Table A1: Definition of non-political variables used in the analysis (*continued*)

Category	Variable	Description
Employment	Employees	Number of employees within a firm (6 fortnights prior to the auction results)
	Employees, HE	Number of employees with a higher education level (HE) within a firm (6 fortnights prior to the auction results)
	Employees, LE	Number of employees with a lower education level (LE) within a firm (6 fortnights prior to the auction results)
	Hires	Number of hires within a firm (per day, during the 6 fortnights period prior to the auction results)
	Fires	Number of fires within a firm (per day, during the 6 fortnights period prior to the auction results)
	Tenure	Number of days an average employee is employed in a firm (6 fortnights prior to the auction results)
	Employee age	Age of an average employee (on the day he is employed) that is employed in a firm (6 fortnights prior to the auction results)
	Non-fixed term contracts	Percentage of non-fixed term contracts within a firm (6 fortnights prior to the auction results)
Projects	Backlog extensive	Number of government contracts won by a firm during the 3 years prior to an auction (includes contracts from whole 3 years prior)
	Backlog intensive	Value of government contracts won by a firm during the 3 years prior to an auction (includes contracts from whole 3 years prior) VAT is not included.
	Distance to contracting authority	Distance between contractors' and firms' headquarters (air distance - in kilometers)
Balance sheet	Total assets	Total assets of a firm according to the nearest end-of-year financial reports prior to the auction results
	Current assets	Current assets of a firm according to the nearest end-of-year financial reports prior to the auction results
	Fixed assets	Fixed assets of a firm according to the nearest end-of-year financial reports prior to the auction results

Table A1: Definition of non-political variables used in the analysis (*continued*)

Category	Variable	Description
	Total liabilities	Total liabilities of a firm according to the nearest end-of-year financial reports prior to the auction results
	Non-current liabilities	Non-current liabilities of a firm according to the nearest end-of-year financial reports prior to the auction results
Income statement	Revenue	Revenue of a firm according to the nearest end-of-year financial reports prior to the auction results
	Market revenue	Revenue of a firm (according to the nearest end-of-year financial reports prior to the auction results) subtracted by the "Public revenue"
	Public revenue	Total value a firm won one year prior to the auction results within the PPC's within our database. VAT is not included
	EBITDA	EBITDA of a firm according to the nearest end-of-year financial reports prior to the auction results
	Profit	Profit of a firm according to the nearest end-of-year financial reports prior to the auction results
	Depreciation	Depreciation of a firm according to the nearest end-of-year financial reports prior to the auction results
	Interest paid	Interest paid of a firm according to the nearest end-of-year financial reports prior to the auction results
	Productivity	Revenue of a firm according to the nearest end-of-year financial reports prior to the auction results over the number of employees within a firm 6 fortnights prior to the auction results
	Wage costs	Wage costs of a firm according to the nearest end-of-year financial reports prior to the auction results

Table A1: Definition of non-political variables used in the analysis (*continued*)

Category	Variable	Description
Financial ratios	EBITDA over assets	EBITDA over total assets of a firm according to the nearest end-of-year financial reports prior to the auction results
	Profit over assets	Profit after tax over total assets of a firm according to the nearest end-of-year financial reports prior to the auction results
	Debt ratio	Total liabilities over total assets of a firm according to the nearest end-of-year financial reports prior to the auction results
	LR liabilities over assets	Non-current liabilities over total assets of a firm according to the nearest end-of-year financial reports prior to the auction results
	Outsourcing over total expenses	Total outsourcing (external-work) costs over the total firms costs of a firm according to the nearest end-of-year financial reports prior to the auction results
	External labour over total labour costs	Total cost of student workers, agency workers, subcontractors & other one-off contractors over the total worker expenses of a firm according to the nearest end-of-year financial reports prior to the auction results
Education	(HE) Higher education level	Requirements for a specific job vacancy, containing: specialized doctorate degree, doctorate degree, masters degree (& specialized maters programs), bachelor's degree
	(LE) Lower education level	Requirements for a specific job vacancy, any degree of education below the/not mentioned in the degrees required for an HE classification
	Win margin	$\dfrac{|2nd\,best\,bids\,value - winning\,bids\,value|}{2nd\,best\,bids\,value}$
	Dependent variable	$\dfrac{(Employment_{i,t} - Employment_{i,base})}{Employment_{i,base}}$ Note: the base period is the beginning of the 6th fortnight prior to the day of the auction results.

Table A2: Political connection dummies

Match	Name	Dummies, equal to 1 if:
Last name match	Donators	A firm has ever donated to any political party according to our database of donations.
	Reg. conn. (out of power)	A firm has, within its management/owners, anyone with the same full name as an ex-regional politician (substitutes of-, governors, member of county councils) in the county of the firm's headquarters.
	Reg. conn. (in power)	A firm has, within its management/owners, anyone with the same last name as a current regional politician (substitutes of-, governors, member of county councils) in the county of the firm's headquarters.
	Loc. conn. (out of power)	A firm has, within its management/owners, anyone with the last name as an ex-member of the local political representatives in the municipality of the firm's headquarters.
	Loc. conn. (in power)	A firm has, within its management/owners, anyone with the same full name as a current member of the local pollitical representatives in power in the municipality of the firm's headquarters.
Full name match	GONG/Nat. conn.	A firm has, within its management/owners, anyone with the same full name as an ex- or a current member of the national parliament or the parties representatives.
Final dummies	Any	Any of the previous dummies are 1.
	Any (second order)	Any of the managers/owners within firms where Any = 1 are members of the management/owners.

Notes: "(in power)" refers to the ruling party in the observed part of the state. The elections on the regional & local level took place in 2013 & 2017, meaning we consider a politician "in power" if he was a mayor/deputy mayor/member of the local council.

Table A3: Public procurement in the Republic of Croatia

Year	GDP	PPC	PPC in GDP (%)	PPC – EOJN	Simple PPC	No. of PPC	No. of PPC w. MEAT (%)	Share of PPC value MEAT	Construction PPC's value in PPC's at EOJN (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2015	339.7	40.6	11.9	31.1	9.5	15485	2.4	7.8	46.9
2016	351.2	44.8	12.8	34.6	10.3	13838	2.5	6.6	27.7
2017	366.4	40.5	11.0	31.0	9.4	11408	57.1	57.7	42.0
2018	383.0	46.6	12.2	36.6	10.0	18112	95.5	95.4	50.8

Notes: All monetary values are given in billion Kuna. Source: Statistical Reports on Public Procurement, link: http://www.javnanabava.hr/default.aspx?id=3425.

Column (3) shows the total PPC value awarded. (4) shows total PPC value awarded as % of GDP. (5) shows the value of PPCs published at EOJN. (6) gives the value of all PPC which do not legally require a tendering process (all PPC whose final value is under 250,000 HRK [with VAT]). (8) shows % of PPC awarded by MEAT criteria, (9) does the same but comparing values of PPC. (10) simply looks at what % of PPC at EOJN have their CPV start with 45xy.

Table A4: Single bid auctions

	Year	2016	2017	2018	Total
(1) All PPC	Count	1412	1449	1378	4239
(2) Single bid	Count	332	286	32	650
(3) Single bid	Share	0.2351	0.1974	0.0232	0.1533
(4) Single bid	Amount (in mil. €)	142.6631	322.7729	24.6659	490.1019
(5) Winners donating	Share	0.1754	0.1388	0.0604	0.1455
(6) Winners pol. conn.	Share	0.5367	0.7683	0.3626	0.6804
(7) Suspicious winners	Share	0.1049	0.4696	0.3882	0.3593
(8) Ad 5, 6 & 7 Won	Amount (in mil. €)	100.5075	285.874	19.732	406.1134

Notes: 4239 auctions are in the entire sample when we exclude only the auctions for which we do not have the necessary data. Of those 4239, 650 were single bid auctions, however 332 more are excluded, as they become single bid auctions because of invalid and/or excluded bids. Those 332 are not observed in single bid auctions above, they are represented below. VAT is included.

Table A5: Single bid auctions by exclusion

	Year	2016	2017	2018	Total
(1) All PPC	Count	1412	1449	1378	4239
(2) Single bid	Count	52	68	212	332
(3) Single bid	Share	0.0368	0.0469	0.1538	0.0783
(4) Single bid	Amount (in mil. €)	42.1524	225.2118	180.6239	447.9881
(5) Winners donating	Share	0.106	0.0837	0.2303	0.1449
(6) Winners pol. conn.	Share	0.6498	0.9132	0.6713	0.7909
(7) Suspicious winners	Share	0.2479	0.8	0.1095	0.4696
(8) Ad 5, 6 & 7 Won	Amount (in mil. €)	30.4392	214.2173	139.5041	384.1605

Notes: Rows 5, 6 & 7 show the share of values of PPC won by each of the groups of single bidders respectively. Row 5 shows the share of the total value awarded to single bidders with previous donations to a political party, row 6 to single bidders with political connections (see 4.4.3), and row 7 to single bidders which are deemed suspicious (firms formed 1 year or sooner before the auction, firms with no employees, firms which won an auction that surpassed 70% of their last years revenue). The last row shows the value that was awarded to firms in rows 5, 6 & 7 (overlap is accounted for). VAT is included.

Table A6: Multiple bid auctions

	Year	2016	2017	2018	Total
(1) All PPC	Count	1412	1449	1378	4239
(2) Multiple bid	Count	1028	1095	1134	3257
(3) Multiple bid	Share	0.728	0.7557	0.8229	0.7683
(4) Multiple bid	Amount (in mil. €)	921.6257	732.3651	1137.792	2791.7828
(5) Winners donating	Share	0.1811	0.1423	0.1035	0.1393
(6) Winners pol. conn.	Share	0.364	0.5113	0.2946	0.3744
(7) Suspicious winners	Share	0.1041	0.0531	0.0864	0.0835
(8) Ad 5, 6 & 7 Won	Amount (in mil. €)	443.5301	415.659	463.8711	1323.0602

Notes: We observe the 3257 auctions which had multiple valid bids. Of those we later on exclude ones in which a winner or a runner-up is firm for which we do not have the necessary employment data. We are left with 2859 auctions afterwards. VAT is included.

Table A7: Bidder quantity effect on winning bid (as % of beginning estimate)

| | All | Subsamples | | | | |
| | | 1 vs. 2 | 1 vs. 3 | 1 vs. 4 | 1 vs. (5 to 8) | 1 vs. (more than 8) |
	(1)	(2)	(3)	(4)	(5)	(6)
2 valid bids	−0.074*** (0.008)	−0.075*** (0.009)				
3 valid bids	−0.119*** (0.008)		−0.126*** (0.009)			
4 valid bids	−0.147*** (0.010)			−0.150*** (0.010)		
(5 to 8) valid bids	−0.178*** (0.009)				−0.177*** (0.009)	
(more than 8) valid bids	−0.278*** (0.022)					−0.261*** (0.023)
Mean beginning estimate	0.78	0.77	0.66	0.57	0.89	1.16
N	4.108	1.971	1.737	1.446	1.663	995
R^2	0.167	0.099	0.154	0.170	0.239	0.186
Adjusted R^2	0.156	0.078	0.132	0.144	0.218	0.148
Residual Std. Error	0.173 (df = 4057)	0.182 (df = 1924)	0.175 (df = 1692)	0.177 (df = 1401)	0.173 (df = 1617)	0.178 (df = 950)

Notes: We observe the entire sample of 4239 auctions, however we exclude 131 auctions as their winning bid (as % of the beginning estimate) is in the top or bottom 1% of observations. Meaning we observe 4108 auctions in column (1), and its subsamples in other columns. Column (2), for example, regresses the ratio on the subsample of auctions which had either 1 or 2 valid bids, & the other remaining columns follow the same principle. Regression is controlled for county, season, year & 4 digit CPV specific effects. Mean beginning estimate is in mil. €.
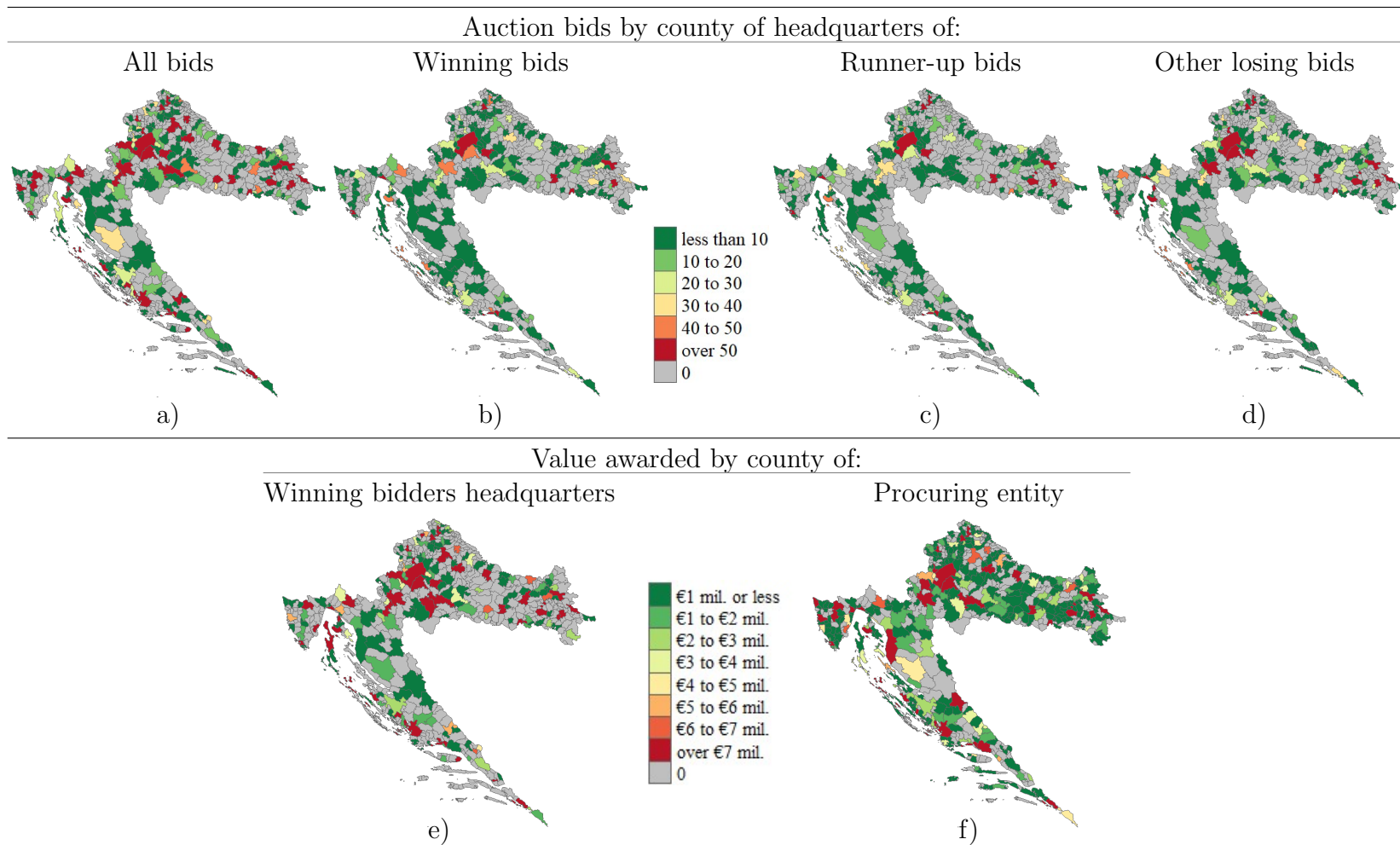
***, **, * Significant at the 1, 5, 10 percent level.

Table A8: Procurement contracts distribution by 6 digit CPV

6 digit CPV	CPV description	No. of Auctions	No. share	Estimated value	Estimated values share	Final value	Final values share	Mean final value	Median final value
452331	Works on building highways and roads	614	0.14	447.08	0.13	356.11	0.12	0.58	0.18
450000	Building (unspecified)	269	0.06	225.41	0.06	182.79	0.06	0.68	0.21
454540	Reconstruction and renovation	201	0.05	117.36	0.03	97.25	0.03	0.48	0.2
452313	Works on constructing water and sewer pipelines	191	0.05	228.83	0.07	212.03	0.07	1.11	0.26
452330	Construction works, works on building foundations and works on constructing surface highway roads	165	0.04	154.72	0.04	112.3	0.04	0.68	0.17
452310	Works on constructing pipelines, communication, energy and water supply.	143	0.03	71.92	0.02	61.98	0.02	0.43	0.17
452332	Different works on surface layer	136	0.03	43.59	0.01	35.94	0.01	0.26	0.12
454531	Maintenance	128	0.03	92.9	0.03	74.68	0.03	0.58	0.13
452000	Works on buildings or parts of high-rise and low-rise buildings	122	0.03	84.59	0.02	68.32	0.02	0.56	0.16
452321	Works on water supply pipelines	93	0.02	53.85	0.02	40.09	0.01	0.43	0.19
	In top 10	2062	0.49	1520.25	0.44	1241.49	0.42	0.6	0.19
	Total	4239	1.00	3476.19	1.00	2983.9	1.00	0.7	0.18

Notes: All values are given in mil. €. The CPV distribution encompasses all 4239 auctions in the sample.

Figure A1: PPC value & auctions awarded in auctions with multiple bidders

Auction bids by county of headquarters of:

All bids	Winning bids	Runner-up bids	Other losing bids

less than 10
10 to 20
20 to 30
30 to 40
40 to 50
over 50
0

a) b) c) d)

Value awarded by county of:

Winning bidders headquarters   Procuring entity

€1 mil. or less
€1 to €2 mil.
€2 to €3 mil.
€3 to €4 mil.
€4 to €5 mil.
€5 to €6 mil.
€6 to €7 mil.
over €7 mil.
0

e) f)

Notes: VAT is included.

Table A9: Auction summary

	All auctions			Close auctions (Within 10%)			Close auctions (Within 6%)			Close auctions (Within 4%)		
	Mean	St. Dev.	Median	Mean	St. Dev.	Median	Mean	St. Dev.	Median	Mean	St. Dev.	Median
Auction estimate	808.42	5957.64	220	902.82	5413.83	237.56	982.62	6373.25	233.33	923	6618.41	240
Winning bid	721.42	6467.31	178.51	804.7	5182.35	206.29	887.15	6121.14	203.4	832.5	6332.67	212.97
(Winning bid / Auction estimate)	0.83	0.25	0.81	0.88	0.28	0.88	0.89	0.29	0.9	0.9	0.32	0.91
Runner-up bid	826.3	7672.3	209.88	837.57	5279.28	213.21	911.32	6222.02	209.45	844.13	6361.98	214.59
(Runner-up bid - Winning bid)	104.88	1391.39	20.53	32.87	165.72	7.08	24.16	174.47	4.58	11.63	46.54	3.31
(Run.-up bid - Win. bid) /Runner-up bid	0.1389	0.1657	0.0994	0.0423	0.0289	0.0388	0.0262	0.0175	0.0241	0.018	0.0118	0.016
Number of bidders	4	2.01	3	4.31	2.19	4	4.38	2.24	4	4.43	2.26	4

Notes: All monetary values are in thousands of euro. VAT is excluded. We observe only auctions for which both the employee data & financial data is available.

Table A10: Auction distribution by geographic region of contracting authority

Geographic region of contracting authority	All auctions				Close auctions (Within 10%)				Close auctions (Within 6%)				Close auctions (Within 4%)			
	Auctions		Value		Auctions		Value		Auctions		Value		Auctions		Value	
	No.	Share	Sum	Share	No.	Share	Sum	Share	No.	Share	Sum	Share	No.	Share	Sum	Share
Dalmatia	380	0.13	247.95	0.12	212	0.15	132.84	0.11	133	0.13	97.94	0.11	94	0.13	38.75	0.06
City of Zagreb	1228	0.43	1243.96	0.6	582	0.41	722.54	0.63	401	0.4	563.86	0.64	298	0.4	408.31	0.67
Istria, Kvarner, Gorski Kotar & Lika	420	0.15	200.1	0.1	222	0.15	117.48	0.1	163	0.16	78.79	0.09	122	0.17	61.27	0.1
Central Croatia (w/o City of Zagreb)	434	0.15	191.82	0.09	221	0.15	84.83	0.07	152	0.15	63.04	0.07	117	0.16	40.92	0.07
Slavonia	396	0.14	178.62	0.09	199	0.14	97.99	0.08	145	0.15	78.3	0.09	106	0.14	64.42	0.1
Number of auctions	2859	1	2062.45	1	1436	1	1155.68	1	994	1	881.93	1	737	1	613.67	1

Notes: All monetary values are in millions of euro. VAT is excluded. We observe only auctions for which both the employee data & financial data is available.

Table A11: Comparison of winners, runner-ups & others before the auction results

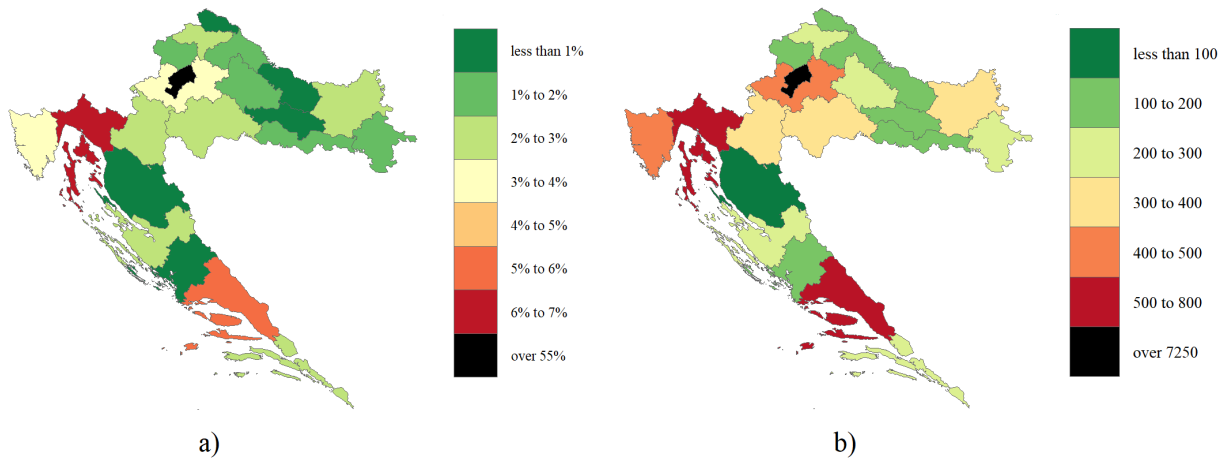| Category	Variable	Winners	Runners up	Diff. (3)-(4)	Ranks > 2	Diff. (3)-(6)	Ranks > 1	Diff. (3)-(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment	**Observations**	**2859**	**2859**		**4514**		**7373**	
	Employees	115.43	124.82	−9.39	125.19	−9.76	125.05	−9.62
	Employees, HE	18.23	19.22	−0.99	18.57	−0.34	18.82	−0.59
	Employees, LE	97.2	105.6	−8.4	106.62	−9.42	106.22	−9.03
	Hires	0.14	0.15	−0.01	0.16	−0.01	0.15	−0.01
	Fires	0.14	0.15	−0.01	0.15	−0.01	0.15	−0.01
	Tenure (in days)	1232.42	1246.32	−13.9	1169.29	63.13*	1199.14	33.28
	Employee age (in years)	35.15	35	0.15	35.18	−0.03	35.11	0.04
	Non-fixed term contracts (in %)	41.97	41.04	0.93	39.47	2.5***	40.08	1.89***
Projects	Backlog extensive	22.98	25.53	−2.55**	26.24	−3.26***	25.97	−2.98***
	Backlog intensive	12.67	13.39	−0.72	13.21	−0.54	13.28	−0.61
	Distance to contracting authority	68.45	77.17	−8.72**	72.28	−3.83	74.18	−5.73**
Political connections	Public firm	0.07	0.05	0.02**	0.04	0.03***	0.04	0.02***
	GONG/National match	0.17	0.15	0.01	0.15	0.02*	0.15	0.02*
	Regional match (in power)	0.24	0.22	0.02	0.2	0.04***	0.21	0.03**
	Local match (in power)	0.26	0.25	0.01	0.24	0.02	0.24	0.02
	Any match	0.47	0.47	0.01	0.46	0.01	0.46	0.01
	Any match (second order)	0.73	0.74	−0.01	0.73	0	0.74	0
	Donator	0.14	0.14	0	0.15	−0.01	0.15	−0.01
Balance sheet	Total assets	11.32	12.57	−1.24	11.98	−0.65	12.2	−0.88
	Current assets	5.73	5.85	−0.12	5.76	−0.03	5.79	−0.06
	Fixed assets	5.59	6.72	−1.13	6.22	−0.62	6.41	−0.82
	Total liabilities	5.17	6.1	−0.93	6.27	−1.1	6.2	−1.03
	Non-current liabilities	1.18	1.89	−0.7	1.88	−0.7	1.88	−0.7
Income statement	Revenue	12.17	12.29	−0.12	12.37	−0.21	12.34	−0.17
	EBITDA	1.17	1.09	0.08	0.96	0.21	1.01	0.16
	Profit	0.42	0.42	0	0.34	0.07	0.37	0.05
	Depreciation	0.51	0.43	0.08	0.36	0.15	0.39	0.12
	Interest paid	0.15	0.17	−0.02	0.18	−0.04	0.18	−0.03
	Wage costs	1.59	1.74	−0.15	1.7	−0.11	1.72	−0.12
	Productivity	0.11	0.12	−0.02	0.13	−0.02	0.12	−0.02*
Financial ratios	EBITDA over assets	0.13	0.12	0.01	0.12	0.01***	0.12	0.01**
	Profit over assets	0.06	0.05	0.01	0.05	0.01***	0.05	0.01*
	Debt ratio	0.55	0.63	−0.08	0.55	0	0.58	−0.03
	LR liabilities over assets	0.11	0.12	0	0.11	0	0.11	0
	Outsourcing over total expenses	0.3	0.31	0	0.32	−0.02***	0.32	−0.01**
	External labour over total labour costs	0.33	0.33	−0.01	0.36	−0.04***	0.35	−0.03***

Notes: The first row represents the data after we exclude any auction in which the winner/runner-up is a firm for which we do not have the necessary employment data. The second notion of observations is a subset of those auctions, the one for which we have data on other financial data. For an explanation of all the variables see Table A1. All monetary values are given in mil. Euro.

***, **, * Significant at the .1, 1, 5 percent level.

Table A12: Comparison of winners, runner-ups & others before the auction results - in close auctions (within 10%)

Category	Variable	Winners	Runners up	Diff. (3)-(4)	Ranks > 2	Diff. (3)-(6)	Ranks > 1	Diff. (3)-(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment	**Observations**	**1436**	**1436**		**2719**		**4155**	
	Employees	123.93	128.12	−4.19	123.28	0.65	124.95	−1.02
	Employees, HE	18.19	20.2	−2.01	18.84	−0.64	19.31	−1.12
	Employees, LE	105.74	107.91	−2.17	104.45	1.29	105.65	0.09
	Hires	0.16	0.16	0	0.16	0	0.16	0
	Fires	0.16	0.16	0	0.16	0	0.16	0
	Tenure (in days)	1279.07	1257.69	21.38	1203.43	75.64	1222.14	56.93
	Employee age (in years)	35.14	35.23	−0.09	35.33	−0.19	35.29	−0.15
	Non-fixed term contracts (in %)	39.15	40.07	−0.92	38.03	1.11	38.74	0.41
Projects	Backlog extensive	25.7	26.34	−0.64	27.75	−2.06	27.26	−1.57
	Backlog intensive	14.42	13.72	0.7	13.74	0.67	13.73	0.68
	Distance to contracting authority	69.58	73.65	−4.07	72.03	−2.46	72.59	−3.01
Political connections	Public firm	0.07	0.06	0.01	0.04	0.02**	0.05	0.02**
	GONG/National match	0.19	0.16	0.03	0.15	0.04**	0.16	0.03**
	Regional match (in power)	0.24	0.22	0.02	0.21	0.03*	0.21	0.03*
	Local match (in power)	0.26	0.25	0.01	0.26	0.01	0.26	0.01
	Any match	0.49	0.47	0.02	0.47	0.02	0.47	0.02
	Any match (second order)	0.75	0.73	0.02	0.74	0.01	0.74	0.01
	Donator	0.16	0.15	0.01	0.15	0.01	0.15	0.01
Balance sheet	**Observations**	**1399**	**1370**		**2639**		**4009**	
	Total assets	11.87	14.18	−2.31	11.43	0.44	12.37	−0.5
	Current assets	5.82	6.32	−0.49	5.88	−0.06	6.03	−0.21
	Fixed assets	6.05	7.86	−1.81	5.55	0.5	6.34	−0.29
	Total liabilities	5.87	6.71	−0.84	6.22	−0.35	6.39	−0.52
	Non-current liabilities	1.27	2.21	−0.94	1.73	−0.46	1.9	−0.62
Income statement	Revenue	13.19	12.49	0.7	12.6	0.58	12.56	0.62
	EBITDA	1.11	1.22	−0.11	0.92	0.18	1.02	0.08
	Profit	0.34	0.44	−0.1	0.31	0.03	0.36	−0.01
	Depreciation	0.51	0.5	0.01	0.35	0.15	0.4	0.11
	Interest paid	0.17	0.2	−0.03	0.19	−0.02	0.19	−0.02
	Wage costs	1.69	1.76	−0.07	1.64	0.05	1.68	0.01
	Productivity	0.11	0.13	−0.01	0.13	−0.01	0.13	−0.01
Financial ratios	EBITDA over assets	0.13	0.11	0.02	0.12	0.01***	0.11	0.01
	Profit over assets	0.05	0.04	0.01	0.05	0.01*	0.04	0.01
	Debt ratio	0.55	0.57	−0.02	0.55	0	0.56	−0.01
	Outsourcing over total expenses	0.31	0.3	0	0.32	−0.02**	0.31	−0.01
	External labour over total labour costs	0.33	0.32	0.01	0.36	−0.03**	0.35	−0.02

Notes: The first row represents the data after we exclude any auction in which the winner/runner-up is a firm for which we do not have the necessary employment data. The second notion of observations is a subset of those auctions, the one for which we have data on other financial data. For an explanation of all the variables see Table A1. All monetary values are given in mil. Euro.

***, **, * Significant at the .1, 1, 5 percent level.

Figure A2: Complaints by county

a)

■	less than 1%
■	1% to 2%
■	2% to 3%
■	3% to 4%
■	4% to 5%
■	5% to 6%
■	6% to 7%
■	over 55%

b)

■	less than 100
■	100 to 200
■	200 to 300
■	300 to 400
■	400 to 500
■	500 to 800
■	over 7250

Notes: the data encompasses the entire database of complaints. It shows the distribution of less than 16,089 complaints by county of the procuring entity (for which we have the data on their location). a) shows the % of complaints, b) shows the total number of complaints by county of procuring entity.

Table A13: Main regression estimates

	All	Within 10% (main)	Within 8%	Within 6%	Within 4%	4% to 0.5%
	(1)	(2)	(3)	(4)	(5)	(6)
-5	0.131 (0.649)	0.183 (0.551)	0.300 (0.571)	0.145 (0.636)	0.265 (0.733)	0.327 (0.798)
-4	0.206 (0.649)	0.390 (0.551)	0.488 (0.571)	0.379 (0.636)	0.533 (0.733)	0.638 (0.798)
-3	0.165 (0.649)	0.384 (0.551)	0.391 (0.571)	0.286 (0.636)	0.478 (0.733)	0.445 (0.798)
-2	0.325 (0.649)	0.678 (0.551)	0.695 (0.571)	0.515 (0.636)	0.780 (0.733)	0.551 (0.798)
-1	0.382 (0.649)	0.797 (0.551)	0.730 (0.571)	0.500 (0.636)	0.839 (0.733)	0.662 (0.798)
0	0.635 (0.649)	1.110** (0.551)	1.014* (0.571)	0.728 (0.636)	1.029 (0.733)	0.939 (0.798)
1	0.934 (0.649)	1.495*** (0.551)	1.421** (0.571)	1.056* (0.636)	1.135 (0.733)	1.065 (0.798)
2	1.170* (0.649)	1.602*** (0.551)	1.482*** (0.571)	1.183* (0.636)	1.168 (0.733)	1.105 (0.798)
3	1.716*** (0.649)	2.008*** (0.551)	1.853*** (0.571)	1.624** (0.636)	1.592** (0.733)	1.495* (0.798)
4	1.820*** (0.649)	2.236*** (0.551)	1.960*** (0.571)	1.801*** (0.636)	1.925*** (0.733)	1.875** (0.798)
5	1.794*** (0.649)	2.450*** (0.551)	2.180*** (0.571)	1.947*** (0.636)	2.064*** (0.733)	2.167*** (0.798)
Won (dummy)	−0.336 (0.463)	−0.272 (0.395)	−0.161 (0.410)	0.017 (0.458)	−0.238 (0.531)	−0.082 (0.579)
Log. of employees	−19.073*** (0.470)	−20.258*** (0.451)	−17.254*** (0.460)	−15.041*** (0.491)	−13.078*** (0.553)	−14.506*** (0.651)
Mean employees	119.4382	124.2338	120.9359	122.4989	123.4156	122.0153
N	62.544	31.872	27.720	21.912	16.140	13.332
R^2	0.294	0.394	0.396	0.432	0.466	0.497
Adjusted R^2	0.283	0.381	0.382	0.416	0.449	0.480
Residual Std. Error	16.555 (df = 61638)	10.037 (df = 31207)	9.694 (df = 27094)	9.603 (df = 21346)	9.507 (df = 15657)	9.398 (df = 12897)

Notes: Column (1) shows the estimates for the full sample. Other columns - subsamples of close auctions are constructed according to the win margin. The win margin of 10%, 8%, 6%, 4% and 4% to 0.5% based on the win margin definition (see method).

The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 6). The model is estimated with the equation (1). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight.

*** , ** , * Significant at the 1, 5, 10 percent level.

Table A14: Robustness checks

	Main	No CPVs with most comp.	No region with most comp.	No pol. connections	No pol. conn. (robust surnames)	No pol. donators	No suspicious firms
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
-5	0.183	0.672	0.214	0.057	0.088	0.132	0.285
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
-4	0.390	0.998	0.508	0.068	0.133	0.324	0.529
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
-3	0.384	0.967	0.436	0.054	0.123	0.309	0.451
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
-2	0.678	1.230	0.777	0.251	0.295	0.606	0.702
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
-1	0.797	1.380	0.848	0.246	0.279	0.727	0.778
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
0	1.110**	1.961*	1.108*	0.558	0.552	1.044**	1.038*
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
1	1.495***	2.286**	1.523**	0.798*	0.758*	1.433***	1.288**
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
2	1.602***	2.651**	1.554**	0.903**	0.799**	1.542***	1.295**
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
3	2.008***	3.605***	1.754***	1.270***	1.101***	1.845***	1.708***
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
4	2.236***	3.664***	2.017***	1.394***	1.238***	2.023***	1.888***
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
5	2.450***	4.049***	2.131***	1.467***	1.295***	2.164***	1.953***
	(0.551)	(1.128)	(0.626)	(0.440)	(0.390)	(0.525)	(0.563)
Won (dummy)	−0.272	−0.675	−0.108	−0.205	−0.202	−0.241	−0.286
	(0.395)	(0.829)	(0.453)	(0.317)	(0.281)	(0.377)	(0.404)
Log. of employees	−20.258***	−45.128***	−18.127***	−9.368***	−9.588***	−16.298***	−36.388***
	(0.451)	(1.435)	(0.479)	(0.301)	(0.403)	(0.403)	(0.626)
Mean employees	124.2338	116.0818	122.621	63.4487	61.3261	104.6671	129.7528
N	31.872	7.776	23.364	16.740	18.768	26.964	29.856
R²	0.394	0.556	0.368	0.355	0.353	0.405	0.421
Adjusted R²	0.381	0.536	0.353	0.338	0.336	0.391	0.409
Residual Std. Error	10.037 (df = 31207)	0.153 (df = 7441)	9.765 (df = 22810)	5.805 (df = 16315)	5.457 (df = 18307)	8.793 (df = 26352)	9.932 (df = 29253)

Notes: Column (1) shows the estimates for the full sample. Columns (2) and (3) show estimates without frequent complaints. The top 5 CPV 4-digit codes with most complaints are 4523, 4521, 4545, 4500 and 4526, which are excluded from the regression in column (2), and the county with most complaints is the City of Zagreb, which we exclude and show the estimates in column (3). Column (4) uses only the firms which are not in any way politically connected (first-order). Column (5) excludes firms which donated to any political party. Column (6) excludes any suspicious firm (see Table A4).

The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 6). The model is estimated with the equation (1). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight.
           ***, **, * Significant at the 1, 5, 10 percent level.

Table A15: Complaints – occurrence and distribution

	Complaint distribution			Complaint distribution		CPV's within our database	
Procuring entity	No.	Share	4 digit CPV code	No.	Share	No.	Share
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Grad Zagreb	615	0.04	4523	662	0.32	1314	0.4
Hrvatske ceste d.o.o.	408	0.03	4521	205	0.1	422	0.13
HAC d.o.o.	347	0.02	4545	137	0.07	304	0.09
ZG holding d.o.o.	320	0.02	4500	257	0.12	209	0.06
Hrvatske vode	317	0.02	4526	104	0.05	198	0.06
HEP-ODS d.o.o.	284	0.02	4524	137	0.07	143	0.04
HŽ-Infrast. d.o.o.	257	0.02	4531	115	0.06	120	0.04
Hrvatske šume d.o.o.	252	0.02	4522	97	0.05	121	0.04
KBC Zagreb	243	0.02	4520	48	0.02	98	0.03
HP d.d.	235	0.01	4511	74	0.04	82	0.03
In top 10	3278	0.22	In top 10	1836	0.89	3011	0.92
Total	16089	1	Total	2063	1	3257	1

Notes: The table shows the top 10 procuring entities that received the most complaints, as well as the top 10 4 digit CPV codes with the most complaints. (5) & (6) show the occurrence of complaints through the 4 digit CPV codes. (7) & (8) show the CPV distribution through our non-filtered database of auctions. CPV's are ordered by column (8).

Table A16: Overview of all donations to political parties

	Donations							
	To all parties	To ruling parties	No. per party	Val. per party	No. per donator	Val. per donator	No. per donator (in sample)	Val. per donator (in sample)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sum	2937695.86	1931103.91	3957	2937695.86	3957	2922167.79	108	341382.59
Mean	742.4	921.33	63.82	47382.19	1.16	860.22	1.57	4947.57
Std. dev.	1522.58	1868.65	269.59	246989.47	0.43	2097.49	0.88	7459.83
10th	26.67	66.67	1	340	1	26.67	1	400
50th	266.67	266.67	6.5	1897.53	1	266.67	1	1733.33
90th	1992	2400	98.2	44251.93	2	2242.67	3	14133.33
Max	26666.67	26666.67	2095	1929770.58	4	53333.33	4	34786.67
Obs.	3957	2091	62	62	3397	3397	69	69

Notes: The first column (1) shows info on all 3957 donations to any party preceding the parliamentary elections in 2016 & those in 2017, while the second (2) shows donations to the ruling party after the election (HDZ). (3) & (4) examine donations by the party which they target. (5) & (6) do the same but instead by the donation origin (560 donations had no identification number connected to them but none of them was donations by firms, those are excluded, hence the lower observation number). (7) & (8) look at only the donations given by construction firms within our sample of PPC's. All monetary values are in euro.

Table A17: Political connections

| | GONG/Nat. conn. | Last name match | | | | Dummies | |
| | | Reg. conn. (out of power) | Reg. conn. (in power) | Loc. conn. (out of power) | Loc. conn. (in power) | Any | Any (second order) |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sum	141	166	179	202	195	373	675
Mean	0.13	0.16	0.17	0.19	0.19	0.35	0.64
Std. dev.	0.34	0.37	0.38	0.39	0.39	0.48	0.48
Obs.	1071	1071	1071	1071	1071	1071	1071

Notes: The first 5 columns show statistics for any connection to politicians using a dummy of 1 for a full name match or a last name match. (6) & (7) give an overview of all political connections anytime, and to politicians in power in 2013– (overlap is accounted for). A more detailed explanation of the variables: Table A2.

Table A18: Auction criteria characteristics

| Sample | Variable | Sum | Mean | Std. dev. | 10th | 50th | 90th | Obs. | Raw obs. |
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Winning bid	2062.55	0.72	6.47	0.06	0.18	0.88	2859	3257
LP & MEAT	Bid of runner-up	2362.39	0.83	7.67	0.07	0.21	1.01	2859	3257
	Est. value	2310.79	0.81	5.96	0.08	0.22	1.07	2859	3257
	No. of bids	10232	4	2.01	2	3	7	10232	11873
	Winning bid	1276.89	0.73	4.8	0.06	0.18	0.95	1758	1983
LP	Bid of runner-up	1368.14	0.78	4.94	0.07	0.2	1.01	1758	1983
	Est. value	1163.28	0.83	5.02	0.08	0.21	1.07	1758	1983
	No. of bids	6739	4.16	2.14	2	4	7	6739	7743
	Winning bid	785.66	0.71	8.48	0.05	0.18	0.79	1101	1274
MEAT	Bid of runner-up	994.25	0.9	10.68	0.07	0.24	1.01	1101	1274
	Est. value	856.69	0.78	7.21	0.08	0.24	1	1101	1274
	No. of bids	3493	3.74	1.76	2	3	6	3493	4130

Notes: The table shows auction data characteristics across auctions awarded via LP & MEAT, separately & when grouped together, after the further exclusion. The last two columns show the observations, the last column shows the observations before the exclusion of the bids for which we do not have the necessary financial & employment data for the analysis, the Obs. column shows the observations after the exclusion. All monetary values are in mil. Euro. VAT is not included.

Table A19: MEAT criteria distribution

| Price crit. | No. | Share | Cost crit. | No. | Share | Quality crit. | No. | Share | Other crit. | No. | Share |
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
90	619	0.61	more than 30	7	0.01	more than 30	30	0.03	more than 10	3	0.00
80 to 89	285	0.28	11 to 30	90	0.09	11 to 30	281	0.28	10	2	0.00
70 to 79	71	0.07	10	91	0.09	10	551	0.54	5	1	0.00
less than 70	46	0.05	0 to 9	833	0.82	0 to 9	159	0.16	0	1015	0.99

Notes: The table shows MEAT criteria distribution of auctions for which we have the criteria data. The observed dataset contains 3493 bids across 1101 auctions which were awarded via the MEAT criteria. Of those 1101 auctions, we have the criteria data for 1021 of them, for which the distribution is shown above.

Table A20: The impact of PPC on Firms' Employment: LP and MEAT samples

	Entire sample		LP sample		MEAT sample	
	All	Within 10%	All	Within 10%	All	Within 10%
	(1)	(2)	(3)	(4)	(5)	(6)
-5	0.131	0.183	0.134	0.262	0.126	−0.220
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
-4	0.206	0.390	0.189	0.425	0.231	0.208
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
-3	0.165	0.384	0.087	0.390	0.283	0.348
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
-2	0.325	0.678	0.472	0.754	0.101	0.283
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
-1	0.382	0.797	0.648	0.902	−0.022	0.245
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
0	0.635	1.110**	0.907*	1.247**	0.219	0.394
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
1	0.934	1.495***	1.251***	1.509***	0.450	1.402
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
2	1.170*	1.602***	1.391***	1.517***	0.831	2.014
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
3	1.716***	2.008***	1.626***	1.884***	1.841	2.608**
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
4	1.820***	2.236***	1.606***	2.028***	2.132	3.264**
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
5	1.794***	2.450***	1.618***	2.219***	2.046	3.593***
	(0.649)	(0.551)	(0.474)	(0.557)	(1.406)	(1.282)
Won (dummy)	−0.336	−0.272	−0.469	−0.681*	−0.231	−0.677
	(0.463)	(0.395)	(0.339)	(0.399)	(1.015)	(0.967)
Log. of employees	−19.073***	−20.258***	−44.876***	−44.117***	−16.392***	−16.873***
	(0.470)	(0.451)	(0.580)	(0.727)	(0.999)	(0.766)
Mean employees	119.4382	124.2338	122.5497	126.6245	114.3798	110.2171
N	62.544	31.872	38.724	27.228	23.820	4.644
R²	0.294	0.394	0.458	0.476	0.305	0.497
Adjusted R²	0.283	0.381	0.448	0.464	0.287	0.469
Residual Std. Error	16.555 (df = 61638)	10.037 (df = 31207)	9.521 (df = 38028)	9.378 (df = 26639)	22.149 (df = 23205)	8.914 (df = 4396)

Notes: The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 6). The model is estimated with the equation (1). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight.

*** , ** , * Significant at the 1, 5, 10 percent level.

Table A21: Effect of winning a close auction on future auction victories

	Within 30 days		Within 90 days		Within 180 days		Within 270 days		Within 360 days	
	Multiple bid	Single bid	Multiple bid	Single bid	Multiple bid	Single bid	Multiple bid	Single bid	Multiple bid	Single bid
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Close winner (within 10%)	−0.023 (0.037)	0.006 (0.016)	−0.179*** (0.063)	0.005 (0.030)	−0.278*** (0.085)	0.029 (0.038)	−0.401*** (0.102)	0.014 (0.045)	−0.421*** (0.119)	0.016 (0.051)
N	2.674	2.674	2.674	2.674	2.674	2.674	2.674	2.674	2.674	2.674
R^2	0.312	0.306	0.506	0.423	0.656	0.615	0.726	0.678	0.757	0.722
Adjusted R^2	0.095	0.087	0.350	0.240	0.548	0.493	0.639	0.576	0.681	0.634
Residual Std. Error (df = 2032)	0.817	0.365	1.419	0.669	1.898	0.839	2.280	1.011	2.668	1.150

Notes: The dependent variable is the number of awarded PPC in a given period following a close auction victory. It is split by single- and multiple-bidder auctions & by 5 time-periods. Its independent variable is a dummy (which is equal to 1 if the bidder is a victor only in a close auction, and 0 if the bidder is a runner-up in a close auction). The control variable is unique firm ids (OIB).

***, **, * Significant at the 1, 5, 10 percent level.

Table A22: Effect of winning a close auction on future PPC awarded (natural log) value

	Within 30 days		Within 90 days		Within 180 days		Within 270 days		Within 360 days	
	Multiple bid	Single bid	Multiple bid	Single bid	Multiple bid	Single bid	Multiple bid	Single bid	Multiple bid	Single bid
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Close winner (within 10%)	−0.437 (0.286)	0.116 (0.179)	−0.803*** (0.282)	0.056 (0.238)	−0.644*** (0.247)	0.295 (0.240)	−0.942*** (0.218)	0.219 (0.241)	−0.961*** (0.199)	0.011 (0.235)
N	2.674	2.674	2.674	2.674	2.674	2.674	2.674	2.674	2.674	2.674
R^2	0.304	0.296	0.485	0.420	0.594	0.562	0.659	0.601	0.688	0.647
Adjusted R^2	0.085	0.074	0.322	0.237	0.466	0.424	0.552	0.476	0.589	0.535
Residual Std. Error (df = 2032)	6.397	3.991	6.302	5.328	5.530	5.362	4.872	5.393	4.446	5.264

Notes: The dependent variable is the natural log value of awarded PPC in a given period following a close auction victory. It is split by single- and multiple-bidder auctions & by 5 time-periods. Its independent variable is a dummy (which is equal to 1 if the bidder is a victor only in a close auction, and 0 if the bidder is a runner-up in a close auction). The control variable is unique firm ids (OIB).

***, **, * Significant at the 1, 5, 10 percent level.

Table A23: Contamination of evaluation period and seasonality

	Main (within 10%)	In-season	Off-season	One auction victors	+ window	+ month
	(1)	(2)	(3)	(4)	(5)	(6)
-5	0.183 (0.551)	0.241 (0.629)	0.075 (0.915)	−0.466 (0.853)	0.183 (0.487)	0.183 (0.549)
-4	0.390 (0.551)	0.613 (0.629)	−0.005 (0.915)	−0.428 (0.853)	0.390 (0.487)	0.390 (0.549)
-3	0.384 (0.551)	0.528 (0.629)	−0.024 (0.915)	−0.383 (0.853)	0.384 (0.487)	0.384 (0.549)
-2	0.678 (0.551)	0.647 (0.629)	0.157 (0.915)	−0.048 (0.853)	0.678 (0.487)	0.678 (0.549)
-1	0.797 (0.551)	0.655 (0.629)	0.240 (0.915)	0.067 (0.853)	0.797 (0.487)	0.797 (0.549)
0	1.110** (0.551)	1.047* (0.629)	0.420 (0.915)	0.558 (0.853)	1.110** (0.487)	1.110** (0.549)
1	1.495*** (0.551)	1.362** (0.629)	0.710 (0.915)	1.147 (0.853)	1.495*** (0.487)	1.495*** (0.549)
2	1.602*** (0.551)	1.302** (0.629)	1.100 (0.915)	1.486* (0.853)	1.602*** (0.487)	1.602*** (0.549)
3	2.008*** (0.551)	1.477** (0.629)	1.837** (0.915)	1.825** (0.853)	2.008*** (0.487)	2.008*** (0.549)
4	2.236*** (0.551)	1.645*** (0.629)	1.906** (0.915)	1.986** (0.853)	2.236*** (0.487)	2.236*** (0.549)
5	2.450*** (0.551)	1.610** (0.629)	1.884** (0.915)	2.860*** (0.853)	2.450*** (0.487)	2.450*** (0.549)
Won (dummy)	−0.272 (0.395)	−0.296 (0.453)	−0.221 (0.656)	−1.608** (0.653)	−0.353 (0.375)	−0.273 (0.394)
Log. of employees	−20.258*** (0.451)	−16.182*** (0.484)	−18.422*** (0.697)	−7.574*** (0.492)	−17.242*** (0.507)	−20.225*** (0.451)
Mean employees	124.2338	123.1657	117.4026	85.7815	124.2338	124.2338
N	31.872	22.092	40.452	7.524	31.872	31.872
R^2	0.394	0.456	0.295	0.495	0.545	0.398
Adjusted R^2	0.381	0.443	0.281	0.463	0.516	0.385
Residual Std. Error	10.037 (df = 31207)	9.547 (df = 21548)	18.776 (df = 39671)	7.555 (df = 7082)	8.869 (df = 30008)	10.002 (df = 31196)

Notes: Columns (2) and (3) split the sample in 2 parts, column (2) contains each auction awarded from April to (including) October. Column (4) examines the effect on the victors whose only winning bid during the next 3 months is from the observed auction. Final two columns include the value a bidder won during the next 3 months (in column (5)), and month in which the auction was awarded (column (6)) as additional control variables.

The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 6). The model is estimated with the equation (1). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight.

*** , ** , * Significant at the 1, 5, 10 percent level.

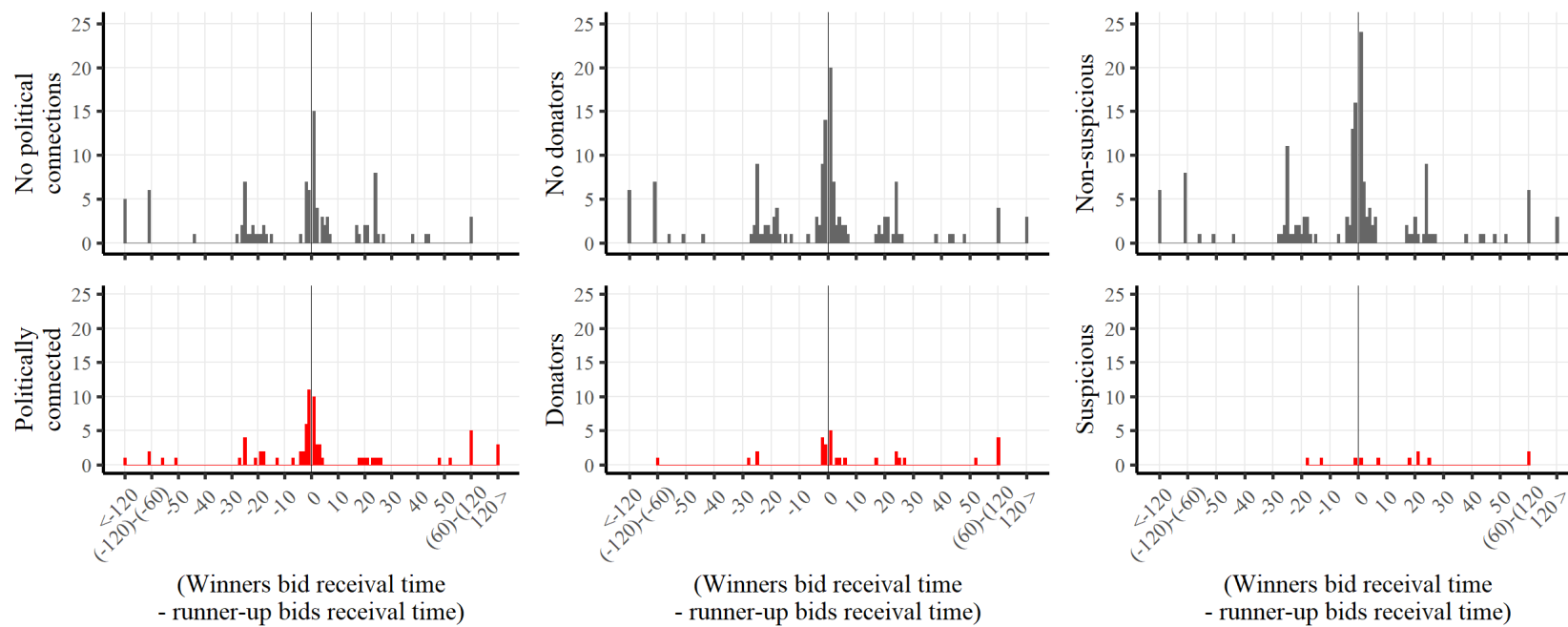Figure A3: Histograms for winner distribution by timing (in minutes)

(Winners bid receival time
- runner-up bids receival time)

(Winners bid receival time
- runner-up bids receival time)

(Winners bid receival time
- runner-up bids receival time)

Figure A4: Histograms for timing by political connection distribution by auctions size (in minutes)

Small auctions (below $\sim 2mil.euro$)　　　　Large auctions (over $\sim 2mil.euro$)

(Winners bid receival time
- runner-up bids receival time)

(Winners bid receival time
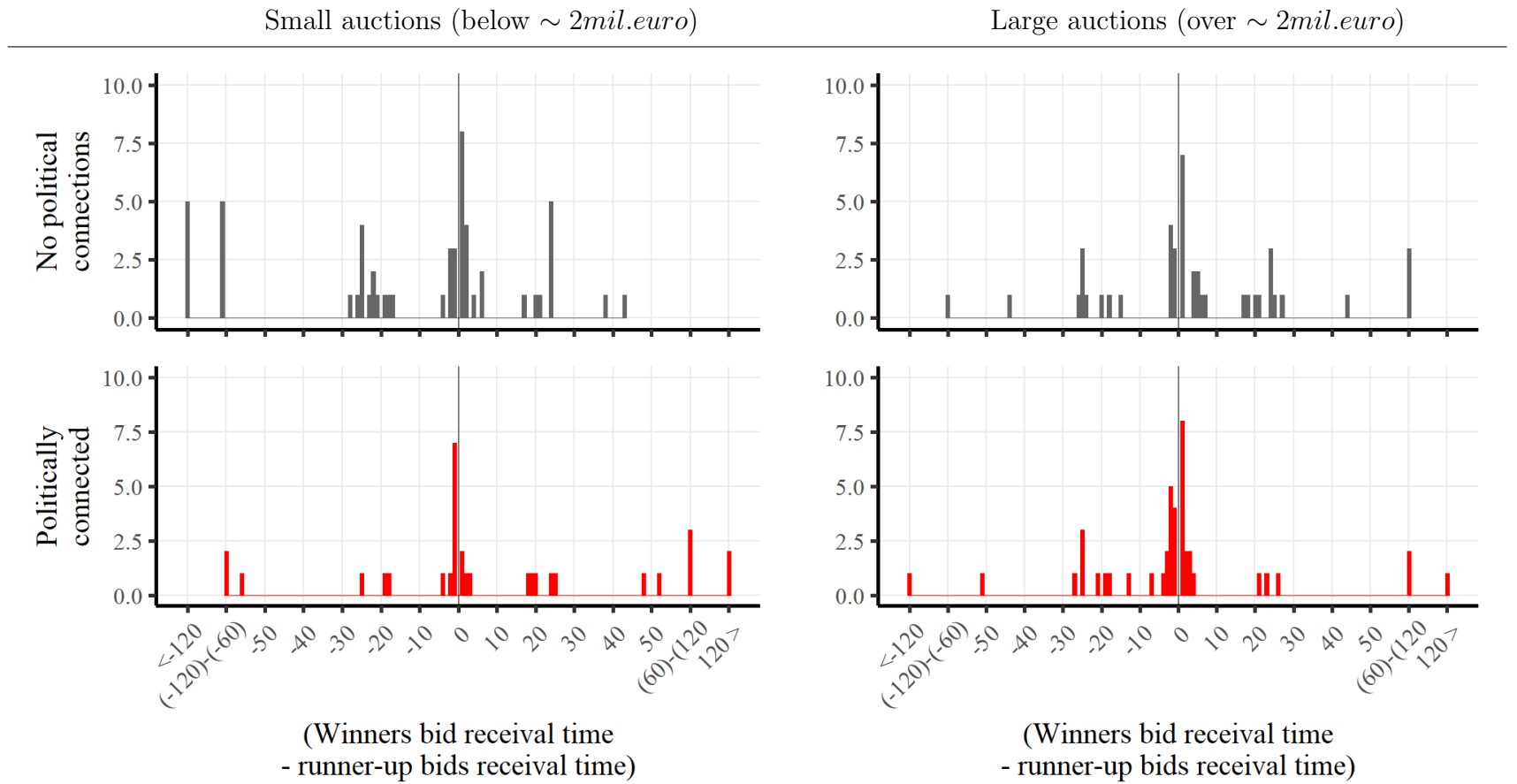- runner-up bids receival time)

Table A24: Bidder distribution in 171 auctions examined in timing

		Pol. conn. count	Pol. conn. share	Donators count	Donators share	Sus. firms count	Sus. firms share
Winners	Dummy = 0	96	0.56	142	0.83	160	0.94
	Dummy = 1	75	0.44	29	0.17	11	0.06
	No dummy	171	1	171	1	171	1
Runner-ups	Dummy = 0	18	0.11	153	0.89	171	1.00
	Dummy = 1	153	0.89	18	0.11	0	0.00
	No dummy	171	1	171	1	171	1
Both	Dummy = 0	114	0.33	295	0.86	331	0.97
	Dummy = 1	228	0.67	47	0.14	11	0.03
	No dummy	342	1	342	1	342	1

Notes: The dummy is auction specific, and equal to 1 if the winning bid was received before the runner-ups, 0 otherwise.

Table A25: Bid timing

		Time difference (in minutes)		
	Dummy	Total	Dummy = 0	Dummy = 1
Min.	0.00	-287.57	0.02	-287.57
1st Qu.	0.00	-17.71	0.84	-24.00
Median	0.00	0.02	5.67	-17.94
3rd Qu.	1.00	5.67	24.00	-1.17
Max.	1.00	432.00	432.00	0.00
Mean	0.50	-2.59	27.47	-33.00

Notes: The table shows the bid timing data on a sample of close bids for which the exact receival time of each bid was available. We examine 268 auctions in 2018, of which the bid timing data was available for 171 (63.81%). The dummy is auction specific, and equal to 1 if the winning bid was received before the runner-ups, 0 otherwise. The time difference represents the time difference between the receival time of the winning bid & the receival time of the runner-up bid (which is negative if the winning bid was received first).

Table A26: Long-term effects on employment

	Main (within 10%)	Within 8%	Within 6%	Within 4%	4% to 0.5%
	(1)	(2)	(3)	(4)	(5)
-5	0.181	0.297	0.141	0.260	0.321
-4	0.397	0.495	0.387	0.547	0.654
-3	0.409	0.417	0.319	0.527	0.502
-2	0.709	0.728	0.556	0.840	0.620
-1	0.829	0.764	0.541	0.901	0.735
0	1.139	1.044	0.763	1.085	1.004
1	1.525*	1.452*	1.093	1.192	1.131
2	1.624*	1.502*	1.206	1.209	1.151
3	2.023**	1.866**	1.639*	1.620	1.526
4	2.241**	1.962**	1.801*	1.936*	1.884*
5	2.450***	2.175**	1.939**	2.063**	2.163**
6	2.384***	2.186**	1.909**	2.093**	2.148*
7	2.229**	2.020**	1.805*	2.164**	2.162**
8	1.952**	1.751**	1.614*	2.048**	1.923*
9	1.930**	1.635*	1.598*	1.877*	1.698
10	2.037**	1.487*	1.408	1.662	1.403
11	2.143**	1.482*	1.393	1.672	1.165
12	1.786**	1.111	1.004	1.409	0.747
13	1.828**	1.087	1.033	1.378	0.699
14	1.924**	1.041	0.911	1.410	0.827
15	1.998**	1.168	1.085	1.489	0.743
16	1.813**	0.906	0.820	1.248	0.430
17	1.592*	0.602	0.438	0.706	-0.168
18	1.694*	0.536	0.567	1.027	0.290
19	1.509*	0.361	0.646	1.079	0.382
20	1.119	-0.109	0.386	0.781	0.175
Won (dummy)	-0.171	-0.076	-0.004	-0.311	0.175
	(0.632)	(0.622)	(0.661)	(0.734)	(0.787)
Log. of employees	-36.671^{***}	-59.994^{***}	-60.187^{***}	-56.725^{***}	-59.739^{***}
	(0.485)	(0.661)	(0.702)	(0.808)	(0.897)
Mean employees	124.3356	121.0558	122.6488	123.6177	122.2624
N	71.766	62.100	49.113	36.207	29.943
R^2	0.447	0.483	0.507	0.536	0.569
Adjusted R^2	0.441	0.477	0.501	0.529	0.562
Residual Std. Error	16.198 (df = 71071)	14.810 (df = 61453)	13.974 (df = 48525)	13.298 (df = 35699)	12.955 (df = 29481)

Notes: The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 20). The model is estimated with the equation (2). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight.

*** , ** , * Significant at the 1, 5, 10 percent level.

Table A27: Effects of winning a PPC on market and public revenue: close auction sample

	Period t - 1		Period t		Period t + 1	
	Public revenue	Market revenue	Public revenue	Market revenue	Public revenue	Market revenue
	(1)	(2)	(3)	(4)	(5)	(6)
PPC win	−0.087	0.021	0.543***	−0.057***	−0.277**	0.006
	(0.091)	(0.015)	(0.074)	(0.012)	(0.115)	(0.009)
N	3.118	2.659	3.118	2.778	3.118	1.507
R^2	0.919	0.973	0.917	0.980	0.878	0.996
Adjusted R^2	0.888	0.961	0.884	0.972	0.830	0.993
Residual Std. Error	2.091 (df = 2239)	0.311 (df = 1855)	1.703 (df = 2239)	0.267 (df = 1966)	2.650 (df = 2239)	0.136 (df = 904)

Notes: OLS models on the subsample of close auction within 10% win margin. Both dependent variables, the public revenue and the market revenue are in natural logs. Main independent variable is a dummy indicating whether a firm is winner or runner-up in an auction. Period t-1 is the accounting year before the year of auction result, t is year of auction result, and t+1 year after. Unit of observation is firm-auction. All models include firm fixed effects and a control variable for firm size (number of employees).

*** , ** , * Significant at the 1, 5, 10 percent level.

Table A28: Effects of winning a PPC on growth in market and public revenue: close auction sample

	Period (t) - period (t - 1)		Period (t + 1) - period (t - 1)	
	Public revenue	Market revenue	Public revenue	Market revenue
	(1)	(2)	(3)	(4)
PPC win	0.630***	−0.071***	−0.190	−0.014
	(0.129)	(0.023)	(0.163)	(0.014)
N	3.118	2.468	3.118	1.427
R^2	0.808	0.789	0.763	0.967
Adjusted R^2	0.732	0.695	0.670	0.945
Residual Std. Error	2.968 (df = 2239)	0.456 (df = 1709)	3.751 (df = 2239)	0.189 (df = 851)

Notes: OLS models on the subsample of close auction within 10% win margin. Both dependent variables, the public revenue and the market revenue are calculated as the difference in natural logs between periods t and t-1 and t+1 and t-1. Period t-1 is the accounting year before the year of auction result, t is year of auction result, and t+1 year after. Unit of observation is firm-auction. Main independent variable is a dummy indicating whether a firm is winner or runner-up in an auction. All models include firm fixed effects and a control variable for firm size (number of employees).

*** , ** , * Significant at the 1, 5, 10 percent level.

Figure A5: PPC value won vs. market value acquired

a)

b)

Notes: the X-axis represents the "win margin" of a bid, it is essentially the criteria we use for defining "closeness" in an auction (see method), only we multiply it by -1 if the bid is a losing one. The Y-axis represents the natural log of the total procurement value won by a firm, graph a), and on graph b) the natural log of the firms revenue in the examined year. Points represent bins which are formed according to the win margin (sizes of 0.0025).

Table A29: The Impact of PPC on Firms' Employment by PPC size

	Main	Below 100,000 €	100,000 to 500,000 €	500,000 to 1,500,000 €	Above 1,500,000 €
	(1)	(2)	(3)	(4)	(5)
-5	0.183	0.333	0.191	0.172	−0.328
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
-4	0.390	0.194	0.684	−0.304	−0.350
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
-3	0.384	0.259	0.582	−0.061	0.212
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
-2	0.678	0.929	0.703	0.415	0.704
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
-1	0.797	1.017	0.715	0.760	1.589
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
0	1.110**	0.896	0.991	1.449	2.376
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
1	1.495***	1.003	1.364**	1.997*	3.218
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
2	1.602***	0.664	1.493**	2.366**	3.876
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
3	2.008***	0.854	1.988***	2.481**	4.336
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
4	2.236***	0.473	2.323***	2.801**	4.804*
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
5	2.450***	0.360	2.433***	2.791**	7.355***
	(0.551)	(1.043)	(0.640)	(1.168)	(2.720)
Won (dummy)	−0.272	0.616	−0.372	0.018	−2.606
	(0.395)	(0.785)	(0.462)	(0.852)	(2.007)
Log. of employees	−20.258***	−37.265***	−13.381***	−39.694***	−50.210***
	(0.451)	(1.625)	(0.455)	(1.603)	(3.319)
Mean employees	124.2338	93.2281	107.1458	147.6345	208.8068
N	31.872	4.104	18.276	6.600	3.540
R^2	0.394	0.568	0.423	0.505	0.465
Adjusted R^2	0.381	0.541	0.406	0.484	0.439
Residual Std. Error	10.037 (df = 31207)	6.817 (df = 3866)	8.825 (df = 17763)	9.686 (df = 6330)	16.518 (df = 3377)

Notes: Column (1) shows the estimates for the main sample of auctions within 10%. Columns 2-5 show results for PPC auctions depending on the estimated PPC value and pre-defined dosages.

The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 20). The model is estimated with the equation (2). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight.

***, **, * Significant at the 1, 5, 10 percent level.

Table A30: Various effects on employment

| | Main | Outsourcing share (split by median) | | External labour over total labour costs (split by median) | |
| | | (below 31.3%) | (above 31.3%) | (below 38.3%) | (above 38.3%) |
	(1)	(2)	(3)	(4)	(5)
-5	0.183	0.093	0.208	0.122	0.157
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
-4	0.390	0.278	0.259	0.278	0.238
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
-3	0.384	0.294	0.073	0.270	0.076
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
-2	0.678	0.551	0.320	0.426	0.477
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
-1	0.797	0.752	0.205	0.608	0.365
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
0	1.110**	1.175**	0.013	1.014*	0.131
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
1	1.495***	1.537***	0.036	1.341**	0.167
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
2	1.602***	1.562***	0.183	1.630***	−0.135
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
3	2.008***	1.919***	0.682	2.058***	0.220
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
4	2.236***	2.193***	0.796	2.168***	0.569
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
5	2.450***	2.470***	0.603	2.066***	0.973
	(0.551)	(0.558)	(0.872)	(0.564)	(0.837)
Won (dummy)	−0.272	−0.655	0.571	−0.591	0.302
	(0.395)	(0.403)	(0.622)	(0.409)	(0.597)
Log. of employees	−20.258***	−33.198***	−40.340***	−38.964***	−30.700***
	(0.451)	(0.784)	(0.921)	(0.664)	(0.986)
Mean employees	124.2338	100.0533	137.7475	92.9547	145.9471
N	31.872	15.768	14.640	15.888	14.508
R²	0.394	0.508	0.395	0.518	0.349
Adjusted R²	0.381	0.493	0.384	0.503	0.339
Residual Std. Error	10.037 (df = 31207)	7.149 (df = 15313)	10.763 (df = 14368)	7.259 (df = 15420)	10.289 (df = 14275)

Notes: The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 20). The model is estimated with the equation (2). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight

***, **, * Significant at the 1, 5, 10 percent level.

Table A31: Heterogeneous effects - firms' costs for agency workers as share of total labour costs

	Within 10% (main)	1st bin (0%)	2nd bin (1% - 28%)	3rd bin (29% - 47%)	4th bin (48% - 65%)	5th bin (66% +)
	(1)	(2)	(3)	(4)	(5)	(6)
-5	0.183	0.382	0.301	−0.145	−0.495	0.659
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
-4	0.390	0.438	0.693	0.116	−0.768	0.915
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
-3	0.384	0.063	1.102	−0.034	−0.513	0.397
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
-2	0.678	0.957	1.153	−0.186	−0.009	0.362
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
-1	0.797	1.805	1.044	−0.260	0.084	−0.067
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
0	1.110**	2.367*	1.654	−0.075	−0.390	−0.101
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
1	1.495***	2.623**	2.256**	0.035	−0.303	0.008
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
2	1.602***	3.051**	2.843***	−0.622	−0.191	−0.162
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
3	2.008***	3.819***	3.640***	−0.981	0.571	−0.019
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
4	2.236***	4.127***	3.621***	−1.101	0.807	0.740
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
5	2.450***	3.856***	3.142***	−0.322	0.768	1.346
	(0.551)	(1.313)	(1.093)	(0.932)	(1.079)	(1.231)
Won (dummy)	−0.272	−1.227	−1.218	−0.077	0.040	0.391
	(0.395)	(0.955)	(0.796)	(0.668)	(0.772)	(0.879)
Log. of employees	−20.258***	−49.823***	−61.618***	−39.603***	−36.372***	−20.223***
	(0.451)	(1.306)	(2.430)	(1.481)	(1.406)	(1.464)
Mean employees	124.2338	45.0804	127.7355	142.9283	113.1478	174.929
N	31.872	6.720	6.396	5.856	5.844	5.580
R^2	0.394	0.486	0.594	0.427	0.404	0.359
Adjusted R^2	0.381	0.468	0.579	0.412	0.390	0.345
Residual Std. Error	10.037 (df = 31207)	10.987 (df = 6490)	8.921 (df = 6165)	7.277 (df = 5709)	8.415 (df = 5708)	9.382 (df = 5461)

Notes: We split the data into 5 similarly sized samples according to the bidders share of costs for agency workers in the total labour costs.

The dependent variable is employment growth at firm-auction level in each fortnight period (from -6 to 20). The model is estimated with the equation (2). The independent variables are the fortnight periods, the 'Won (dummy)' for auction winner, 'Log. of employees' is the natural log of the firms' number of employees -6 fortnights before the auction and firm specific fixed effects are included. The estimates are calculated using the package ('lfe', Gaure, 2013) and show the LATE, difference in employment growth rates between winners and runner-ups in close auction sample. The point estimates and standard errors are transformed to absolute employment increase based on the coefficients and the mean number of employees (given in 'Mean employees') at the beginning of the -6th fortnight.

***, **, * Significant at the 1, 5, 10 percent level.

Table A32: Characteristics of winners' new employees: education level, sources of previous employment and mean age

Education level	Previous employment	No. of new employees	Mean employee age
Higher Educated	Different firm	240	38.56
	No previous employment	538	32.89
	Same firm	488	35.80
	Total	1266	35.08
Lower Educated	Different firm	1332	38.49
	No previous employment	3976	34.62
	Same firm	4711	38.65
	Total	10019	37.03
Any education level	Different firm	1572	38.50
	No previous employment	4514	34.41
	Same firm	5199	38.38
	Total	11285	36.81

Table A33: The sector where the winners' unique new employees were previously employed: subsample of employees coming from different firm

Sector of previous employment	No. of new employees
F - Construction	1145
C - Manufacturing	146
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	110
M - Professional, scientific and technical activities	55
N - Administrative and support service activities	40
H - Transportation and storage	27
E - Water supply, sewerage, waste management and remediation activities	14
B - Mining and quarrying	10
L - Real estate activities	10
I - Accommodation and food service activities	4
D - Electricity, gas, steam and air conditioning supply	3
J - Information and communication	3
A - Agriculture, forestry and fishing	2
R - Arts, entertainment and recreation	2
S - Other service activities	1
Total	1572

Table A34: Professions of the winners new employees

NKD code	Number of new employees
(7122) Masons	996
(7124) Carpenters & joiners	799
(9911) Workers without occupations	774
(9312) Civil engineering workers	638
(8332) Operators of construction-, and similar machinery	634
(8324) Drivers of heavy goods vehicles and towing vehicles	602
(3112) Architectural, civil and geodetic engineers and technicians	571
(7222) Toolmakers and related occupations	438
(7129) Other masonry occupations	389
(9132) Cleaners and maids	361
In top 10 professions	6202
Total	11285

Table A35: Quantification

		Auction awarded value			Quantification of a single employee		
		Median	Mean	Obs.	Employee effect	Cost (by Median)	Cost (by Mean)
Entire sample		178506.67	721422.24	2859.00	1.82	98080.59	396385.80
By bid "closeness"	10%	206294.67	804698.65	1436.00	2.45	84201.90	328448.43
	.5% to 4%	214906.13	641032.67	610.00	2.167	99172.19	295815.7
By agency expenses	2nd quantile	176805.47	782083.31	484.00	3.64	48572.93	214858.10
	1st quantile	186612.00	537966.51	511.00	4.127	45217.35	130352.90
By auction size	< 100,000€	62252.27	55558.84	201.00	0.85	72894.93	65057.19
	100,000€–500,000€	162488.93	187529.35	816.00	2.43	66785.42	77077.42
	500,000€–1,500,000€	635793.07	682022.80	290.00	2.79	227801.17	244365.03
	> 1,500,000€	1989373.97	5199027.43	158.00	7.36	270479.13	706869.81

Notes: All monetary values are given in euros. VAT is excluded.