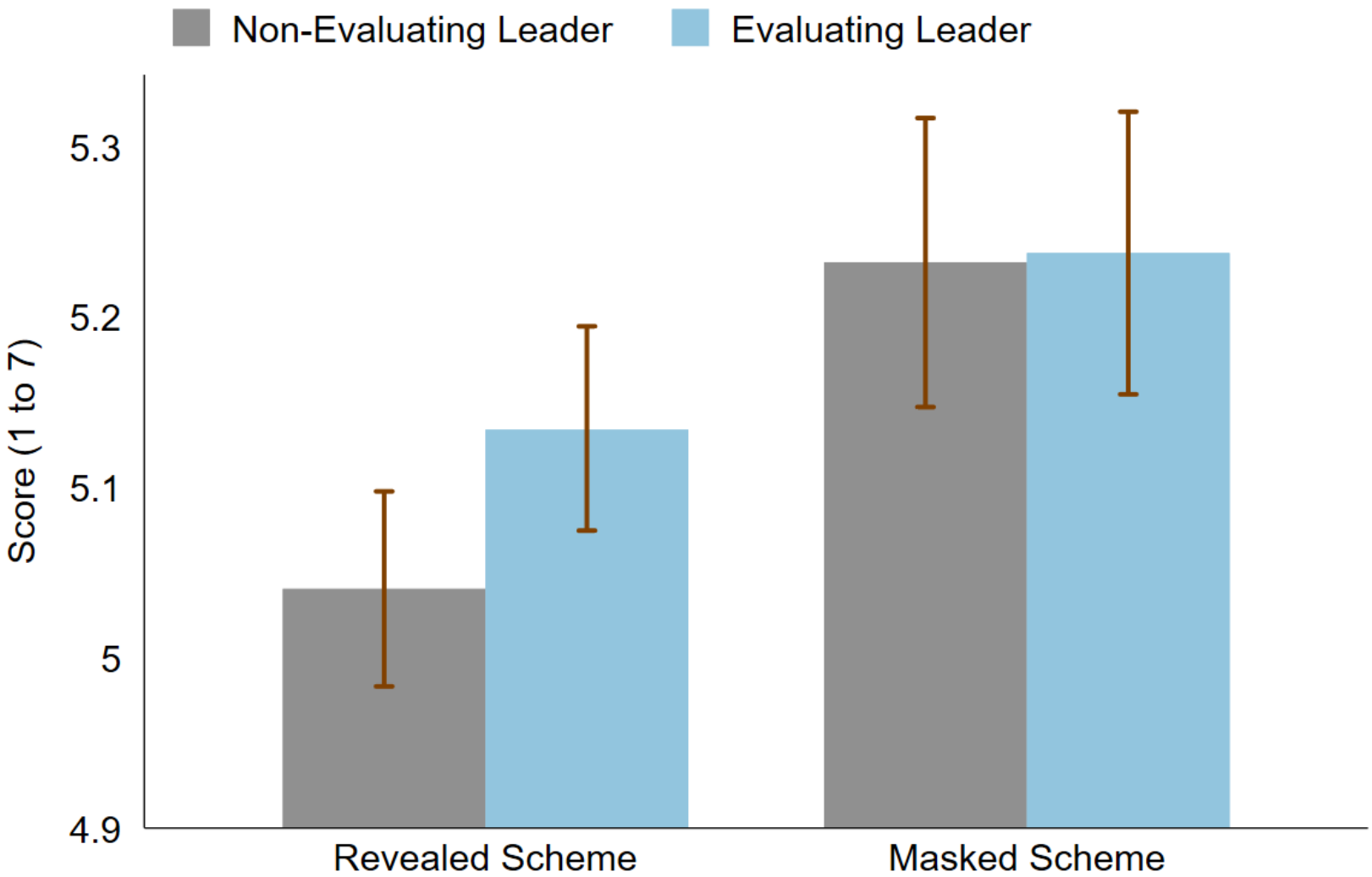
Colleague Assessments by Schemes



- Masking improves colleague assessment score by 0.2, larger than the assessment score gap between 4-year and 3-year college graduates (0.15)

▸ Interpreting Magnitude

Leader Assessments by Schemes



Rationalizing Leader Results

Panel A. CGCSs Work Harder

	Work Hard and Overtime		Self Evaluation (1-7)	
Masking	0.023**	0.023**	0.081*	0.080*
	(0.012)	(0.012)	(0.048)	(0.048)
Obs.	9,349	9,349	2,771	2,771
R-Squared	0.491	0.491	0.117	0.125
Controls	N	Y	N	Y
County FE	Y	Y	Y	Y
Type FE	Y	Y	Y	Y
Enrol Year FE	Y	Y	Y	Y

Rationalizing Leader Results

Panel B. CGCSs' Welfare Revealed by Reserved Wage

	Willingness to Accept Private Sector Job		Reserved Wage (log)	
Masking	0.028*	0.029*	-0.054*	-0.054*
	(0.016)	(0.016)	(0.029)	(0.029)
Obs.	2,737	2,737	2,738	2,738
R-Squared	0.233	0.234	0.235	0.235
R-Squared	0.491	0.491	0.117	0.125
Controls	N	Y	N	Y
County FE	Y	Y	Y	Y
Type FE	Y	Y	Y	Y
Enrol Year FE	Y	Y	Y	Y

Mechanisms: Risk Aversion

	Colleague Assessment (1-7)
Masking	0.140***
	(0.037)
Risk Aversion	-0.044
	(0.031)
Masking*Risk Aversion	0.105**
	(0.053)
Controls	Y
County FE	Y
Type FE	Y
Enroll Year FE	Y
Obs.	9,221
R-Squared	0.355

- More risk-averse CGCS respond more strongly to the introduction of uncertainty in evaluator identity (masking)

Mechanisms: Leader Preference Alignment

	Colleague Assessment (1-7)
Masking	0.173***
	(0.030)
Supervisors' Weights Similarity	-0.088
	(0.069)
Masking*Weights Similarity	0.212*
	(0.112)
Controls	Y
County FE	Y
Type FE	Y
Enroll Year FE	Y
Obs.	8,770
R-Squared	0.397

- When two leaders have more aligned preferences on the productive dimensions, "reallocating efforts toward common productive dimensions" becomes more beneficial, therefore masking becomes more effective

Mechanisms: Importance Asymmetry between Leaders

	Colleague Assessment (1-7)
Masking	0.208***
	(0.029)
Δ in Superiors' Work Assign. Freq.	0.003***
	(0.001)
Masking*Δ in Work Assign. Freq.	-0.002***
	(0.001)
Controls	Y
County FE	Y
Type FE	Y
Enroll Year FE	Y
Obs.	9,243
R-Squared	0.335

- When only one leader assigns most of the job tasks, then in the masked scheme, the CGCS is still essentially responding to only one leader. Therefore masking becomes less effective

Mechanisms: Information Asymmetry between Leaders

	Colleague Assessment (1-7)
Masking	0.526***
	(0.176)
Supervisors' Info. Gap	0.195*
	(0.101)
Masking*Supervisors' Info. Gap	-0.365*
	(0.189)
Controls	Y
County FE	Y
Type FE	Y
Enroll Year FE	Y
Obs.	8,788
R-Squared	0.361

- When only one leader is familiar with the CGCS's work situation, then in the masked scheme, the CGCS is still essentially responding to only one leader. Therefore masking becomes less effective

"Revealed Preference" and Objective Benchmarks

	Qualify for Tenure	log(Wage)	Wage	Wage (Medical Support)
	(1)	(2)	(3)	(4)
Masking	0.032***	0.020**	48.81**	115.54*
	(0.009)	(0.008)	(22.41)	(61.94)
County FE	Y	Y	Y	Y
Type FE	Y	Y	Y	Y
Enroll Year FE	Y	Y	Y	Y
Obs.	9,349	2,750	2,750	193
R-Square	0.099	0.665	0.64	0.74

- More likely to be recommended as "should qualify for tenure"
- Increased bonus mainly coming from nurses, because hospitals tend to have well-established bonus schemes
  - According to the bonus schemes used by the township clinics in our sample, the bonus increase corresponds to 5-6 more night shifts per month

Alternative Explanations

1. The CGCS spent more efforts influencing both leaders in the masked scheme
   - Cannot explain the improved assessments from colleagues
   - At odds with the increased bonuses for nurses
   - Inconsistent with heterogeneous effects w.r.t. leader preference alignment and leader information asymmetry
   - Additional evidence against this interpretation ▸ Details
2. The masked scheme gives leaders better information about CGCS performance ▸ Details

Influence Activities as a Source of Favoritism

- Favoritism is ubiquitous in workplaces (Prendergast and Topel, 1996; Macleod, 2003)
  - In Chinese politics, a strong proxy for "favoritism" is "same hometown" (*Tong Xiang*) (Shih et al., 2012; Fisman et al., 2018)
- Favoritism comes from two sources: Top Down (preference) vs. Bottom Up (influence activities)
  - Top Down: Leader prefers subordinates from same hometown
  - Bottom up: Subordinate can more easily influence a leader from same hometown
- Our experiment provides a unique opportunity to distinguish between these two channels
  - For CGCSs with a same-hometown leader and a different-hometown leader, "hometown evaluator" is randomly assigned
  - "Bottom up" channel randomly alleviated in the Masked Scheme

Influence Activities as a Source of Favoritism

	Evaluating Leader Score		
	Full Sample	Revealed Sample	Masked Sample
	(1)	(2)	(3)
Same Hometown Evaluator	0.155**	0.236**	-0.028
	(0.077)	(0.106)	(0.132)
County FE	Y	Y	Y
Type FE	Y	Y	Y
Enroll Year FE	Y	Y	Y
Obs.	1,383	895	415
R-Squared	0.255	0.305	0.324

- Strong hometown favoritism in the baseline. No hometown favoritism when we alleviate influence activities in the masked scheme
  - Favoritism mostly driven by influence activities, instead of preference

Conclusion

- This paper reports a large-scale field experiment, randomizing subjective performance evaluation schemes among Chinese bureaucrats
- Our results suggest:
  - Influence activities are prevalent in workplaces
  - Masking evaluator identity incentivizes efforts along productive dimensions, leading to improved work performance
- Direct implications for $>$ 50 million state employees in China. Also relevant for many other contexts with subjective evaluations:
  - Journal editors
  - Tenure letters
  - ...

Thank you!

Appendix

Contributions to the Literature

- First rigorous empirical evidence on influence activities (Milgrom and Roberts, 1988; Milgrom, 1988; Meyer et al., 1992; Schaefer, 1998)
  - Subjective evaluations more generally (Gibbons and Murphy, 1992; Baker et al., 1994; Prendergast and Topel, 1996; MacLeod, 2003)
- Personnel economics of the state (Finan et al., 2016)
  - Non-pecuniary (career) rewards to incentivize state employees (Banerjee et al., 2012; Ashraf at al., 2014).
- Chinese political meritocracy (Li and Zhou, 2005)
  - Among the first to understand the incentives of grassroots bureaucrats, instead of high-level politicians

▸ Back

Background: CGCS Job Tasks

- 66% of the CGCSs work as clerics in township governments
  - Typical job tasks include doing paper works, hosting villagers, writing reports, and daily administrations, etc
  - Similar to most civil service positions, the job tasks are multi-dimensional and hard to quantify
- 27% of the CGCSs serve as township primary school teachers
  - Due to the lack of unified exams at this level, it is hard to quantitatively compare efficiency across teachers
- 7% of the CGCSs serve as nurses/pharmacists in township clinics
  - Relatively easy to measure performance objectively
  - Enjoy performance pays (bonuses) that are linked to objective measures of performance

▸ Back

Background: China's "Duality" Governance System

- China's duality governance system: every government unit has two administrative leaders: a "government leader" and a "party leader" (Shirk, 1993)
  - This duality arrangement applies to all government units with more than 3 CCP members (including public schools and clinics)
  - Both leaders have the same official ranking, but the party leader is usually perceived slightly more powerful
  - In principle, the government leader is in charge of daily operations of the organization, while party leader oversees the process; in reality the division of labor is often less clear

▸ Back

Conceptual Framework

Supervisor j's assessment of CGCS i is:

$$Y_{ij} = x_i + u_{ij}$$

- x_i: CGCS i's performance on productive dimensions
- u_{ij}: CGCS i's influence activity on supervisor j

Assume that:

- Both leaders care about the productive dimension x_i
- The influence activity u_{ij} is only specific to a particular supervisor

Conceptual Framework

CGCS i maximizes utility (evaluation+leisure) subject to time constraint:

$$\max_{x_i, u_{ij}} \sum_{j \in a,b} s_{ij} \cdot V(Y_{ij}, L_i)$$

s.t.:

$$f(x_i) + \sum_{j \in a,b} g(u_{ij}) + L_i = T$$

- $V(Y, L)$: utility function, increasing and concave in both components
- s_{ij}: the *ex ante* probability of supervisor j evaluating
  - In Revealed Scheme: $s_{ia} = 1, s_{ib} = 0$ or $s_{ia} = 0, s_{ib} = 1$
  - In Masked Scheme: $s_{ia} = s_{ib} = \frac{1}{2}$
- L_i: CGCS i's leisure
- f, g: convex and increasing functions measuring time cost to perform/influence

Conceptual Framework

Aggregate colleague assessment of CGCS i:

$$Y_{ic} = x_i$$

- Since colleague assessment does not carry any stakes, there is no influence activity towards colleagues
- But as (s_{ia}, s_{ib}) changes exogenously, CGCS will re-optimize his effort between x_i and u_{ij}, which would change colleague evaluation Y_{ic}.

Model Intuitions

- In the Revealed Scheme, (s_{ia}, s_{ib}) equals (0,1) or (1,0)
  - This incentivizes evaluator-specific influence activities (u_{ij}), crowding out productive efforts (x_i)
- In the Masked Scheme, (s_{ia}, s_{ib}) changes to (0.5,0.5)
  - Since the CGCS no longer knows which leader is going to evaluate him, leader-specific influence (u_{ij}) becomes less rewarding
  - Instead, efforts would be reallocated from u_{ij} to the "common productive dimension" appreciated by both leaders (x_i)

▸ Back

Endline Survey

Training Surveyors

Field Interviewing

Field Interviewing

- Hired and trained >180 surveyors
- Surveyed 1716 townships in 242 counties

- Go directly to the offices of the CGCS
- CGCS fill in self-assessment forms

- Randomly choose up to 5 colleagues to assess CGCS performance
- Colleagues are anonymous

- Surveyors ensure no communications between CGCS and colleagues
- Randomized daily data quality check

- Both leaders fill in online assessment forms in the end

Back

Official Letters Notifying Evaluation Scheme

尊敬的　　司志：

您好！

我们是来自中国人民大学公共管理学院的课题团队，在　　三支一扶办的支持下，将于 2017 年 10 月至 2018 年 6 月期间开展一次针对全省所有在岗"三支一扶人员"的独立第三方绩效评估，从而为各级政府部门的决策提供依据和参考。

我们将在 2018 年 6 月派出调查团队，实地访问您所任职的　　市　　县　　镇　　中心，针对您在 2017 年 10 月至 2018 年 6 月期间的服务表现，收集一系列的定量数据与定性评价。我们将从中选择相关指标，来衡量您的工作表现，并据此将您的工作绩效与相同类型的其他三支一扶人员进行排名比较。我们会将此次评估的结果完整提供给　　三支一扶办以及各市县的人社部门作为参考；同时，课题组也将对评估结果优异的三支一扶人员进行表彰。

具体而言，针对您的第三方评估方案将包括以下组成部分：

1.您在　　市　　县　　镇　　中心的考勤记录和加班情况

2.您的一位主管领导对您工作表现的评分

2.1.在 2018 年 6 月，课题组将在　　与　　之中随机选择一人进行访问，并请他/她对您的表现进行打分

2.2.在 2018 年 2 月，我们还将邀请　　与　　分别对您的工作表现进行一次中期评价，并将这一信息及时反馈给您作为参考，但这一中期评价将不会被纳入到对您最终的第三方评估当中。

我们所有的信息均来自于通过科学方法实地收集的定量数据和定性指标，除了将上述情况提供给　　一扶办以及各县市人社局以外，我们不会以任何形式将相关信息提供给其它机构或个人。如果您对本次第三方绩效评估有任何问题，欢迎您通过以下方式与我们取得联系：

邮件：

微信：　　博士）

电话：　　博士）

感谢您对本项目的支持，也对您为基层发展做出的贡献表示敬意！

中国人民大学公共管理学院

2017 年 10 月 24 日

Official Letters Notifying Evaluation Scheme

具体而言，针对您的第三方评估方案将包括以下组成部分：

1.您在　市　区　镇人力资源和社会保障所的考勤记录和加班情况

2.您的主管领导许　干事对您工作表现的综合评分

2.1. 为了确保评估的公正合理，我们采用了随机抽签的方式从您的两位主管领导中选择出了负责考核的那一位（许　干事）

2.2. 在 2018 年 2 月，我们还将邀请许　干事 对您的工作表现进行一次中期评价，并将这一信息及时反馈给您作为参考，但这一中期评价将不会被纳入到对您最终的第三方评估当中。

具体而言，针对您的第三方评估方案将包括以下组成部分：

1.您在　市　县　镇扶贫开发中心的考勤记录和加班情况

2.您的一位主管领导对您工作表现的评分

2.1.在 2018 年 6 月，课题组将在黄　副局长与陈　主任之中随机选择一人进行访问，并请他/她对您的表现进行打分

2.2.在 2018 年 2 月，我们还将邀请黄　副局长与陈　主任分别对您的工作表现进行一次中期评价，并将这一信息及时反馈给您作为参考，但这一中期评价将不会被纳入到对您最终的第三方评估当中。

Back

Balance Table: CGCSs

	Mean (Std. Dev.)	Difference between T1 and T2
	(1)	(2)
Age	25.01	0.07
	(1.56)	(0.06)
Gender	0.62	0.01
(=1 if Female)	(0.49)	(0.02)
Year of Enrollment	2016.6	-0.02
	(0.5)	(0.02)
Social Science Major	0.54	-0.01
(=1 if Yes)	(0.50)	(0.02)
4-Year College or Above	0.76	-0.00
(=1 if Yes)	(0.43)	(0.02)
STEM Students in High School	0.35	-0.01
(=1 if Yes)	(0.48)	(0.02)
Party Member	0.22	-0.00
(=1 if Yes)	(0.41)	(0.02)
Parent Completing High School	0.57	0.03*
(=1 if Yes)	(0.50)	(0.02)
Parent Completing College	0.29	-0.00
(=1 if Yes)	(0.45)	(0.02)
Work in Village	0.15	-0.01
(=1 if Yes)	(0.36)	(0.02)
CEE Score	483.30	5.93*
(Points)	(73.43)	(3.57)
Risk Averse	0.47	-0.00
(=1 if Yes)	(0.50)	(0.02)
Obs.		2,839

Balance Table: Colleagues

	Mean (Std. Dev.)	Difference between T1 and T2
	(1)	(2)
Colleague Age	34.50	-0.28
	(8.92)	(0.26)
Colleague Gender	0.57	-0.01
(=1 if Female)	(0.50)	(0.01)
Colleague Education	3.46	-0.02
	(0.71)	(0.02)
Colleague Tenured	0.74	0.00
	(0.44)	(0.01)
Meet Frequency with CGCS	4.75	0.01
Weekly	(0.72)	(0.02)
Know CGCS Well (Work)	9.28	0.02
(0-10)	(1.25)	(0.03)
Know CGCS Well (Life)	8.33	0.07
(0-10)	(2.03)	(0.06)
Colleague Self-Evaluation	4.46	0.05*
(1-7)	(1.21)	(0.03)
Obs.		9,349

Balance Table: Supervisors

	Mean (Std. Dev.)	Difference between T1 and T2
	(1)	(2)
Supervisor 1 Gender	0.17	-0.01
(=1 if Female)	(0.38)	(0.02)
Supervisor 1 Age	44.92	0.19
	(6.94)	(0.33)
Supervisor 1 Work Experience	7.0	0.03
(Years)	(3.4)	(0.16)
Supervisor 1 Education	4.72	-0.00
	(0.57)	(0.03)
Supervisor 1 Duty	0.54	-0.03
(=1 if Party, =2 if Admin)	(0.50)	(0.02)
Supervisor 2 Gender	0.27	-0.00
(=1 if Female)	(0.44)	(0.02)
Supervisor 2 Age	42.60	-0.59*
	(7.59)	(0.36)
Supervisor 2 Work Experience	6.89	0.02
(Years)	(3.46)	(0.17)
Supervisor 2 Education	4.64	0.02
	(0.61)	(0.03)
Supervisor 2 Duty	0.59	-0.02
(=1 if Party, =2 if Admin)	(0.49)	(0.02)
Obs.		2,249

▸ Back

Attrition

Overall 24.9% of the CGCSs are lost over the one-year period, mainly for the following reasons:

- Some CGCSs succeeded in the civil service exams, or found better jobs, and therefore quit (7.4%)
- There existed significant post rotations and transfers over the year, especially for first-year CGCSs. If the change in post leads to changes in evaluating leaders, our interventions become invalid, and these observations are dropped (11.2%)
- Some leaders also got promoted or retired over the year, making our interventions invalid, and these observations are dropped (3.7%)

Attrition Test

	Attrition		
	(1)	(2)	(3)
Masking Evaluator's Identity	-0.010	-0.011	-0.011
	(0.016)	(0.015)	(0.015)
County FE	N	Y	Y
Type FE	N	N	Y
Enroll Year FE	N	N	Y
Obs.	3,785	3,779	3,779
R-Squared	0.000	0.111	0.116

▸ Back

Mechanism: Residualized Evaluator Score

	Residualized Evaluator Score	
	(1)	(2)
Masking	-0.078*	-0.075*
	(0.044)	(0.045)
Same Hometown Evaluator		0.097*
		(0.055)
Same Gender Evaluator		-0.063
		(0.054)
College Graduate Evaluator		0.012
		(0.056)
Party Leader Evaluator		0.059
		(0.060)
County FE	Y	Y
Type FE	Y	Y
Enrol Year FE	Y	Y
Obs.	2,042	1,944
R-Squared	0.141	0.147

- Outcome: The part of evaluator score that cannot be explained by colleague scores (e.g., influence activities)

▸ Back

Supervisor Awareness

	(1)	(2)	(3)
	Supervisor 1 Score Minus Supervisor 2 Score		
Supervisor 1 Eva. (ex ante)	0.310***	0.334***	0.320*
	(0.082)	(0.099)	(0.166)
Sample	Full Sample	Supervisor 1 Unaware of being the Evaluator	Supervisor 1 Aware of Being the Evaluator
Obs.	1,301	888	333
R-Squared	0.160	0.206	0.270
County FE	Y	Y	Y
Type FE	Y	Y	Y
Enrol Year FE	Y	Y	Y

Supervisor Behavioral Change

	(1)	(2)	(3)
	Supervisor 1 Not Responding to the Survey	Sup.1 Writes More Words in Describing CGCS's Job	Sup. 1 Assigns More Tasks to the CGCS
Supervisor 1 Eva. (ex ante)	-0.010	0.649	0.236
	(0.019)	(0.431)	(0.181)
Obs.	1,910	1,910	1,910
R-Squared	0.144	0.147	0.144
County FE	Y	Y	Y
Type FE	Y	Y	Y
Enrol Year FE	Y	Y	Y

▸ Back

Information Quality

	(1)	(2)	(3)
	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
Supervisor 1 Eva. (ex ante)	-0.007	-0.009	0.022
	(0.016)	(0.018)	(0.020)
Obs.	1,910	1,910	1,910
R-Squared	0.121	0.143	0.158
County FE	Y	Y	Y
Type FE	Y	Y	Y
Enrol Year FE	Y	Y	Y

Back

Interpreting Effect Size

	Performance (1-7)	
	Colleague	Supervisor
	(1)	(2)
Age	0.049***	0.058***
	(0.011)	(0.015)
Gender	-0.069*	-0.055
	(0.038)	(0.040)
Social Science	-0.005	-0.004
	(0.038)	(0.040)
4-Year College	0.153***	0.129***
	(0.048)	(0.048)
STEM Students	-0.065	-0.009
	(0.041)	(0.042)
Party Member	0.173***	0.143***
	(0.041)	(0.051)
Parent High Sch.	0.033	0.044
	(0.043)	(0.047)
Parent College	-0.030	0.096*
	(0.047)	(0.051)
Work in Village	0.004	0.090*
	(0.060)	(0.051)
CEE Score	-0.038	0.005
	(0.032)	(0.035)
Risk Averse	-0.009	-0.009
	(0.030)	(0.040)
Obs.	8,871	2,556
R-Squared	0.017	0.032

▸ Back

Interactions with Colleagues

	(1)	(2)	(3)	(4)
	Communication with Colleagues	Meeting with Colleagues	Colleagues Familiar with CGCS Work	Colleagues Familiar with CGCS Life
Masking	-0.008	0.013	0.020	0.066
	(0.013)	(0.020)	(0.034)	(0.059)
County FE	Y	Y	Y	Y
Type FE	Y	Y	Y	Y
Enrol Year FE	Y	Y	Y	Y
Obs.	9,272	9,349	9,252	9,244
R-Squared	0.055	0.066	0.066	0.083

Same Hometown Colleagues

	Colleague Assessment Score		
	Full Sample	Revealed Sample	Masked Sample
	(1)	(2)	(3)
Colleague from Same Hometown	0.051*	0.054	0.056
	(0.028)	(0.034)	(0.051)
County FE	Y	Y	Y
Type FE	Y	Y	Y
Enrol Year FE	Y	Y	Y
Obs.	9,252	6,286	2,954
R-Squared	0.326	0.350	0.340

▸ Back

Information Quality

	(1)	(2)	(3)	(4)
	Evaluator Information		Non-Evaluator Information	
Masking	0.014	0.010	0.001	-0.021
	(0.020)	(0.016)	(0.019)	(0.016)
County FE	Y	Y	Y	Y
Type FE	Y	Y	Y	Y
Enrol Year FE	Y	Y	Y	Y
Information from	CGCSs	Colleagues	CGCSs	Colleagues
Obs.	2,839	2,839	2,839	2,839
R-Squared	0.134	0.123	0.123	0.121

Back