

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

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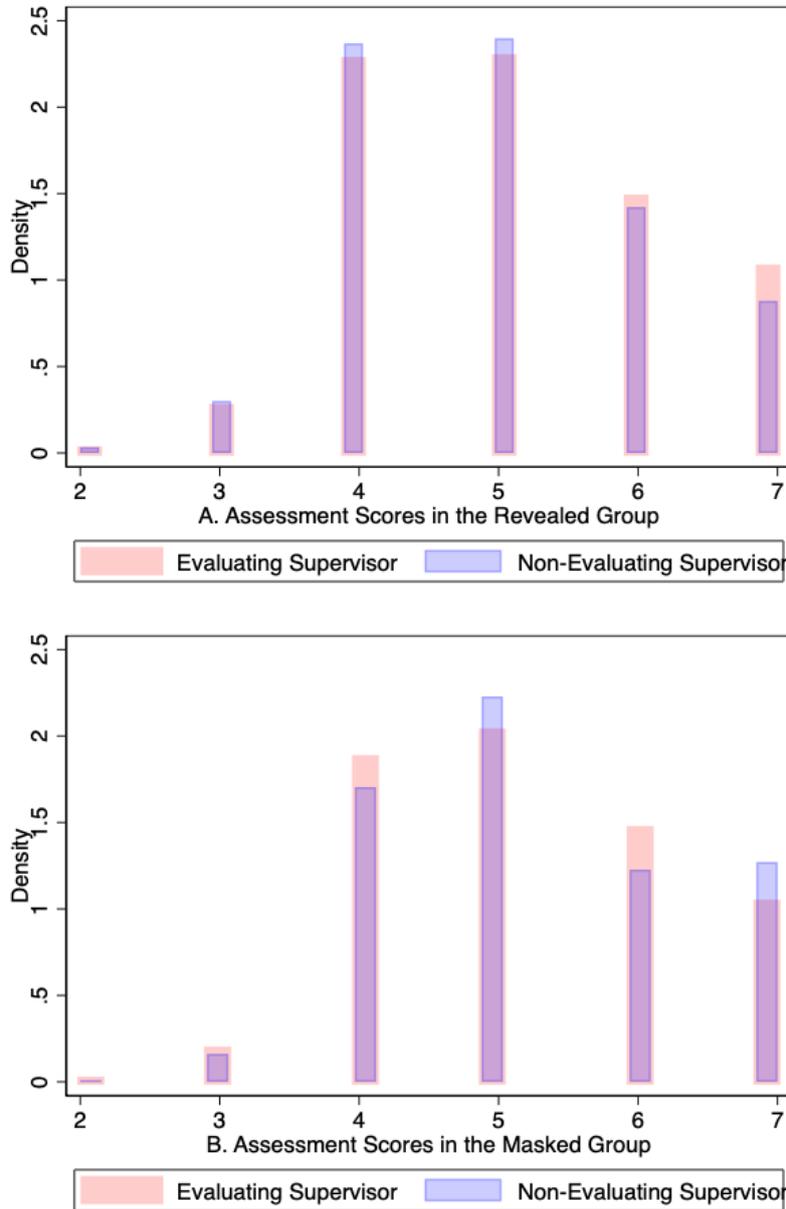
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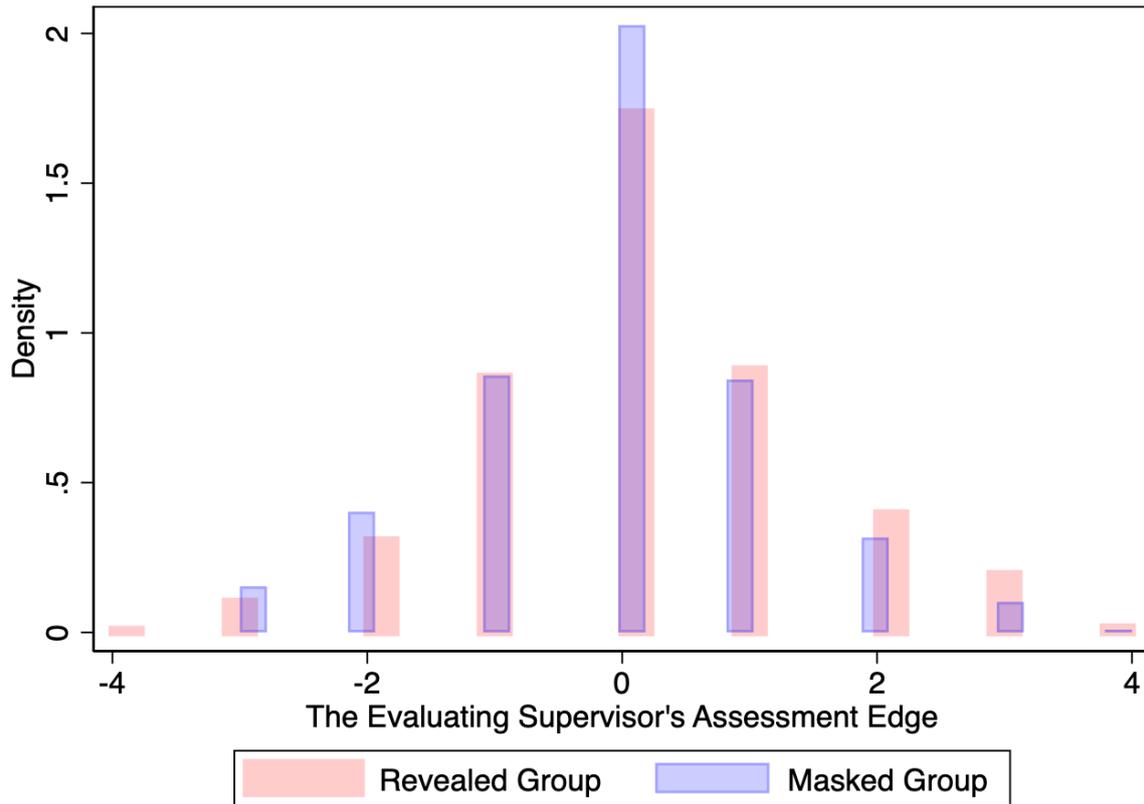
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APPENDIX A. FIGURES AND TABLES



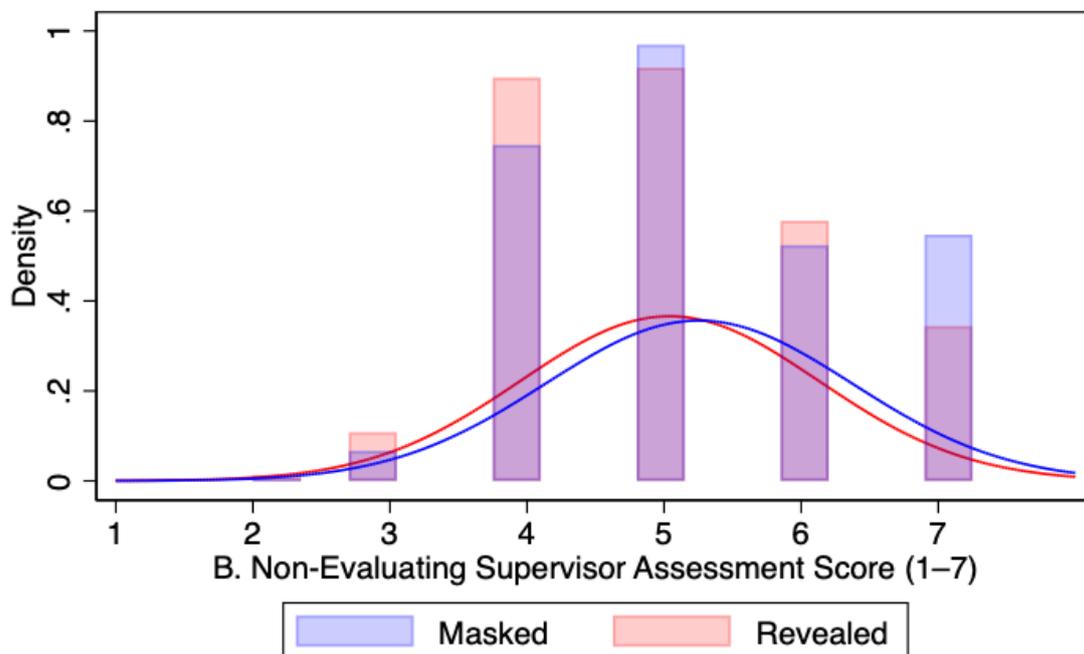
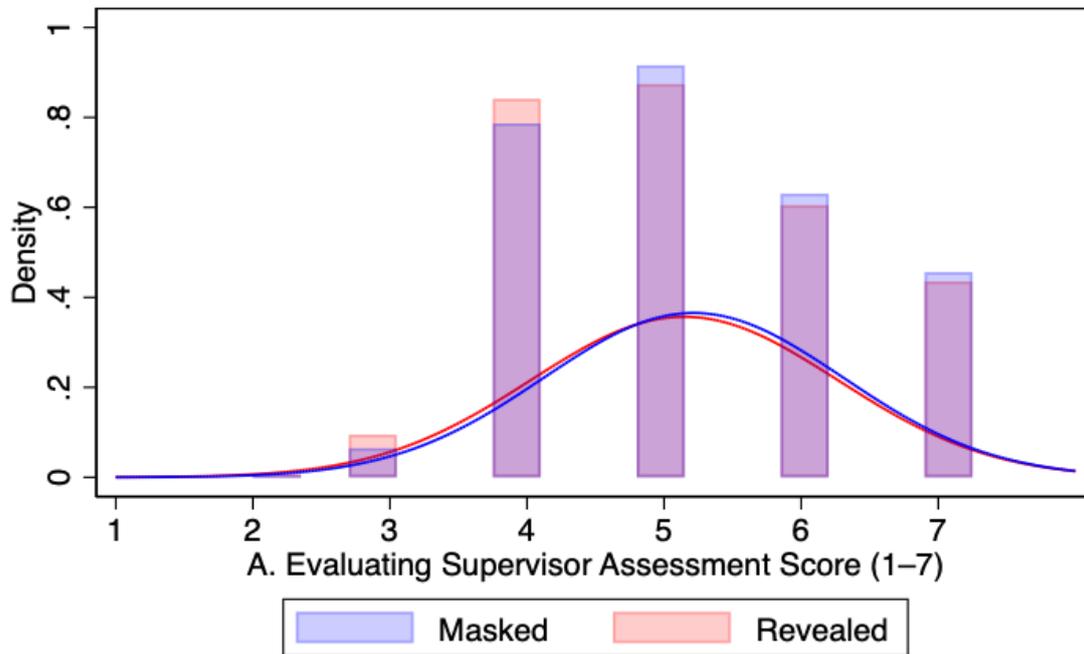
Appendix Figure A1. Distributions of the Supervisors' Assessment Scores Between the Two Evaluation Schemes

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	
Supervisor Hometown	
Supervisor Type (Party vs. Administrative)	
Supervisor Education	
Supervisor Gender	
Other Supervisor Characteristics	
Tasks Assigned Reported by Supervisors	
Meeting Frequency	End-line Supervisor Survey
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	
Colleagues' Guess of Supervisor Assessments	End-line Colleague Survey
Other Colleague Characteristics	
CGCS Promotion Outcomes	Administrative Data from Government Partners
CGCS Intention to Apply for Permanent Positions	
CGCS-Reported Job Task Assignments	
CGCS-Reported Job Task Importance	
CGCS-Reported Performance Improvements	End-line CGCS Survey
CGCS-Reported Challenges with the Job	
CGCS-Reported Beliefs on Meritocracy and Hard Work	
Performance Pay	
CGCS Personality Traits	
Preferred Evaluator by CGCS	
CGCS Education Level	Baseline CGCS Survey
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 (8.993)	34.401 (8.780)	-0.282 (0.259)
Colleague Female	0.571 (0.495)	0.568 (0.495)	-0.010 (0.013)
Colleague Education	3.467 (0.721)	3.444 (0.700)	-0.021 (0.019)
Colleague Tenured	0.730 (0.444)	0.732 (0.443)	0.002 (0.012)
Meet Frequency with CGCS	4.745 (0.731)	4.759 (0.691)	0.013 (0.020)
Know CGCS work Well (0-10)	9.272 (1.257)	9.305 (1.229)	0.020 (0.034)
Know CGCS life Well (0-10)	8.300 (2.046)	8.383 (1.998)	0.066 (0.059)
Colleague Self Assessment (1-7)	4.445 (1.215)	4.500 (1.206)	0.054 (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 (0.423)	0.206 (0.404)	-0.020 (0.019)
Evaluator Age	43.438 (7.544)	43.506 (7.374)	0.112 (0.347)
Evaluator Work Exp (Years)	7.004 (3.321)	6.891 (3.411)	0.021 (0.185)
Evaluator Education	4.656 (0.601)	4.671 (0.598)	0.016 (0.029)
Evaluator Party Leader	0.484 (0.500)	0.498 (0.500)	0.005 (0.021)
Non-Evaluator Female	0.240 (0.427)	0.225 (0.418)	-0.007 (0.020)
Non-Evaluator Age	43.327 (7.990)	42.758 (7.508)	-0.464 (0.352)
Non-Evaluator Work Exp (Years)	6.790 (3.372)	6.938 (3.400)	0.237 (0.189)
Non-Evaluator Education	4.690 (0.601)	4.683 (0.561)	-0.004 (0.028)
Non-Evaluator Party Leader	0.513 (0.500)	0.502 (0.500)	-0.003 (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 (0.427)	0.234 (0.423)	-0.012 (0.015)
Age	43.327 (7.990)	43.438 (7.544)	0.178 (0.258)
Work Experience (Years)	6.790 (3.372)	7.004 (3.321)	0.213 (0.136)
Education	4.690 (0.601)	4.656 (0.601)	-0.033 (0.021)
Party Leader	0.513 (0.500)	0.484 (0.500)	-0.029 (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)	-0.014 (0.010)	0.008 (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 (0.048)	0.024 (0.027)	0.202 (0.132)	0.101 (0.235)	0.011 (0.021)	0.008 (0.017)	0.003 (0.017)	0.006 (0.019)	-0.010 (0.020)	-0.025 (0.021)	-0.033 (0.026)
X	-0.010 (0.022)	0.083 (0.020)	0.000 (0.000)	0.015 (0.006)	-0.015 (0.017)	0.077 (0.023)	0.031 (0.027)	0.022 (0.018)	-0.039 (0.018)	-0.023 (0.017)	-0.021 (0.020)
Mask*X	0.009 (0.036)	-0.038 (0.033)	-0.000 (0.000)	-0.004 (0.009)	-0.031 (0.030)	-0.045 (0.039)	-0.039 (0.046)	-0.026 (0.031)	0.019 (0.030)	0.045 (0.030)	0.043 (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 (0.082)	-0.095 (0.124)	0.075 (0.028)	0.024 (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 "pdlasso.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 (0.087)	-0.110 (0.124)	0.071 (0.029)	0.019 (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 (Lower Bounds)	0.265 (0.121)	-0.204 (0.150)	0.063 (0.029)	-0.043 (0.044)
Supervisor 1 Evaluating (Upper Bounds)	0.244 (0.098)	0.133 (0.141)	0.066 (0.029)	0.048 (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 (0.079)	0.066 (0.027)
Masking	0.249 (0.099)	0.032 (0.035)
Supervisor 1 Evaluating *	-0.381 (0.133)	-0.055 (0.046)
Masking		
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 (0.010)	0.080 (0.018)
Female	-0.055 (0.040)	-0.104 (0.054)
Social Science Major	-0.018 (0.036)	0.038 (0.051)
4-Year College or Above	0.222 (0.041)	0.248 (0.056)
STEM Students in High School	-0.028 (0.037)	0.006 (0.049)
Party Member	0.256 (0.042)	0.282 (0.058)
Parent Completing College	-0.037 (0.040)	0.038 (0.056)
Work in Village	0.042 (0.059)	0.124 (0.067)
CEE Score (100 points)	0.034 (0.028)	0.075 (0.043)
Risk Averse	-0.033 (0.031)	-0.034 (0.049)
Locally Born	0.051 (0.043)	0.105 (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 (0.016)	-0.012 (0.017)	-0.005 (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)
<i>Panel A. Performances Evaluated by Colleagues</i>				
	<u>Performance (1-7)</u>	<u>Top 10%</u>	<u>Hardworking</u>	<u>Qualify for Tenure</u>
Masking	0.179 (0.030)	0.065 (0.012)	0.020 (0.011)	0.031 (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
<i>Panel B. Performances Evaluated by Supervisors</i>				
	<u>Mean Assessment (1-7)</u>	<u>Evaluator Assessment</u>	<u>Non-Evaluator Assessment</u>	<u>Assessment Deviation</u>
Masking	0.138 (0.046)	0.047 (0.055)	0.215 (0.059)	-0.100 (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
<i>Panel C. Performance Pay</i>				
	<u>Wage</u>	<u>ln(Wage)</u>	<u>Wage: Medical Support</u>	<u>ln(Wage: Medical Support)</u>
Masking	48.81 (22.41)	0.02 (0.01)	115.54 (61.94)	0.05 (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 "pdlasso.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)
<i>Panel A. Performances Evaluated by Colleagues</i>				
	<u>Performance (1-7)</u>	<u>Top 10%</u>	<u>Hardworking</u>	<u>Qualify for Tenure</u>
Masking	0.214 (0.036)	0.076 (0.013)	0.030 (0.012)	0.035 (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
<i>Panel B. Performances Evaluated by Supervisors</i>				
	<u>Mean Assessment (1-7)</u>	<u>Evaluator Assessment</u>	<u>Non-Evaluator Assessment</u>	<u>Assessment Deviation</u>
Masking	0.144 (0.047)	0.055 (0.057)	0.219 (0.060)	-0.105 (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
<i>Panel C. Performance Pay</i>				
	<u>Wage</u>	<u>ln(Wage)</u>	<u>Wage: Medical Support</u>	<u>ln(Wage: Medical Support)</u>
Masking	53.44 (23.07)	0.02 (0.01)	139.65 (65.36)	0.06 (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)
<i>Panel A. Performances Evaluated by Colleagues</i>				
	<u>Performance (1-7)</u>	<u>Top 10%</u>	<u>Hardworking</u>	<u>Qualify for Tenure</u>
Masking (Lower)	0.180 (0.044)	0.074 (0.012)	0.015 (0.016)	0.025 (0.009)
Masking (Upper)	0.238 (0.052)	0.090 (0.018)	0.036 (0.013)	0.039 (0.016)
Obs.	3,785	3,785	3,785	3,785
<i>Panel B. Performances Evaluated by Supervisors</i>				
	<u>Mean Assessment (1-7)</u>	<u>Evaluator Assessment</u>	<u>Non-Evaluator Assessment</u>	<u>Assessment Deviation</u>
Masking (Lower)	0.102 (0.054)	0.013 (0.062)	0.178 (0.072)	-0.131 (0.066)
Masking (Upper)	0.150 (0.053)	0.057 (0.064)	0.227 (0.056)	-0.089 (0.055)
Obs.	3,785	3,785	3,785	3,785
<i>Panel C. Performance Pay</i>				
	<u>Wage</u>	<u>ln(Wage)</u>	<u>Wage: Medical Support</u>	<u>ln(Wage: Medical Support)</u>
Masking (Lower)	4.76 (99.50)	0.003 (0.016)	108.63 (70.63)	0.043 (0.028)
Masking (Upper)	52.90 (30.41)	0.025 (0.012)	114.03 (71.01)	0.046 (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 (0.01)	-0.00 (0.01)	-0.00 (0.01)	
Non-Evaluating Sup's Score	-0.00 (0.01)	-0.00 (0.01)	0.00 (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 (0.022)	-0.028 (0.035)	-0.209 (0.167)	0.104 (0.300)	0.057 (0.031)	0.033 (0.023)	0.025 (0.021)	0.011 (0.024)	0.051 (0.028)	0.043 (0.026)	0.011 (0.035)
X	0.014 (0.027)	-0.036 (0.026)	-0.036 (0.020)	0.010 (0.007)	0.027 (0.023)	-0.052 (0.025)	0.018 (0.032)	0.022 (0.023)	0.006 (0.023)	0.002 (0.022)	0.083 (0.026)
Mask*X	0.051 (0.047)	0.076 (0.043)	0.054 (0.035)	-0.003 (0.012)	-0.051 (0.039)	-0.023 (0.043)	0.011 (0.055)	0.047 (0.040)	-0.044 (0.038)	-0.035 (0.038)	0.023 (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 (0.082)	0.326 (0.100)	0.352 (0.169)	0.075 (0.028)	0.070 (0.034)	0.075 (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 (0.731)	-0.004 (0.274)	-0.236 (0.547)	-0.049 (1.237)	-0.232 (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)	-0.019 (0.028)	-0.031 (0.017)	-0.019 (0.026)	0.022 (0.020)	0.050 (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 (Colleague)	0.063 (0.029)	0.072 (0.034)	0.045 (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)
	<u>Evaluator Information</u>		<u>Non-Evaluator Information</u>	
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)
<i>Panel A. Impacts of Masking Evaluator Identify on Colleague Assessment</i>								
	<u>Overall Score</u>	<u>Top 10%</u>	<u>Hardworking</u>	<u>Qualify for Tenure</u>	<u>Overall Score</u>	<u>Top 10%</u>	<u>Hardworking</u>	<u>Qualify for Tenure</u>
Masking	0.233 (0.051)	0.081 (0.019)	0.021 (0.017)	0.043 (0.015)	0.216 (0.038)	0.077 (0.014)	0.029 (0.013)	0.032 (0.011)
Obs.	1,434	1,434	1,434	1,434	2,281	2,281	2,281	2,281
<i>Panel B. Impacts of Masking Evaluator Identify on Supervisor Assessment</i>								
	<u>Mean Evaluation Score</u>	<u>Evaluating Supervisor Score</u>	<u>Non- Evaluating Supervisor Score</u>	<u>Assessment Deviation</u>	<u>Mean Evaluation Score</u>	<u>Evaluating Supervisor Score</u>	<u>Non- Evaluating Supervisor Score</u>	<u>Assessment Deviation</u>
Masking	0.153 (0.062)	0.010 (0.077)	0.289 (0.078)	-0.057 (0.071)	0.151 (0.051)	0.083 (0.061)	0.200 (0.064)	-0.103 (0.053)
Obs.	998	998	998	998	1,524	1,524	1,524	1,524
<i>Panel C. Performance Pay</i>								
	<u>Wage</u>	<u>ln(Wage)</u>	<u>Wage: Medical Support</u>	<u>ln(Wage: Medical Support)</u>	<u>Wage</u>	<u>ln(Wage)</u>	<u>Wage: Medical Support</u>	<u>ln(Wage: Medical Support)</u>
Masking	54.454 (29.040)	0.019 (0.011)	55.413 (97.529)	0.019 (0.040)	45.442 (23.159)	0.020 (0.008)	153.774 (65.915)	0.066 (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 (0.033)	0.187 (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:

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

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

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

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

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 $G'(X^r) + (1 - \alpha) = g'(x^r) = h'(u^r)$.¹ Similarly, for the masked scheme, the KKT conditions yield $G'(X^m) + (\frac{1}{2} - \alpha) = g'(x^m) = h'(u^m)$ for strictly interior solutions.² 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).*

¹ To guarantee the existence of the strict interior solution triplet X^r, x^r , and u^r . We first need $\min(g'(T), h'(T)) > \max(g'(0), h'(0))$ 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 $G'(T - x^{\text{down}} - u^{\text{down}}) + (1 - \alpha) > g'(x^{\text{down}}) = h'(u^{\text{down}})$, and $G'(0) + (1 - \alpha) < g'(x^{\text{up}}) = h'(u^{\text{up}})$ to ensure that X^r takes the interior solution, where x^{up} and u^{up} is the solution that satisfy $x^{\text{up}} + u^{\text{up}} = T$ and $g'(x^{\text{up}}) = h'(u^{\text{up}})$, x^{down} and u^{down} is the solution that satisfy $g'(x^{\text{down}}) = h'(u^{\text{down}}) = \max(g'(0), h'(0))$.

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

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 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 (x_j^m, u_j^m) 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 $E(E^m) - \frac{1}{2}r\text{Var}(E^m) - \text{cost}$, 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 .³

³ 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 $(X^m, x^m, u^m) \approx (2.55, 0.23, 0.23), (X^r, x^r, u^r) \approx (2.15, 0.42, 0.42), E^m \approx 7.87, E^r \approx 7.31$.

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 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 $F(\cdot)$ is a monotonic increasing function and concave function⁴ 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:

$$\begin{aligned} \text{Max}_{X, x_j, u_j} V &= F[\alpha X + \sum_j s_j(x_j + u_j)] - G(X) - g(x_1 + x_2) - h(u_1 + u_2) \\ \text{s.t. } X + \sum_j (x_j + u_j) &= T; X, x_j, u_j \in [0, T] \end{aligned}$$

⁴ The concavity assumption of $F(\cdot)$ 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.

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 $x_2 = u_2 = 0$. 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 $(x_j^m = \frac{1}{2}x^m, u_j^m = \frac{1}{2}u^m)$.

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 $G'(X^r) + (1 - \alpha)F'(\alpha X^r + x^r + u^r) = g'(x^r) = h'(u^r)$.⁵ Similarly, for the masked scheme, the KKT

⁵ To guarantee the existence of the strict interior solution triplet X^r, x^r , and u^r . We first need $\min(g'(T), h'(T)) > \max(g'(0), h'(0))$ to ensure that x^r and u^r take interior values. Note that $g'(0)$ and

conditions yield $G'(X^m) + (\frac{1}{2} - \alpha)F'(\alpha X^m + \frac{1}{2}x^m + \frac{1}{2}u^m) = g'(x^m) = h'(u^m)$ for strictly interior solutions.⁶ 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.*

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

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

When $\alpha > 1$, $\alpha X^r + x^r + u^r = T + (\alpha - 1)X^r \geq T + (\alpha - 1)X^m = \frac{T}{2} + \left(\alpha - \frac{1}{2}\right)X^m + \frac{T - X^m}{2} > \frac{T}{2} + \left(\alpha - \frac{1}{2}\right)X^m$. As $F(\cdot)$ 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 $(\alpha - 1)F'(\alpha X^r + x^r + u^r) - \left(\alpha - \frac{1}{2}\right)F'\left(\alpha X^m + \frac{1}{2}x^m + \frac{1}{2}u^m\right) < 0$, which contradicts the condition $G'(X^r) - g'(x^r) - (G'(X^m) - g'(x^m)) \geq 0$.

$h'(0)$ are monotonic increasing, $g'(x^r) = h'(u^r)$ implies a one-to-one mapping between x and u . We also need the conditions $G'(T - x^{down} - u^{down}) + (1 - \alpha)F'(\alpha T + (1 - \alpha)x^{down} + (1 - \alpha)u^{down}) > g'(x^{down}) = h'(u^{down})$, and $G'(0) + (1 - \alpha)F'(T) < g'(x^{up}) = h'(u^{up})$ 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 $g'(x^{down}) = h'(u^{down}) = \max(g'(0), h'(0))$.

⁶ To guarantee the existence of the strict interior solution triplet X^m, x^m , and u^m . We need $\min(g'(T), h'(T)) > \max(g'(0), h'(0))$, $G'(T - x^{down} - u^{down}) + (\frac{1}{2} - \alpha)F'(\alpha T + (\frac{1}{2} - \alpha)x^{down} + (\frac{1}{2} - \alpha)u^{down}) > g'(x^{down}) = h'(u^{down})$, $G'(0) + (\frac{1}{2} - \alpha)F'(\frac{T}{2}) < g'(x^{up}) = h'(u^{up})$.

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: *the 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:

$$\begin{aligned} \max_{X, v_1, v_2} \quad & pU(X, v_1) + (1 - p)U(X, v_2) \\ \text{s.t.} \quad & X + v_1 + v_2 = T \end{aligned}$$

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

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

$$\begin{aligned} \max_{X, v_1, v_2} \quad & U(X, v_1) \\ \text{s.t.} \quad & X + v_1 = T \end{aligned}$$

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

$$\begin{aligned} \max_{X, v_1, v_2} \quad & \frac{1}{2}U(X, v_1) + \frac{1}{2}U(X, v_2) \\ \text{s.t.} \quad & X + v_1 + v_2 = T \end{aligned}$$

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:

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

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

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:

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

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

When $\theta = \frac{1}{2}$, the maximization problem is:⁷

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

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

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.

⁷ When $U(X, x_i, u_i)$ is strictly concave, we have $x_1 = x_2$; $u_1 = u_2$. Therefore, we have: $\frac{1}{2}U(X, x_1, u_1) + \frac{1}{2}U(X, x_2, u_2) = U(X, x_1, u_1)$