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Remote cross-regional bid evaluation and public procurement market openness: evidence from Fujian's service procurement threshold

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Abstract. In January 2025, Fujian Province lowered the budget threshold for mandatory remote cross-regional bid evaluation in general services from RMB 10 million to RMB 5 million. This study examines 3,600 procurement projects in 2024 and 2025. A difference-in-discontinuities design compares the jumps at the cutoff in evaluation adoption and first-round awards to suppliers outside the buyer's city. In the main window (RMB 4.2–5.8 million), the jump in adoption increased by 66.4 percentage points (95% confidence interval, 55.6 to 77.2), and the jump in out-of-city awards increased by 20.4 points (6.2 to 34.6). Awards to suppliers outside Fujian accounted for 15.4 points of the latter increase, and awards to suppliers in other Fujian cities accounted for 5.0 points. At bandwidths of RMB 0.6 million and RMB 1 million, the estimates for out-of-city awards were 15.3 points (−1.2 to 31.8) and 16.6 points (3.6 to 29.7), respectively. The increase in out-of-city awards corresponded chiefly to a decline in local awards.

Keywords: remote cross-regional bid evaluation, public procurement, market openness, out-of-city awards, difference-in-discontinuities

1. Introduction

The geography of public contract awards offers a way to observe whether procurement markets are open to suppliers from other places. Delivery distance, response times and ongoing support can affect a firm's competitiveness. Procurement procedures, eligibility criteria and evaluation arrangements also shape who wins. Evidence from winning and losing bids in China links local suppliers' advantage to the career incentives of local officials [1]. Studies of procurement contracts and court cases identify eligibility criteria and expert evaluation as channels that can influence the allocation of contracts [2].

Experts drawn from different regions evaluate bids online from linked sites. On January 1, 2025, Fujian

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lowered the threshold for mandatory use in general services from RMB 10 million to RMB 5 million[1]. Projects with similar budgets then faced different evaluation requirements on either side of the cutoff. This study compares the jumps at RMB 5 million before and after the reform in adoption and first-round out-of-city awards.

2. Literature and hypotheses

2.1. Procurement competition and the geography of awards

A supplier's location affects the cost of delivering a contract and may also affect its opportunities in the bidding process. Competition among local officials is associated with fewer awards to firms in rival cities [3]. Firms may also invest in the buyer's jurisdiction to enter markets where contracts were previously harder to win [4]. Contract requirements and the cost of bidding affect suppliers' decisions to enter service tenders [5]. The locations of the buyer and the named awardee are used to classify awards and measure openness in contract allocation by the probability of a first-round out-of-city award.

2.2. Digitalization and bid evaluation

Advance notices give suppliers earlier access to procurement plans. Research in China finds that publishing these notices increases cross-regional competition [6]. Digital government reforms have also been linked to more cross-regional procurement transactions [7]. The use of digital tools can change how participants interact. In Japanese construction tenders, the relationship between electronic procurement and bids varied with the scope for bidders to meet in person [8]. Evidence from Italy also shows that the relationship between electronic tools, competition and disclosure varies by procurement procedure [9].

Drawing experts from a wider pool can improve the match between experts and projects and may reduce reliance on local relationships. Research on procurement institutions distinguishes formal requirements from actual practice when examining outcomes [10]. Two hypotheses are tested.

H1. After the threshold is lowered, the jump in actual use of remote cross-regional bid evaluation at RMB 5 million increases.

H2. After the threshold is lowered, the jump in the probability of a first-round out-of-city award at RMB 5 million increases.

3. Institutional setting

Fujian launched its remote cross-regional bid evaluation system in September 2023. The trial rules required its use for service projects with budgets of at least RMB 10 million. Separate provisions applied to eligible construction projects and categories such as property management, security and landscaping[2]. On January 1, 2025, the threshold for general services fell to RMB 5 million, inclusive.

The analysis covers general service projects. The revised rule mandates remote evaluation for projects at or above RMB 5 million. Projects below that budget can use it where needed. Policy coverage is coded from the

[1] Fujian Provincial Department of Finance (2024). Notice on Revising the Province-Wide Applicability Criteria for Remote Cross-Regional Bid Evaluation in Public Procurement, Fujian Finance Procurement Letter No. 6 (2024).

[2] Fujian Provincial Department of Finance (2023). Trial Rules for Remote Cross-Regional Bid Evaluation in Public Procurement, Fujian Finance Procurement No. 3 (2023).

year and budget, actual adoption from the recorded evaluation mode, and award geography from the supplier and buyer locations.

4. Data and methods

4.1. Sample and measures

The sample covers 1,800 service projects in each of 2024 and 2025. All are first-round open tenders in Fujian with a single procurement lot and a budget between RMB 3.8 million and RMB 6.2 million. Services include information system maintenance, archive digitization, data governance, survey and assessment services, and inspection and monitoring. The project records contain the initial budget, the evaluation mode, the buyer's and awardee's locations, and the first-round outcome.

The denominator is all projects with a known first-round outcome. Awards to suppliers outside the buyer's city are coded as one, and local awards or no award after evaluation as zero. Out-of-city awards comprise awards within Fujian and awards outside Fujian. Tenders that end without an award after evaluation form a separate outcome. Evidence from Chinese procurement notices links such outcomes to project attributes and market conditions [11]. Table 1 defines the variables.

Table 1. Variable definitions

Category	Variable	Definition
Running variable	x	Initial budget minus RMB 5 million, in units of RMB 10,000.
Period	P	One in 2025 and zero in 2024.
Cutoff side	A	One for a budget of at least RMB 5 million, zero otherwise.
Policy coverage	$P \times A$	One in 2025 at or above RMB 5 million, zero otherwise.
Implementation	Actual adoption	One when the project uses remote cross-regional bid evaluation, zero otherwise.
Main outcome	Out-of-city award	One for a first-round award to a supplier outside the buyer's city, zero otherwise.
Other outcome	Within-provinceout-of-city award	One for an award to a supplier in another city in Fujian, zero otherwise.
Other outcome	Out-of-province award	One for an award to a supplier outside Fujian, zero otherwise.
Other outcome	Local award	One for an award to a supplier in the buyer's city, zero otherwise.
Other outcome	No award after evaluation	One when the first round ends without an award after evaluation, zero for an award.

4.2. Difference-in-discontinuities model

The running variable x is the initial budget minus RMB 5 million. P indicates 2025, and A indicates a budget of at least RMB 5 million. The main specification fits a local linear regression within RMB 0.8 million on either side of the cutoff, with equal weights for projects [12, 13].

$$Y_i = \alpha + \gamma P_i + \delta A_i + \tau P_i A_i + x_i(\beta_0 + \beta_1 P_i + \beta_2 A_i + \beta_3 P_i A_i) + \varepsilon_i \quad (1)$$

Equation (1) allows the intercept and budget slope to vary by year and side of the cutoff. The coefficient τ is the jump in 2025 minus the jump in 2024. The same specification applies to each outcome. Standard errors are clustered by buyer with a finite-sample adjustment, and 95% confidence intervals use the normal approximation. Additional bandwidths are RMB 0.6 million and RMB 1 million. Placebo tests use cutoffs of RMB 4.7 million and RMB 5.3 million with a bandwidth of RMB 0.2 million.

Identification rests on the cutoff jump being stable across years in the absence of the reform and on the comparability of projects near the cutoff before and after the change. Buyers may adjust budgets to select a procurement procedure, which makes the distribution of contract values near the cutoff a useful diagnostic [14, 15]. Counts close to the cutoff are reported for both years. Local estimates are compared across alternative cutoffs within the same budget range.

5. Results

5.1. Sample distribution

Of the 3,600 projects, 1,170 (32.5%) used remote cross-regional bid evaluation. Out-of-city suppliers won 1,012 projects (28.1%), including 317 awards to suppliers outside Fujian. A further 242 tenders (6.7%) ended without an award after evaluation. The main window contains 2,398 projects. Within RMB 0.1 million of the cutoff, there were 82 projects below and 82 at or above it in 2024, and 75 and 79, respectively, in 2025.

Table 2. Descriptive statistics by year and side of the cutoff

Year	BudgetSide	Projects	MeanBudget	RemoteEvaluation	Out-of-CityAwards	No Award
2024	< 500	611	460.6	12.8%	20.1%	6.4%
2024	≥ 500	588	541.3	16.0%	25.3%	6.3%
2025	< 500	608	460.8	14.5%	25.7%	7.6%
2025	≥ 500	591	539.9	87.0%	42.1%	6.4%

Note: The main window runs from RMB 4.2 million to RMB 5.8 million. Budgets are in units of RMB 10,000. Each rate uses all first-round projects in that group as its denominator.

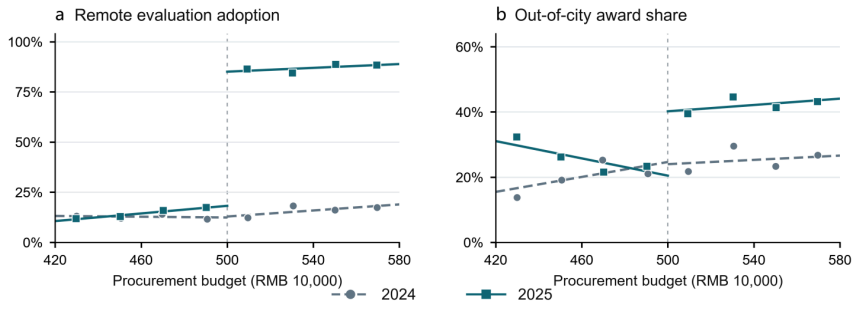


Figure 1. Evaluation adoption and out-of-city awards around the RMB 5 million cutoff. (a) Remote evaluation adoption. (b) Out-of-city award share

Note: Each marker is the mean within a budget bin of RMB 0.2 million, plotted at the bin's mean budget. Lines show local linear fits in the main window. The vertical dashed line marks the RMB 5 million cutoff.

In the main window, the adoption rates below and above the cutoff were 12.8% and 16.0% in 2024 and 14.5% and 87.0% in 2025 (Table 2). The difference in out-of-city award shares across the two groups was also larger in 2025. Figure 1 shows the means by budget bin and the local linear fits for both years.

5.2. Adoption and award geography

The fitted jump in adoption rose from 0.5 percentage points in 2024 to 66.9 points in 2025. The difference was 66.4 points (95% confidence interval, 55.6 to 77.2). The jump in out-of-city awards rose from −0.7 to 19.7 points, a difference of 20.4 points (95% confidence interval, 6.2 to 34.6). The directions of the two estimates are consistent with H1 and H2, respectively (Table 3).

Table 3. Difference-in-discontinuities estimates for evaluation and procurement outcomes

Outcome	2024Jump	2025Jump	Differencein Jumps	ClusteredSE	95% CI
Remote evaluation adoption	0.5	66.9	66.4	5.5	[55.6, 77.2]
Out-of-city award	−0.7	19.7	20.4	7.2	[6.2, 34.6]
Within-province out-of-city award	5.8	10.8	5.0	5.5	[−5.9, 15.9]
Out-of-province award	−6.5	8.9	15.4	4.2	[7.2, 23.6]
Local award	2.3	−16.3	−18.6	7.9	[−34.2, −3.0]
No award after evaluation	−1.6	−3.4	−1.8	4.3	[−10.3, 6.7]

Note: The main window contains 2,398 projects. Standard errors are clustered by buyer. Estimates, standard errors and intervals are in percentage points.

The estimate for out-of-city awards comprised 15.4 points for awards to suppliers outside Fujian (95% confidence interval, 7.2 to 23.6) and 5.0 points for awards to suppliers in other cities within Fujian (−5.9 to 15.9). The estimates for local awards and tenders that ended without an award after evaluation were −18.6 and −1.8 points, respectively. The increase in out-of-city awards corresponded chiefly to a decline in local awards.

5.3. Bandwidth and placebo cutoffs

Table 4. Bandwidth sensitivity and placebo cutoffs

Cutoff	Bandwidth	Projects	AdoptionEstimate	Out-of-CityEstimate	Out-of-City95% CI
500	± 60	1,806	66.7	15.3	[−1.2, 31.8]
500	± 80	2,398	66.4	20.4	[6.2, 34.6]
500	± 100	3,035	67.1	16.6	[3.6, 29.7]
470 (placebo)	± 20	641	—	24.2	[−1.0, 49.4]
530 (placebo)	± 20	553	—	4.7	[−22.3, 31.8]

Note: Cutoffs and bandwidths are in units of RMB 10,000. Estimates and intervals are in percentage points. The placebo rows report estimates for out-of-city awards.

Across the three bandwidths, estimates for adoption ranged from 66.4 to 67.1 percentage points, and estimates for out-of-city awards ranged from 15.3 to 20.4 points. With the RMB 0.6 million bandwidth, the 95% confidence interval for out-of-city awards ran from −1.2 to 31.8 points. At the RMB 4.7 million and

RMB 5.3 million placebo cutoffs, the point estimates were 24.2 and 4.7 points, respectively. Table 4 reports the corresponding intervals.

6. Discussion

Advance procurement notices change when firms learn about tenders [6]. Fujian's reform changed a later stage by altering how evaluation panels are formed and how they work. At the RMB 5 million cutoff, the jump in adoption grew after the reform, alongside a shift in where first-round awards went.

Adoption estimates were close across bandwidths. The precision of the estimates for out-of-city awards varied with the window, and the intervals at both placebo cutoffs were wide.

7. Conclusion

After Fujian lowered the threshold to RMB 5 million, the jumps in remote evaluation adoption and first-round out-of-city awards increased by 66.4 and 20.4 percentage points in the main window. Out-of-province awards accounted for most of the latter increase, which corresponded chiefly to a decline in local awards.

References

[1] Tang, W., Wang, Y., & Wu, J. (2025). Local favoritism in China's public procurement: Information frictions or incentive distortion? *Journal of Urban Economics, 145*, 103716. https://doi.org/10.1016/j.jue.2024.103716

[2] Lu, S., & Wang, H. (2023). How political connections exploit loopholes in procurement institutions for government contracts: Evidence from China. *Governance, 36*(4), 1205–1224. https://doi.org/10.1111/gove.12735

[3] Fang, H., Li, M., & Wu, Z. (2025). Tournament-style political competition and local protectionism: Theory and evidence from China. *Journal of Public Economics, 248*, 105421. https://doi.org/10.1016/j.jpubeco.2025.105421

[4] Li, J., Yuan, C., & Huang, Z. (2025). Invest to win: A study of "local bias jumping" in China. *Journal of Economic Behavior & Organization, 236*, 107127. https://doi.org/10.1016/j.jebo.2025.107127

[5] Drake, S., & Xu, F. (2025). Contractual requirements and bidding behavior in public procurement with entry. *Journal of Public Economic Theory, 27*(1), e70019. https://doi.org/10.1111/jpet.70019

[6] Wu, W., Wang, M., & Cao, C. (2025). Disclosure of government procurement intentions and cross-regional competition among enterprises. *Business Management Journal, 47*(2), 84–102. (In Chinese.)

[7] Duan, K., Yu, M., Li, C., & Bao, J. (2026). "Internet Plus Government Services" and cross-regional public procurement transactions: Building a unified national market. *China Soft Science*, (8), 17–30. (In Chinese.)

[8] Ishii, R. (2022). Can e-procurement reduce bid rigging in public auctions? *Journal of Competition Law & Economics, 18*(2), 456–482. doi:10.1093/joclec/nhab019

[9] Gaeta, G. L., Malandrino, A., & Di Mascio, F. (2026). Transparency or access? E-procurement's two paths to integrity: Evidence from Italy. *Regulation & Governance*, advance online publication. doi:10.1111/rego.70167

[10] Bosio, E., Djankov, S., Glaeser, E., & Shleifer, A. (2022). Public procurement in law and practice. *American Economic Review, 112*(4), 1091–1117. doi:10.1257/aer.20200738

[11] Ye, T., & Zeng, Y. (2026). Why do public tenders fail? Evidence from Chinese government procurement notices, 2018–2022. *Public Administration and Policy Review, 15*(2), 112–133. (In Chinese.)

[12] Cattaneo, M. D., & Titiunik, R. (2022). Regression discontinuity designs. *Annual Review of Economics, 14*, 821–851. doi:10.1146/annurev-economics-051520-021409

[13] Goeyvaerts, G. (2026). Identification with sharp difference-in-discontinuities and discontinuity-in-differences. *Applied Economics Letters*, advance online publication. doi:10.1080/13504851.2026.2721552

[14] Szucs, F. (2024). Discretion and favoritism in public procurement. *Journal of the European Economic Association, 22*(1), 117–160. doi:10.1093/jeea/jvad017

[15] Fusejima, K., Ishihara, T., & Sawada, M. (2025). A unified test for regression discontinuity designs. *Journal of Econometrics, 251*, 106074. doi:10.1016/j.jeconom.2025.106074