

# Kilpailun puute julkisissa hankinnoissa

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Valtakunnallinen terveydenhuollon hankintaseminaari

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# Esityksen sisältö

- Kilpailun määrä julkisissa hankinnoissa, ja sen syitä ja seurauksia (Halonen, Jääskeläinen, Tukiainen 2019; Halonen ja Tukiainen 2020)
- Kilpailu SOTE-alan hankinnoissa (Baulia, Martinheikki, Tukiainen 2022)
- Hankkijoiden preferenssit (Tukiainen, Blesse, Bohne, Giuffrida, Jääskeläinen, Luukinen, Sieppi 2021)
- Miten kilpailua voisi lisätä?

# Data

- Cloudia-tietokanta 2010-2017: 18000 hankintaa, joista yksityiskohtaista tietoa
  - Kaikki tarjoukset (n)
  - Rekisteröinnit (N)
  - Tarkastelemme erikseen SOTE-hankintoja
- Ruotsin aineisto 2012-2018: 130000 hankintaa, vähemmän tietoja

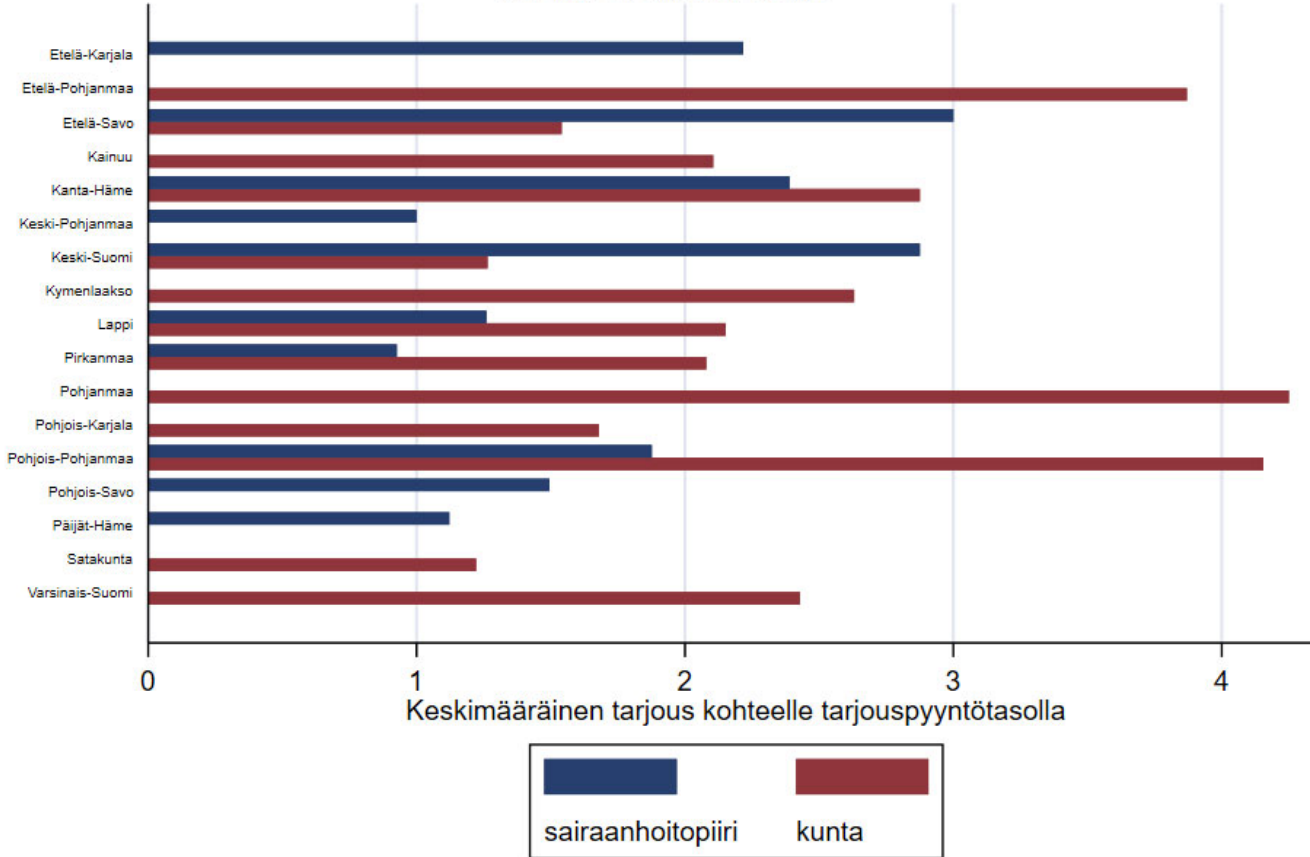
# Amount of competition

**Table 1:** Shares of ITTs with a given number of actual or potential bidders in Finland and Sweden

ITT level						Auction level		
Finland				Sweden		Finland		
count	bidders (n)	bidders (n>0)	registrations (N)	bidders (n)	bidders (n>0)	count bracket	bids	bids (n>0)
0	31.72 %		7.17 %	22.95%		0 - 0.99	35.14 %	6.88 %
1	15.15 %	22.18 %	8.81 %	14.93%	19.38%	1 - 1.99	17.23 %	23.37 %
2	14.37 %	21.04 %	10.19 %	15.41%	20.00%	2 - 2.99	15.50 %	22.70 %
3	11.31 %	16.57 %	11.56 %	13.69%	17.77%	3 - 3.99	11.45 %	16.76 %
4	8.01 %	11.73 %	10.50 %	9.86%	12.80%	4 - 4.99	6.94 %	10.16 %
5	5.07 %	7.43 %	9.13 %	6.85%	8.89%	5 - 5.99	4.50 %	6.59 %
6	3.60 %	5.27 %	7.17 %	4.55%	5.90%	6 - 6.99	2.79 %	4.09 %
7	2.35 %	3.44 %	6.24 %	3.04%	3.94%	7 - 7.99	1.86 %	2.72 %
8+	8.43 %	12.35 %	29.22 %	8.72%	11.32%	8 -	4.60 %	6.73 %
obs	17,944	12,253	17,944	131,601	101,397		17,944	12,253

# Actual bids per object within an ITT (incl. ITTs with zero bids (39.37% of total))

Kohdekohtaiset tarjoukset SOTE-hankinnoissa - sairaanhoitopiirit vs kunnat - vuonna 2016  
Helsinki-Uusimaa ei sisällä

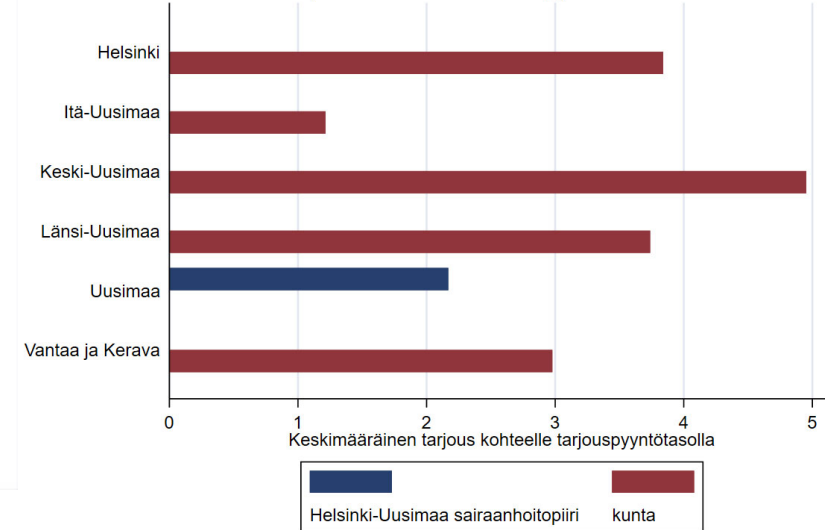


Mean bids per ITT among hospital districts vs. municipalities within SOTE divisions (excludes Helsinki and Uusimaa region)



Mean bids per ITT in H&U hospital district (blue bar) and the municipalities within their new SOTE divisions (red bar). Mean over all the red bars is ~3.34

Kohdekohtaiset tarjoukset SOTE-hankinnoissa - sairaanhoitopiirit vs kunnat - vuonna 2016  
vain Helsinki ja Uusimaa - uusien SOTE-rajojen sisällä



Note: number of bidders is right-censored at 10.

# Effects of competition

Table 2: OLS and 2SLS regressions on the effects of competition on price

	OLS			IV		
	Full sample	n≤6	n>6	Full sample	n≤6	n>6
First stage				0.179*** (0.0403)	0.0785*** (0.0217)	0.0256 (0.0137)
n	-0.0171*** (0.00154)	-0.0233*** (0.00222)	-0.0123* (0.00520)	-0.0261** (0.00814)	-0.0517* (0.0249)	-0.0198 (0.0787)
Constant	0.150*** (0.0246)	0.161*** (0.0284)	0.281*** (0.0481)	0.172*** (0.0370)	0.239** (0.0815)	0.343 (0.608)
Observations	95602	83258	12344	94943	82640	12303
R-squared	0.08	0.08	0.06	0.07	0.05	0.06
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: In the first stage, we regress the instrument  $N^{IV}$  on the number of actual bidders  $n$ . 2-digit CPV classification is used for industry fixed effects. The unit of observation is an auction. Standard errors are clustered at the industry level. Standard errors in parentheses. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

# Lack of potential bidders or entry costs?

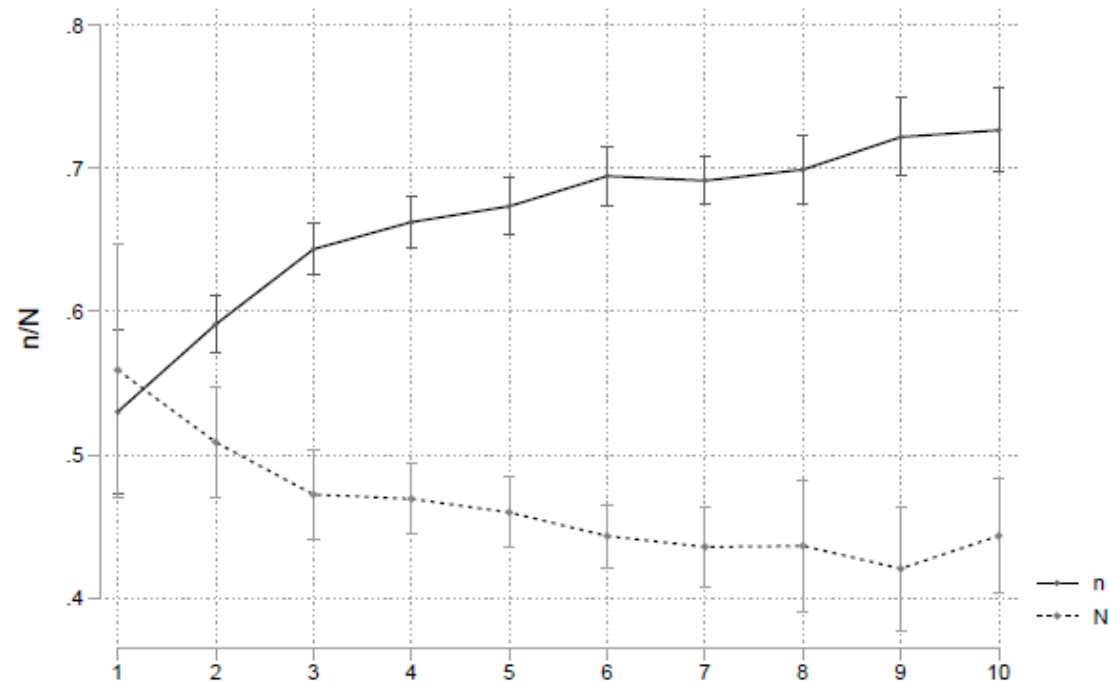
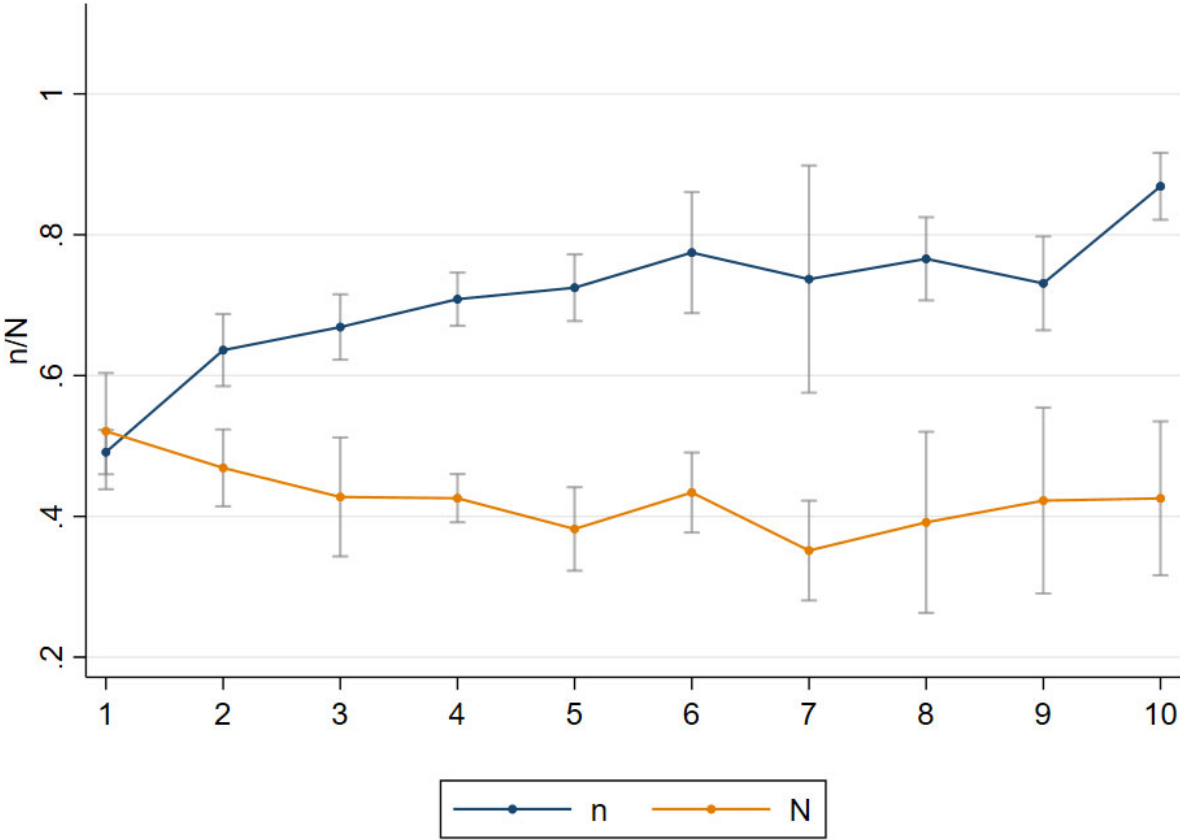


Figure 3: Predicted mean  $n/N$  for for  $n$  and  $N$  respectively

Notes: Predicted means and their 95% confidence intervals are obtained by regressing  $n/N$  on  $n$  and  $N$  dummies respectively. We control for contracting authority and industry group fixed effects as well as the procurement method. Standard errors are clustered at the 2-digit CPV category level. Estimates available only for Finland.

# Lack of potential bidders or entry costs? - SOTE





# Mitä opimme?

- Vakava puute kilpailusta julkisissa hankinnoissa yli maiden, toimiajojen, hankkijatyypin, alueiden ja ajan
- Yhden lisätarjoajan saaminen kaikkiin hankintoihin saattaisi tuoda jopa 5% säästöt (5% 40 miljardista on 2 miljardia)
- Kilpailun määrää ennustavat tekijät vaihtelevat eri toimialojen välillä: edellyttää tapauskohtaista analyysiä
- Korkeat tarjouksen tekemiseen liittyvät kustannukset näyttävät olevan suurempi ongelma kuin potentiaalisten tarjoajien puute

# Miten lisätä kilpailun määrää?

- Haastattelujen antia: resurssit; kategoria- ja sopimusosaaminen; suunnitelmallisuuden, johtamisen ja sopimusvalvonnan parantaminen; viestinnän ja avoimen kommunikaation lisääminen; kumppaniajattelu; Toiminnallisuuksien määrittäminen tiukkojen vaatimusmäärittelyjen sijaan
- Eron "hallinnollisten kustannusten minimointi" –ajattelusta, eroon "hallinnollisesta ja juridisesta fokuksesta". Tilalle talousajattelua:
  - Uusien yritysten (uusien tarjoajien) tukeminen ja tarjoamisen helpottaminen: Ovatko kaikki potentiaaliset tarjoajat löytäneet asiakirjat, voisiko tarjousaika olla pidempi, ovatko kaikki selvitykset ja näytteet tarpeen, ja ovatko ehdot toimialalle tyypillisiä, onko sääntely liian tiukkaa, kuinka palkita hyvistä aiemmista suoritteista, kuinka jakaa riskit
  - Yrittävätkö hankintayksiköt riittävästi lisätä kilpailua ja alentaa tarjoamisen kustannuksia? "Parhaat toimittajat", "toimintakulttuuri = vanhat asiakirjapohjat"
  - Kilpailun määrä onnistumisen mittarina
- Kuinka lisätä kilpailua niin, että ei välity cost-overruns kautta?
- Kuinka soveltaa strategisia/vaikuttavuus –tavoitteita ilman että ne vähentävät kilpailua?
- Nackan kunta: esimerkki onnistuneesta muutoksesta
- Sitovat kattohinnat?
- Entä voiko regulaattori säännellä kilpailua suoraan? Case Tsekki: Saa hankkia vain jos vähintään 2 tarjousta!

# Titl (2021): Regulation prohibits single-bid contracts

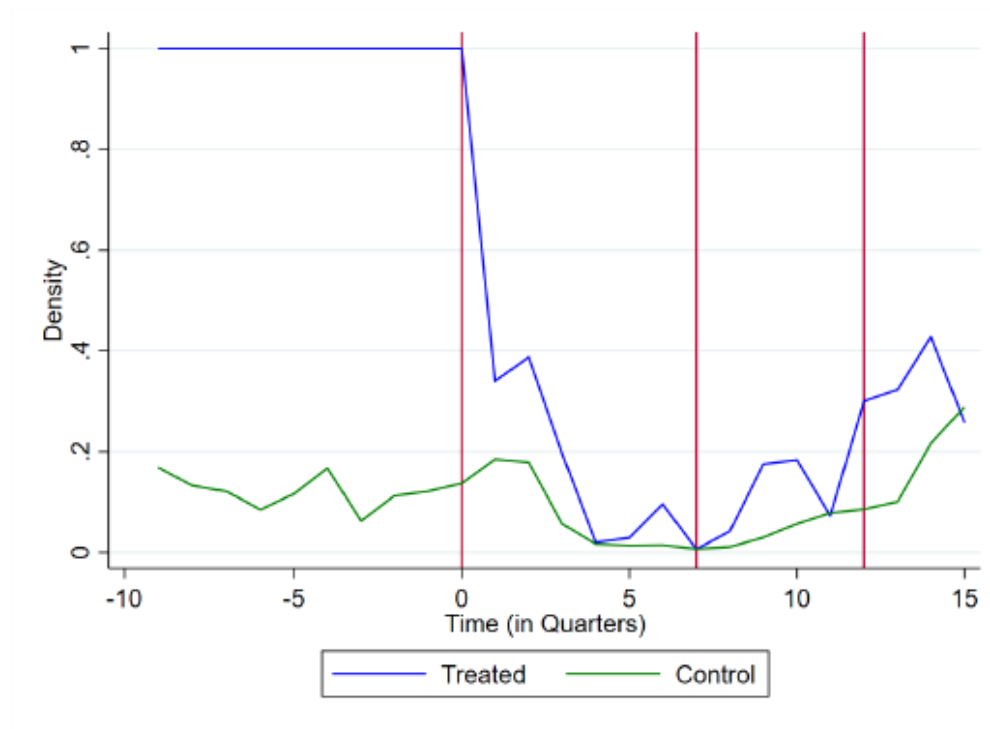
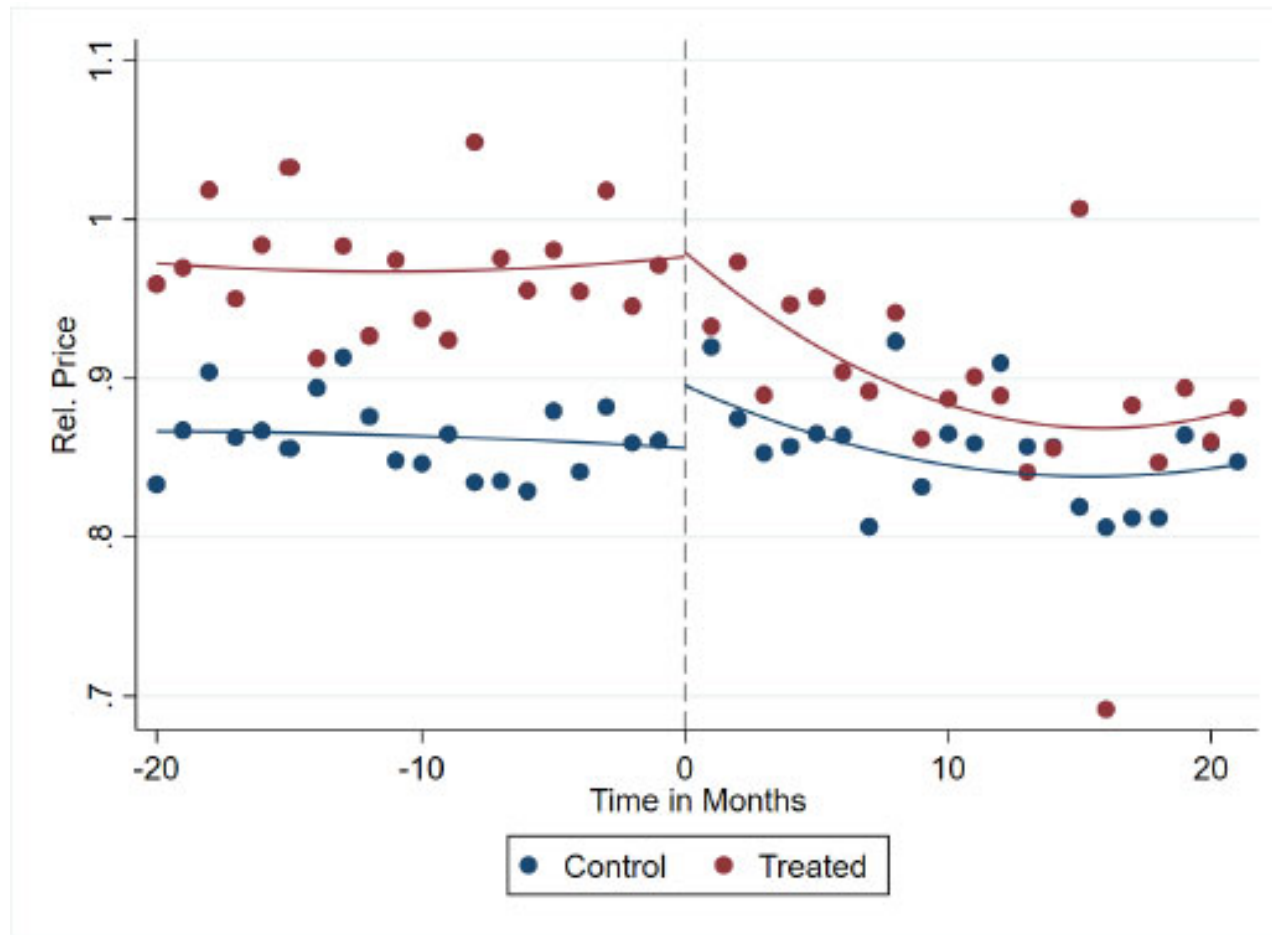


Figure 1: Single-bid contracts over time (between the 2 left red vertical lines, the enforcement of the competition was in power). The first red vertical line represents the time of the reform (4/1/2012). The two red vertical lines on the right represent the two following reforms in 2014 and 2015 that first partially and then fully abolished the reform from 2012.

# Titl (2021): Regulation prohibits single-bid contracts



## What Are the Priorities of Bureaucrats?

Evidence from Conjoint Experiments with Procurement Officials

Tukiainen (UTU), Blesse (ZEW), Bohne (ZEW),  
Giuffrida (ZEW), Jääskeläinen (Aalto), Luukinen (FCCA),  
Sieppi (FCCA)

# Context and Research Question

- ▶ Analysis in the context of public procurement (PP)
  - ▶ Relevant worldwide ( $\approx 1/7$  GDP and  $1/3$  public budget)
  - ▶ Ideal laboratory to study bureaucratic behavior due to its cross-institutional nature
  - ▶ POs have high discretion (with much analysis of the implications)
- ▶ Specifically, what are the preferences of public procurement officials (POs) regarding tender outcomes (i.e., the result of the contract awarding process)?
- ▶ Relevant question as tax-payers and bureaucrats are in a principal-agent relationship with potentially misaligned interests (especially when it comes to POs!).
  - ▶ E.g. Do POs' preferences contribute to the pathological lack of competition observed in PP (EC 2017, Jääskeläinen and Tukiainen 2019, Kang and Miller 2020)?

# Sample and set-up of survey

- ▶ Experiment comes with a cross-country web-based survey in native language among POs based in two countries
  - ▶ Finland (1,301 contacts, 414 complete respondents) conducted by the Finnish Competition Authority (FCCA)
    - ▶ Contacts from administrative database of PP notices (“Hilma”), representing universe of unique PO contacts on mandatory online PP platform
    - ▶ Finnish sample representative office-wise (comparable descriptives + no selective response)
  - ▶ Germany (7,247 contacts, 540 complete respondents) in cooperation with DVNW, the leading national platform for PP-related news and information (survey still organized by FCCA)
    - ▶ German contacts not fully representative (unlike in Finland)
- ▶ We also ask about individual and institutional environment features
- ▶ Frontline and back-office POs at all levels of government (large variation in office size, type, job tasks & hierarchy etc.)
- ▶ Through our partners, we field an anonymous online survey (ca. 15 mins) plus two reminders

# Conjoint Experiment - framing

- ▶ To elicit preferences, bureaucrats decide and 'trade-off' repeatedly (and under hypothetical full discretion) between pairs of fictional tender outcomes which randomly vary
    - ▶ price/quality of winning bid
    - ▶ reputation and regionality of winner
    - ▶ degree of competition in tender process
    - ▶ filing of judicial complaints
  - ▶ Focus on POs' choices of favorite tender outcomes that always imply multiple underlying preferences/trade-offs
    - ▶ E.g., local small businesses at risk of poor performance? Costs vs. benefits of competition? Price vs. quality?
  - ▶ Timing: i) bids are in, ii) winner is chosen and iii) losers have had the time to litigate, BUT iv) no post-award info
  - ▶ Decision scenario is
    - ▶ familiar to all respondents across inst. backgrounds
    - ▶ relevant for all procurements & job tasks
- ⇒ the elicited choices are realistic and relevant for as many procurers as possible



# Conjoint experiment - Choice example

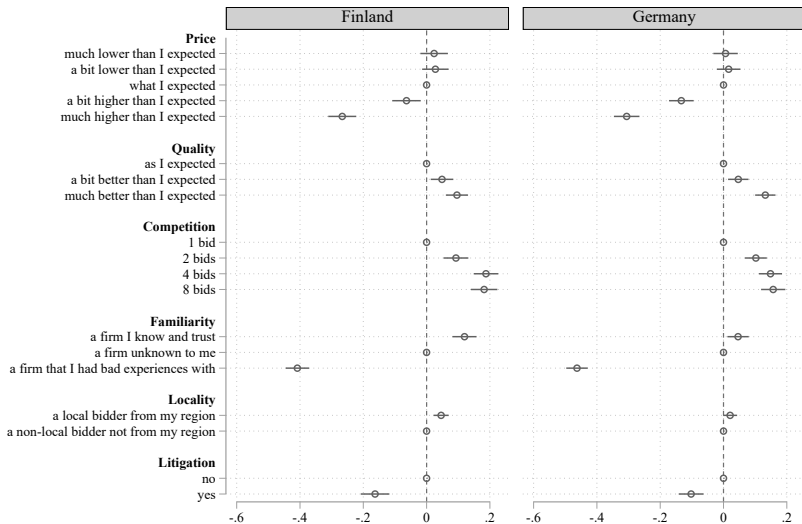
Please look at the following pair of hypothetical tender outcome scenarios carefully and make a decision which you would like more.

Which tender outcome scenario do you prefer?

	Tender outcome A	Tender outcome B
<b>The selected winner is</b>	a firm I already know from previous tenders and trust	a firm that was unknown to me through previous tenders
<b>After awarding the contract, was a legal complaint filed against the tender?</b>	No	No
<b>The tender received</b>	4 bids	8 bids
<b>The quality of the purchase as promised in the winning bid is</b>	a bit better than I expected	much better than I expected
<b>The selected winner is</b>	a local bidder from your region	a non-local bidder that does not come from your region
<b>The price as stated in the winning bid is</b>	much higher than I expected	much lower than I expected
	<input type="radio"/>	<input type="radio"/>

Next

# Main Results



# Discussion of conjoint results

- ▶ Avoiding negative realizations of supplier reputation and prices more important than grasping positive realizations.
  - ▶ This is consistent with loss-averse public buyers
- ▶ It is more important to avoid bidders with bad past performance than to elude unexpectedly high prices
- ▶ They value a certain amount of competition even conditional on bid price-quality combinations
- ▶ Expected effects of litigations (-) and regionality of winner (+), but small

# Descriptive Results & Subgroup Analysis

- ▶ Responses on the work environments in our settings underscore the relevance of our research question as POs in both countries
  - ▶ perceive to have substantial amount of discretion ▶ discretion
  - ▶ do not perceive PP outcomes as important for their career, i.e. suggestive for lack of extrinsic incentives ▶ incentives
  - ▶ view rigid regulation as one of the largest obstacles to desirable work outcomes.
- ▶ We test battery of mechanisms via sub-group analysis
  - ▶ No significant decision differences between sub-groups
    - ▶ award mechanism
    - ▶ workload
    - ▶ boss or not?
- ▶ How so?
  - ▶ Intrinsic motivation vs. adherence to rules?
  - ▶ Plausibility checks (i.e., stated behavior to rule out a key alternative explanations)

# Conclusions

- ▶ Unique survey experiments among real-world POs & first experimental evidence on bureaucratic preferences
- ▶ Estimate the relative importance of specific attributes determining their individual preferences for procurement tender outcomes
- ▶ Bureaucratic preferences are sensible and sophisticated and useful to open up puzzle “high discretion/low incentives/good outcomes”
  - ▶ Priority on avoiding bids from suppliers with bad reputation
  - ▶ Also avoid large prices and value sufficient competition
  - ▶ The size of the effects in case of negative realizations is considerably stronger than for positive ones.
  - ▶ Litigation and regionality concerns are of minor importance
- ▶ Choices + stated behavior + different context consistent with intrinsic motivation

# Policy lessons

- ▶ It seems we should not be that concerned with lack of discretion, resources, sophistication or skills in Finland or Germany
- ▶ PO's lack incentive structure (e.g., to seek very low prices). But we have to be careful not to crowd out intrinsic motivation
- ▶ In the big picture, reasons for the lack of competition seem to be elsewhere than at POs preferences!
- ▶ Should we be more concerned with regulation and entry barriers (e.g., secondary objectives)?
- ▶ Should PO's be empowered to reward/punish for past performance? We need less strict EU regulation here? Results consistent with Spagnolo and coauthors' empirical work