

FAVORITISM IN PUBLIC PROCUREMENT: EVIDENCE FROM SWEDEN

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First version December 2, 2005

STILL VERY PRELIMINARY – PLEASE DO NOT QUOTE

Abstract

We study favoritism in public procurement of cleaning service contracts in Sweden 1990-1998. Cleaning services are a low-tech, clearly defined product with easy entry and no ex-ante quality differences. We study a period where the law allowed municipalities high degrees of freedom in choosing the winner. In our data, the lowest bid does not win 61% of the time, and municipalities pay on average 38% more than the lowest bid. Municipal behavior systematically correlates with the composition of the municipal council: councils with the largest majorities (whether right- or left-wing) put no weight on price in determining the winner. Our data and results demonstrate that favoritism may quickly occur even in a highly non-corrupt society once the rules allow for it, and whether or not it occurs is systematically linked to some political fraction having high control over decision-making.

KEYWORDS: Efficiency, favoritism, public procurement.

JEL codes:

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I. Introduction

Public procurement constitutes a large and increasing part of economic activity both in developed and developing economies. Intrigued by this development, economists have turned to study procurement mechanisms with new fervor. This research has shown favoritism and even corruption can emerge as an equilibrium outcome in procurement auctions (e.g., McAfee and McMillan 1989, Laffont and Tirole 1991, and Vagstad 1995; Compte, Lambert and Verdier 2004, and Burguet and Che 2004). These insightful analyses are however backed only by anecdotal accounts and qualitative descriptions of a small number of alleged cases of favoritism. The existing empirical research on public procurement concentrates either on bidder (mis)behavior (e.g. Porter and Zona 1993) or the effects of procurement on production costs (e.g. Szymanski 1996), with few exceptions (Ingraham 2005 studies collusion between auctioneer and bidder). While recent research on corruption has provided evidence of the extent and mechanisms of graft in developing countries (e.g. Svensson 2003), systematic evidence on favoritism in public procurement in developed countries is scant. Equally little is known about whether favoritism, as it is practiced, is (in)efficient. The aim of this paper is deliver evidence that directly bears on these questions.

Nordic countries have traditionally excelled in international rankings on (lack of) corruption. As outright corruption is and ought to be less of a nuisance in developed than in developing countries (e.g. Shleifer and Vishny 1993), this should be no surprise. Yet, this paper is about favoritism in Sweden, a country that is one of the least corrupted countries in the world.¹ Using detailed data on procurement of internal cleaning contracts

¹ Examples of these rankings are those provided by World Democracy Audit and Transparency International.

in Swedish municipalities during 1991-1998 we i) document the existence and extent of favoritism, and ii) provide evidence on the political economy of favoritism. In our data, the lowest bid does *not* win 61% of the time, and municipalities pay on average 38% more than the lowest bid. We look at several individual procurements and find that these numbers are not in line with either efficient favoritism, or with the assumption of (ex-ante known) quality differences. Studying the determinants of winning using a structural econometric model of municipal decision making we find that councils with largest majorities (right- or left-wing) put no weight on price. Our reduced form analysis of bids suggests that favoritism as practiced in our data may only be efficient in municipalities with “hung” councils.

The theoretical literature on procurement auctions has provided numerous insights, highlighting that the scope for favoritism in a procurement auction depends much on what is being procured and how the procurement is organized (see, e.g., Laffont and Tirole 1991). In the recent models of procurement auctions it is typically assumed i) that the object of bidding is very complex, ii) that there are at least potentially major quality differences in the bids, iii) that these qualities of bids are initially the bidders’ private information, and iv) that delegation is inevitable.² In contrast with the theoretical literature, we study a product - cleaning services - where both the production process and the procurement specifications leave little if any room for quality differences, i.e., differences in the quality of cleaning of a particular object for which firms are bidding. This choice is in line with some recent empirical work on public procurement (e.g. Szymanski 1993, 1996 who studies garbage collection in the UK) and frees us from the

² The assumed non-price attributes of bids may be a choice variable of the suppliers, quite like in Che (1993) and Burguet and Che (2004), or exogenous, in which case they can (as e.g. in Armstrong 1996) but need not (Laffont and Tirole 1991, Vagstad 1995) remain the suppliers’ private information.

need to control for quality differences between the bids. Indeed, with no (ex-ante known) quality differences between bids there is little reason for a procurement officer to choose any other bid but the lowest, unless (s)he is engaged in favoritism of one type or the other.

In the following section, we survey the theoretical literature on biased procurement auctions and discuss which varieties of favoritism we ought to consider and how they come about. This literature informs us for example of the conditions under which favoritism can be efficient. It also emphasizes the possibility that even if there were no ex ante quality differences in the bids, the permanent characteristics of firms, such as their probability of bankruptcy, may explain why the lowest bid does not always win. To take the implications of such fixed firm characteristic seriously, we control for them in the empirics in a number of ways, by for example conditioning our empirical tests on the types of firms.³

Fundamental for our study is that the Swedish law on public procurements in the 1990s had peculiar consequences, giving municipalities high degrees of freedom to choose how to procure the services, and whom of the bidders to pick. We describe the legal and institutional environment, the product (i.e. the object of bidding) and the data in detail in section three.

The rest of the paper is organized so that in section four, we present our case for the existence of favoritism and our econometric analysis. We devote section five to robustness tests and conclude in section seven.

³ Some models of corruption furthermore suggest that corruption depends on how profitable firms are (i.e., corruption payoff is increasing in total profits; see e.g. Ades and Di Tella 1999). In Svensson's (2003) empirical study, a firm's "ability to pay" and "refusal power" are found to determine whether it has to pay briberies.

II. Favoritism in theoretical models of procurement

Favoritism can come in a number of varieties. As McAfee and McMillan (1989) show, an obvious case for favoritism emerges when each bidder is better informed about its own costs and the cost distribution of at least one bidder, say that of a local firm, compares unfavorably to the distribution of others. If these cost asymmetries are common knowledge, the buyer has an incentive to resort to a price-preference policy of not always purchasing from the lowest bidder. The policy forces cost-efficient non-local firms to bid more aggressively, allowing the buyer to minimize its expected procurement cost. This type of favoritism can be efficient, if efficiency is measured from the perspective of end-users. In our case, they would be the inhabitants of the Swedish municipalities.⁴

Another obvious case for favoritism emerges in the presence of preference asymmetries, i.e., if the procurement agent has a preference for one of the bidders. In Vagstad's (1995) model, the assignment of favor is exogenous, as the procurement agent has a preference for local firms that derives from the agent's interest in local firms' profits (and possibly other local positive externalities from production, such as income taxes and employment). There are no cost asymmetries *ex ante*, but the agent can discriminate against non-local firms in shadow of asymmetric information about quality. He does so by (i) choosing the non-local firms less often and (ii) leaving them with smaller profits when chosen. In Laffont and Tirole (1991), the preference asymmetry of the procurement agent is an outcome of collusion between him and a bidder. The

⁴ This view is different from that taken by Eklöf (2005), who considers the efficiency of first-price, sealed-bid procurement auctions of road painting from the perspective of the central government of Sweden. Eklöf documents that because the bidders were in the 1990s *ex ante* asymmetric in these auctions, the social costs implied by the inefficient allocation of contracts may have been substantial.

preference asymmetry can also emerge endogenously, as it does in Celentani and Ganuza (2002) as a result of a bribe demand by the procurement agent and in Burguet and Che (2004) as an outcome of a bribery game.⁵

Whether favoritism *can* be efficient or desirable from the perspective of the inhabitants of the Swedish municipalities appears to depend on two mutually nonexclusive conditions: On the one hand, favoritism may reduce expected procurement costs if it enhances competition by providing an incentive for the group of non-favored firms to bid more aggressively (as it does in, e.g., McAfee and McMillan 1989, and Burguet and Che 2004).⁶ On the other hand, favoritism can be desirable, if the assignment of favor is systematically related to the identity of bidders and in congruence with the preferences of the inhabitants (Vagstad 1995, see also Rezende 2004).⁷ In the municipal procurement auctions we study, such congruence would have to mean that the

⁵ In Celentani and Ganuza (2002) the main interest is in how bribery taking depends on the degree of competitiveness of the environment, whereas in Burguet and Che (2004) it is the reverse (i.e., how bribery taking influences competition). It is worth noting that in Burguet and Che favoritism benefits the buyer only if an out-bribed firm has an incentive to bid more aggressively, i.e., if bribery taking enhances competition. A recent paper by Compte, Lambert-Mogialiansky and Verdier (2005) is yet another study of how bribery taking influences competition. In their model, the preference of the procurement agent over a particular bidder is also a result of a bribery game. The bribery game takes place after bids have been submitted and one of the procurement agents doctors a bid in exchange for a bribe. This model belongs to the class of models of bidder-auctioneer collusion that is based on “magic number cheating” (so termed in Ingraham 2005), in which the auctioneer or his agent saves the bid from the dishonest bidder until last and doctors a new bid for this bidder just below the lowest bid of the other bidders. Other models in this spirit include Burguet and Perry (2002) and Menezes and Monteiro (2005). In these models, the lowest bid always wins, which is in stark contrast to what we observe in our data.

⁶ This is not a uniform prediction, however: In yet another model of biased procurement auctions, Rezende (2004) considers a set up in which the preference of the buyer over one of the bidder is exogenous. Albeit the preference may initially be the buyer’s private information, Rezende shows that a full disclosure of such preference is always optimal and, in particular, that it may be optimal for the buyer to bias the auction rules towards the preferred supplier. The motivation to introduce the bias is that it makes the preferred supplier more likely to win. As a result, the lowest bid does not always win. However, increasing the bias reduces in Rezende’s model competition, as it makes the bidders more asymmetric. The effect of this is an increase in mark-ups and in the cost of procurement. In Rezende’s model, there is however no room for favoritism in the traditional sense, as the end-user runs the auction himself.

⁷ In Rose-Ackerman (1975), firms face different bribery costs. In her model, favoritism is never efficient, as it leads to inflated procurement costs.

inhabitants prefer seeing internal cleaning service contracts awarded to local bidders, whose profits, income taxes and employment they may internalize.

III. Description of the institutional environment and data

In this section, we first discuss the legal and institutional environment in which the municipalities and the firms in our data acted. We then describe the data collection process, data sources and main features of the data.

A. Environment

Our data come from the period 1991-1998 during most of which public procurement in Sweden was governed by a new law, the Public Procurement Act (LOU 1992:1528). While the law was not yet in force in 1990-1993, the first years of our data, the rules that were applied then were essentially the same as under the new law. The new law specified the environment in which municipalities and bidding firms acted.

From our point of view the following features of the law are central:⁸ *First*, while the law allowed a municipality to arrange simultaneous procurement auctions, combinatorial bidding was not applied, and the municipality made decisions “object by object”. *Second*, only sealed (non-combinatorial) bids were allowed. *Third*, the lowest bidder should have won. *Fourth*, there was an exception to the “lowest bid wins” -rule: A municipality had the freedom to deem that some other bid (than the lowest bid) was “most advantageous economically” when quality, environmental aspects, service and maintenance etc. were taken into account (in addition to price). If that was the municipality’s view, the lowest bid did not have to win. The non-price criteria should have been posted in advance of the

⁸ The Public Procurement Act stipulates different rules depending on what is being purchased: Supplies, works or services.

bidding, but the weight attached to each criterion in the evaluation was (in the procurements studied here) in general unknown to the bidders prior to the bidding.⁹ In other words, municipalities did not (have to) use any explicit scoring rules during our observation period.¹⁰ Interestingly, the law did not explicitly mention locality of the bidder as an allowable dimension, but seems not to have ruled it out either. Under the current rules, it is illegal.

It is illustrative of the atmosphere in which the law was written that the freedom allowed by the law to deviate from choosing the lowest bid was actually seen as beneficial. The following quote from a book by a public sector lawyer - which the municipalities apparently took to heart - testifies to this:

“The tender having the lowest price offered should be accepted. If it has been stated in the advertisement that the most economically advantageous tender will be accepted, factors specified therein can be taken into consideration in the assessment of tenders. The factors can be stated according to a degree of priority (LOU 1 ch. 22§), however this is not a requirement. On the contrary, it can be advantageous to state in the advertisement that such factors are non-prioritized, since this increases the possibility of being able to choose the contractor.” (Löfving 1994, pp. 65; our italics).

Besides having the freedom to deviate from choosing the lowest bid, the municipalities were allowed to make two other decisions: To procure or to produce in-house, and conditional on deciding to procure, whether to allow open entry or not. In what follows, we take a municipality’s decision to procure and the number of cleaning service contracts

⁹ An example of a typical contract notice is found in Figure 1B in Appendix B.

¹⁰ It is of interest to note that this changed after our observation period, partly because of EU wide directives that dictate that explicit scoring has to be used. However, it is important to keep in mind that the clear purpose of the Public Procurement Act of 1992 was that if the lowest bidder is not awarded the contract, this has to be because along some well-specified (and ex ante notified) dimensions, some higher bid is “more economically advantageous”.

that it procured, as well as their characteristics, as given.¹¹ As for the mode of entry, the law allowed for four types of procurement mechanisms:¹² Simplified, Open, Restricted and Negotiated.¹³ What's relevant for the model of entry is that i) Simplified and Open are for all practical purposes identical, their main feature being that participation is free for all potential bidders (Open entry) and that ii) Restricted and Negotiated, too, are identical for all practical purposes, their main feature being that the municipalities invited bids from selected firms (Restricted entry). Negotiations with potential suppliers after the bids had been submitted were allowed under Simplified and Negotiated, but in our data the use of such negotiations is nonexistent.¹⁴ We can therefore view this possibility as unimportant and group the procurement mechanisms as described in Table 1. In the empirics, we condition on the mode of entry.

[TABLE 1 HERE]

Another important part of the institutional environment is that we study municipal decision making. Swedish municipalities are characterized by one of the building blocks of the theoretical literature on favoritism in procurement auctions, namely delegated

¹¹ It is of course entirely possible that some municipalities decided to procure cleaning services for, say, some of their schools while keeping the cleaning of others in-house. However, the fact that in several of the municipalities in our data in-house production participates in the bidding (see below) suggests to us that the decision of whether to procure internal cleaning services or not is not made piece-meal, but is a discrete decision.

¹² The law in fact allowed for a fifth type, called Direct. This type of procurement mechanism is however not relevant for us, as it involves no bidding and is only allowed in exceptional circumstances.

¹³ The law specified a threshold value of procurement (200 000€), below which Simplified and Direct were allowed, and above which Open, Restricted or Negotiated were required. The question if procurement mechanisms with restricted entry can be empirically motivated with high implementation costs is analyzed in Lundberg (2005). Using the same data as in the present paper Lundberg find no evidence of such relation.

¹⁴ The Public Procurement Act (LOU 1992:1528), states that negotiations are exceptional and only allowed if the terms of the contract are of such a nature that they cannot be specified before the auction. Further, the law also states that the first choice of procurement procedure in procurements above the threshold value should be the open procedure, followed by the restricted and negotiated procedures. There are other specific circumstances in which the law regulates the use of the negotiated procedure. However, these are legal details and not relevant for the analysis in this study. For further details, see chapter 5, "Procurement of services", in the Public Procurement Act (LOU 1992:1528).

decision making. The principal(s) are the inhabitants of the municipality, the agent the municipal council (procurement officer). As the municipal council decision making is built on majority voting, one may take the view that the majority of the council is the agent, and (one of) the minority's task is to monitor the majority.

B. Data

Our bidding and procurement data come from a survey, administered to all Swedish municipalities asking them for procurement documents regarding internal cleaning services. The documents are contract notice, technical specification, list of bidders, bids, and the decision protocol stating the winner of the contract. We don't know if all the Swedish municipalities that organized procurement auctions in cleaning services are in our data: 59 of the municipalities that replied to the survey organized at least one procurement in cleaning services during 1990-98. We have supplemented this data with municipality characteristics, obtained from Statistics Sweden (SCB).

Table 2 describes how the procurements in our data are organized. Procurement is an instance where a municipality (auctioneer) purchases through a procurement procedure cleaning services for one or more "objects". The objects are the premises to be cleaned and the bidders are Swedish firms. This feature of the data means that the event of procurement can consist of one or more "auctions", where a separate, non-combinatorial auction is run for each object. As the column titled "All" shows, the number of procurements in our data is 131 and the total number of objects procured in them is 758. The number of objects per procurement varies from one (single-unit) to 74, and the number of bids per object from one to 37. Table 2 also shows that we observe a

total of 5926 bids, which on average are 158 Swedish krona per square meter. The frequency at which the various procurement mechanisms were used can also be found from the table.

[TABLE 2 HERE]

Table 3 describes the objects. The vast majority of them are schools or daycare centers. The objects vary according to the characteristics we observe: size (in square meters), contract length, prolongation period, and required cleaning frequency. The contract length is the stated contract period and the prolongation period states the period that the contract will be extended with if the current holder of the contract has performed well after the contract period has expired. The prolongation period is normally one or two years. The cleaning frequency is the number of days during a year the object should be cleaned.

[TABLE 3 HERE]

The bidders in the procurements are Swedish cleaning service firms. There are in total 322 firms in our data. They can be divided roughly into four categories. First, there are 4 firms that operate nationally (“National”). This group includes the largest, and some medium sized firms. For confidentiality reasons we have labeled these national firms “Ni”, $i = a, b, c, d$. The largest national firms “Nb” and “Na” submit bids for most objects, whereas “Nc” and “Nd”, two other national firms, submit bids for 6-10% of objects. Second, there are mid-size firms that are active regionally (“Regional”). According to our classification, 70.5% of the firms are regional. The third group consists of small local firms that only bid in one or a couple of municipalities (“Local”). We estimate that 27.5% of the firms are local. The final group consists of firms that used to

be the cleaning department of the municipality, but have at some point been transformed into a company that still is owned by the municipality (“In-house production”). An in-house municipal production unit participates in bidding for almost 40% of objects.

Table 4 describes the municipalities, who organize the procurements. The variable “red” is the proportion of council members that belong to left-wing parties. This proportion varies between 17 and 67% in our data. We measure red as of the date of the procurement. The variable ”majority” is an indicator for a left-wing majority ($\text{red} > 0.5$) in the council.

[TABLE 4 HERE]

IV. Analysis

In this section we first document that a key feature of our data is that there are no quality differences in the bids. This feature lays the foundation for our subsequent empirical analysis and allows us to provide evidence for the existence and prevalence of favoritism. In subsection B we build our main estimation framework. We then explore the determinants of the winning bid and show that the weight that the municipalities give to price is systematically linked to the composition of the municipal council. Finally, we invoke a further assumption and study whether favoritism is (in)efficient.

A. Existence of favoritism

A key feature of our data is that there are no ex ante discernible quality differences between bids. We provide support for this claim by making use of the extensive documentation that is available to us on the technical specifications of the procurements and on the specifics of the bids which the firms submitted. A couple of interviews

complement the picture portrayed by the documentation. Finally, the type of service we are studying provides additional support for the claim. Taking each of these pieces of evidence in turn:

- Most compelling support for the claim of no quality differences is provided by the technical specifications of the procurement instructions. In the process of compiling the data, we obtained the procurement instructions of all the 758 objects for which internal cleaning services were procured in our data. These are in general *very* detailed (an example of a typical technical specification can be found in the Appendix). Besides including a detailed description of the premises to be cleaned, the frequency of cleaning, cleaning method, cleaning substances that are allowed/preferred, and cleaning equipment that is to be employed, they also go into much more minute detail. For example, it is common to state requirements as to the professional education of cleaning staff to be used. Similarly, the monitoring of cleaning is often specified in detail, and it is standard to require the firm to inform the municipality on several features of the working process, and to provide records of hours of work, workforce and machinery employed etc.. As if this wasn't enough, in several instances the procurement instructions go into great detail as to how each space (e.g. classroom, toilet) is to be cleaned. All this suggests that it is very hard to differentiate one-self quality-wise.
- In addition to the procurement instructions, we obtained copies of the bids. The bids, almost without exception, only detail i) the object for which the firm is bidding, ii) the name and contact information of the bidder, iii) and the price, despite the forms providing space for additional information (an example of a

typical bid can be found in the Appendix). If such information is provided, it is invariably uninformative as to potential quality differences. A typical piece of extra information is that the firm A plans to use substance Y in cleaning, say, school Z. The procurement instructions however always dictate in detail the environmental aspects of the substances to be used, and the extra information provided by firm A is that substance Y fulfills these criteria. Again, all this suggests that the firms were not able to differentiate themselves quality-wise in the bids.

- Further supporting evidence comes from our interviews with both a (former) civil servant who used to be in charge of such procurements, and three industry representatives. While the former civil servant maintained that local firms provide higher quality through better local presence, he also mentioned a nationally operating firm as providing similar quality. The three firm representatives were unanimous in stating that all firms provide equal quality in public procurements.¹⁵ They also mentioned that procurement instructions in public procurement are so well-defined that there is no room for (large) quality-differences.
- Our final claim for why the assumption of no quality differences is plausible in our data is the type of service we are studying. The literature on the relative merit of negotiation versus auctions (e.g. Bajari, McMillan and Tadelis 2003 and the literature cited therein) is - for good reasons - mainly interested in “customized goods such as new buildings, fighter jets or consulting services” (Bajari, McMillan and Tadelis 2002, pp. 1). We take a completely opposite track by studying internal cleaning services. Our, admittedly layperson¹⁶ view of (good or bad) cleaning could

¹⁵ One of them, a local operator, maintained that they provide higher quality in private procurement.

¹⁶ Although two of us, in the distant past, have worked for a cleaning company.

be described along the lines of the popular definition of pornography: “you cannot describe it, but you know it when you see it”. Cleaning is a labor-intensive, low-tech service, the quality of which is easily monitored, for which the requisite skills are relatively easily acquired and are wide-spread, and cleaning services is an industry in which barriers to entry are relatively low.

Having no (ex-ante known) quality differences in the bids is central to our investigation: With no such differences, there is little reason for a procurement officer to choose any other bid but the lowest. And yet, for almost 61% of the 758 objects in our data, the municipalities did not choose the lowest bid.¹⁷ By doing so, the municipalities forego substantial cost savings: In cases in which the lowest bid does not win, the winning bid is on average 37.5% higher than the lowest bid. Moreover, some municipalities never award an object to the lowest bidder.

These numbers are puzzling: Does the fact that the lowest bid does not win 61% of the time imply that (at least some of) the Swedish municipalities have been engaged in large-scale favoritism?¹⁸ If it does, how come the Swedish civil servants / municipal decision makers (who have run the procurements) are not in jail? That is, why haven't they been accused of wrong-doing? We offer three explanations.

First, there may have been firm as opposed to bid-specific quality differences. In other words, it may have been common knowledge that some firms have a high risk of bankruptcy. If municipalities were aware of such differences between the firms they

¹⁷ The lowest bid won in 51% of open entry auctions, and only in 25% of auctions with restricted entry. Thus two of the municipal decisions, form of entry, and choice of winner, are interlinked.

¹⁸ The numbers are particularly puzzling in the light of Eklöf's (2005) analysis, which also focuses on Swedish public procurements (road painting procurements) and which covers roughly the same period. A major difference between his data and ours is that in his there was just one decision maker, the central government. From Eklöf's data description it seems that in his data, the lowest bid always won.

could well have made optimal decisions by not choosing the lowest bidders. We will control for this possibility in our estimations below.

Second, even if our analysis implied favoritism, the decision makers could counter that while this is true, they still act in the best interest of the their principals, the inhabitants of the municipality. This is so as they could claim to be engaged in efficient favoritism (McAfee and McMillan 1989, Vagstad 1994) that maximizes the rents of the municipality by eliciting lower bids from firms residing outside the municipality in question. For this to work, they sometimes want/need to award the contract to a local firm not bidding lowest. Indeed, there is qualitative evidence from neighboring (and equally, if not more, free-of-corruption) Finland that municipal decision makers in similar circumstances claim to have made decisions exactly along the lines suggested by models of efficient favoritism.¹⁹ We return to this question below.

Third, even if the municipal decision makers knowingly engaged in inefficient favoritism, they could still – if accused of wrong-doing – claim either that there are genuine, but for a non-expert hard to verify quality differences between bidders, and/or that they were engaged in efficient, not inefficient, favoritism. Even if one could prove that on average the observed favoritism is inefficient, proving it in a particular case beyond reasonable doubt is certainly much harder.

B. Choosing the winner: the modeling approach

¹⁹ The main Finnish daily newspaper, Helsingin Sanomat, Monday May 16th, 2005, pp. A6, ran a story on (problems in the court cases - the number of cases that have been taken to court has exploded in absolute terms while staying low in relative terms - relating to) municipal public procurement. A loose translation: “Some municipalities have tried to justify the choice of a local firm by tax income and employment effects. Such justifications are however illegal under current law”.

In this sub-section, we first present the general modeling framework, then our empirical specification(s), and finally our estimation results. The foregoing suggests that favoritism may exist in our data. The obvious alternative is that there are some firm-level differences that are observed by both the firms and the municipalities, but not by us researchers. To test for favoritism, we take the following route: Our Null hypothesis is that municipalities act as benevolent social planners. This would imply that controlling for other bidder characteristics, the level of the bid should be a major determinant of the winning bid. Our Alternative hypothesis is that municipalities are not benevolent social planners. In such a case, one would expect that the degree to which a given municipality deviates from the socially optimal decision depends on the “power” of the actual decision maker. If different political parties were inclined to favor one or the other (potential) bidder, their possibility to do so is most likely a function of their power in municipal decision making. We assume that the proportion of seats in the municipal council measures this power and explain below how we model the effect of council composition.

In contrast to the burgeoning empirical literature on auctions, our interest is thus not in uncovering the type (distribution) of bidders, but rather in estimating the determinants of buyer behavior, something usually assumed to be cost minimization in procurement auctions. To study the determinants of the winning bid, we adopt the standard random utility framework. We assume that the procurement officer’s utility from choosing bid(der) i for object j is given by

$$(1) \quad U_{ij} = X_{ij}\beta + Z_i\theta + X_{ij}Z_i\delta + \xi_j + \mu_i + \varepsilon_{ij}.$$

In (1), X_{ij} are observed bid(der) characteristics and Z_j are observed characteristics of the procurement officer/municipality/object. They thus do not vary over bids submitted for a

given object. While we in general impose additive separability, one important aspect of our modeling framework is that we allow (some) of the bid(der) and municipality characteristics to have a multiplicative effect on utility. The unobservables are ξ_j , μ_i and ε_{ij} . The first are unobservable procurement officer/municipality characteristics that affect the utility derived from any bid in the same fashion. These may include for example the difficulty of cleaning. The second are unobserved bidder specific characteristics an example of which could be the probability of bidder i going bankrupt. The third are bid(der)- and procurement officer/municipality/object specific unobservable effects. We assume that ε_{ij} are i.i.d extreme value distributed. This leads to the conditional logit model of McFadden (1973):²⁰

$$(2) \quad \Pr[i] = \frac{\exp(X_{ij}\beta + X_{ij}Z_i\delta + \mu_i)}{\sum_{k=1}^K \exp(X_{ik}\beta + X_{ij}Z_i\delta + \mu_i)}.$$

The conditional logit model seems particularly well suited for our purposes as it allows us to condition out everything that is particular for a specific object (e.g. school) such as size, cleaning frequency, location, etc. Thus, and potentially as important, it allows us also to condition out all municipal characteristics that might affect the choice in a linearly separable way. One implication of this is that the conditional logit should be relatively immune to sample selection bias. This would be the case as long as the choice of i) procuring the cleaning service, ii) choice of entry mode, iii) all other choices related to the particular object are independent of individual bids. This should be the case to a

²⁰ We also estimated logit models of the determinants of choosing the lowest bidder. As these suffer from problems in controlling e.g. for the level of competing bids etc., we do not report them here. However, the evidence both from these logit estimations and bivariate probit estimations where the other dependent variable was form of entry support the reported results.

large extent as many of those choices are made prior to firms submitting their bids. In other words, the conditional logit allows us to concentrate on features of bids that vary within bids for a given object.

In practice, the only bidder specific variable that we observe that varies over objects is the bid. Thus our X_{ij} consists of the (log) bid only. As discussed earlier in the paper, we observe many object and municipal characteristics. As these do not vary over bids (within an object), they are all conditioned out. To be able to study the effects of municipal council composition on choices, we interact the proportion of left-wing councilors with the (log) bids. We thus maintain the assumption that all object characteristics and all other municipal characteristics but the council composition affect the utility of choosing a particular bid in an additively separable way.

We introduce the interactions between council composition and bids in a particular way in order to capture the majority-voting nature of municipal decision making. In our simplest specification we interact bids with i) the proportion of left-wing councilors, ii) the left wing majority-indicator, and iii) the interaction of these two. The reason for this specification is that we want to allow the following possibilities to be captured by our specification: 1. right wing majority councils behave differently from left-wing majority councils: 2. the strength of the majority affects decision making: and 3. the strength of the majority affects right- and left-wing majority decision making asymmetrically. As we have no priors on the functional form of the relationship of the strength of the majority of either type, we adopt a general-to-specific modeling framework and start from a 4th order power representation.

A problem that remains is visible from equation (2): the unobservable firm-specific term μ_i does not vanish when going from (1) to (2). Thus differences in firm/bidder quality that are constant over objects (and therefore also municipalities) may affect the choice probabilities. To control for these, we include a vector of firm dummies for those firms that are the most frequent bidders (19 firm dummies), a dummy for inhouse production (who do not bid outside their own municipality and for the majority of which we therefore have very few observations), and a dummy for firms that only bid for one object (the vast majority of firms). The 19 firms for which we include dummies are the 19 most frequent bidders that together account for 55% of all bids in the estimation sample. Inhouse production accounts for 8% of all bids, and firms with single bids for 1.4%.

Another problem that remains within this modeling framework is that individual bids for a given object may be correlated with the error term. This would be the case if bidders knew that they are (dis)avored. The favored firms might submit higher bids than otherwise, and disfavored firms lower bids than otherwise. This type of behavior occurs in equilibrium in models of efficient favoritism, for example. While we present results from specifications where the assumption is that bids are independent of ε_{ij} , we also use an estimator that controls for endogeneity and that allows us to test for its existence. In doing so, we resort to Nevo (2000) type instruments. That is, we assume that the firm-specific error terms are independent over municipalities (not objects), and use firm i 's bids in other municipalities to generate instruments for firm i 's bid in municipality m . This we do by estimating reduced form (log of) bid functions using a (firm) fixed effects estimator, excluding data from municipality m , and using the thus generated expected bid

as the instrument for bids in municipality m . As we operate in a discrete choice framework, we employ a control function approach and bootstrap the standard errors (following e.g. Blundell and Powell 2004). Smith and Blundell (1986) provide a test for exogeneity when using a control function approach in a limited dependent variable framework like ours.

C. Choosing the winner: estimation results

We exclude 552 observations from “auctions” where there were more than one winner, and one observation from an “auction” with only one participant. We estimated equation (2) including always the 19 firm dummies explained above, the indicator for in-house production, the indicator for the firm bidding only once, and the (log) bid. We started by including the interactions between log bids and 1st -4th powers of red, the majority indicator, and the interactions between the powers of red and the majority indicator. We then excluded terms, starting from the 4th order terms, and finishing with a specification with no interactions between log bids and the political variables. The estimation results are presented in Table 5.

In columns (1) and (2) we nonetheless show simpler specifications without political variables. Comparing columns (1) and (2) show that controlling for (unobserved) firm characteristics is important. Not only are the firm (type) dummies jointly highly significant, the change in the coefficient of (log) bid suggests the type of bias one would expect. If it is the case that 1) there are unobserved firm characteristics that affect the utility of (all) municipalities (such as the probability of bankruptcy) and 2) the firms know of this, excluding these from the specification would lead to an upward bias in the

bid coefficient. The reason is the following: Imagine being the manager of a firm with a low (high) bankruptcy probability, and knowing that the municipalities pay attention to this in choosing the winner. You would then increase (decrease) your bid so as to equate the marginal gain in profits, conditional on winning the procurement, against the marginal decrease in the winning probability, induced by the increase (decrease) in your bid.

Let us shortly contrast the results in columns (3) and (4). Column (3) suggests that municipal councils with a left-wing majority put significantly less weight on price than councils with a right-wing majority. Results in column (4) suggest that the story is more nuanced: Starting from a large right-wing majority, an increase in the proportion of left-wing councilors (a decrease in the right-wing majority) leads to the council putting less weight on price. When the left-wing parties gain a majority, there is a discrete jump upwards in the bid coefficient: indeed, the point estimate for a council with a small left-wing majority is positive, indicating that an increase in price (bid) would lead to an increased probability of winning. However, the larger the left-wing majority gets, the smaller the bid coefficient then becomes. What one should take away from columns (2)-(7) is that we reject the more parsimonious specifications against the 4th order power representation. Finally, in column (8) we present the results from treating bids as endogenous. The test that Smith and Blundell (1986) suggest is a t-test on the coefficient of the residual from the 1st stage regression. We have interacted the residual from our first stage bid-estimations with the council variables in order to generate controls

(“instruments”) for the interactions.²¹ We label these v_i . Results in column (8) show that none of these obtains a significant coefficient. We take this as evidence that our data is not plagued by an endogeneity problem between the bids and ε_{ij} .

As the total effect is hard to gauge from the coefficients, we present in Figure 1 the effect of council composition on the effect price has on the probability of winning. The effect is highly nonlinear. What is noticeable from the Figure is that the bid coefficient reaches its highest values at the ends of the empirical support for the share of left-wing councilors. The economic interpretation of this result is that those councils with the largest majorities, whether right- or left-wing, put the least weight on price. The point estimate of the bid coefficient is actually very close to zero for such councils, implying that the bid level has (almost) no impact on the probability of a bidder being chosen.

The second curve in the Figure is our first robustness test. It is possible that some of the lowest bids are made by “fly-by-night” operators that are not “serious” bidders. Including bids in auctions with such participants would bias the bid coefficient upwards, i.e., indicate that municipalities are less price sensitive than they really are. To check the robustness of results against this possibility, we excluded all bids from auctions where the difference between the lowest and 2nd lowest bid was in the 95th percentile of the distribution (over objects) when measured in per cent. As is evident, the differences in results are minor, and the main conclusions the same.

[TABLE 5 HERE]

[FIGURE 1 HERE]

D. Is favoritism efficient?

²¹ Regressing the log bid on predicted bid and controls using firm fixed effects produced a coefficient of .004 with a t-statistic of 12.27 for predicted bids. Our instrument thus has a statistically significant effect on the endogenous variable.

Another key feature of our data is that the “procurement auctions” fall into the independent private value (IPV) category. Our main support for the IPV assumption come from the i) type of service we study, ii) the detailed procurement instructions, and iii) the fact that all interviewed industry representatives claimed that the policy of their firm is to always visit a site before calculating a bid. Cleaning services are very different from the standard example of a common value object - oil drilling. While in oil drilling there is substantial uncertainty as to how much oil there is in a given tract and what its value is when sold, in cleaning there is no such uncertainty attached to the value of the object. As long as there is no common uncertainty as to what inputs a given object requires, the uncertainty associated with it is very likely rooted in firm-specific factors on e.g. distance to the object, possible capacity constraints, shocks in employee turnover etc. Points ii) and iii) ensure that there is very little uncertainty as to what the object requires in terms inputs. In our interviews, firm representatives suggested that there are cost differences between firms that depend on the object for which cleaning services are procured. These can stem from the local organization of the firm and e.g. distance from firm offices to the object.

Our evidence on whether the observed favoritism is efficient consists of an analysis of conditional winning probabilities, and of an econometric analysis. Starting with the first, recall that an underlying assumption behind many models of efficient favoritism such as that of McMillan and McAfee (1989) is that the municipality favors local firms because it internalizes their rents to some degree. Thus, observing that national firms are awarded an object despite not being the lowest bidder provides evidence against this type

of efficient favoritism.²² Against this background, our raw data speak loudly against efficient favoritism: the probability that a national (i.e., non-local) firm wins an auction where the object is not awarded to the lowest bidder is 49%. Thus, in half the cases where the lowest bidder does not win, the identity of the winner is such that it provides evidence against this form of efficient favoritism.

Turning then to econometric evidence, we ran reduced form regressions of the log of normalized bids on i) object characteristics, ii) time dummies, iii) the political variables used above, and iv) an indicator for a firm being a national firm, and interactions between this indicator and the political variables. Efficient favoritism would imply that national firms bid lower. The difficulty we face is how to disentangle different bidding strategies of national firms from their possible cost advantages. The interactions between the indicator for being a national firm and the political variables are designed to circumvent this problem. The indicator should pick up the (average) cost advantage of the large national firms. If their bidding behavior varies with the composition of the municipal council, then this is most likely due to differences in bidding strategies.

[TABLE 6 HERE]

Table 6 reports our results. With a within specification we find that the type of premises affect costs; that there are slight diseconomies of scale both in terms of size of the premise to be cleaned (coefficient of sq. meters positive and significant), and in terms of the cleaning frequency (coefficient of cleaning frequency less than unity). While national firms bid higher in open entry auctions (-.118+.121), other firms bid more aggressively. More interestingly for us, we find that the composition of the municipal

²² Turning to our theme of section II.C, local authorities could justify such choices by hard to observe quality differences.

council has an effect on all bidders' bids. Again we resort to a figure to display the results. In Figure 2 we display the effects of council composition on the bids of a national and "non-national" firm when they bid in an open entry "auction" for a school in 1990 that has the average size, cleaning days and frequency. Starting from the empirical minimum we find that both national and non-national firms' bids decrease when the proportion of left-wing councilors increases. The bid of a non-national firm jumps downwards when the council is hung, while the national firm's bid is monotonically decreasing in the proportion of left-wing councilors. We thus find that councils where neither political side has a clear majority are the ones that elicit the lowest bids from the non-local (national) firms. When we estimate a model without firm fixed effects, the national-firm indicator obtains a positive and significant coefficient. We thus find no evidence that national firms would bid lower than other firms.

[FIGURE 2 HERE]

Overall these results are difficult to reconcile with efficient favoritism. One might however be able to interpret the evidence as suggesting that the most left-wing councils are practicing efficient favoritism as they elicit low(est) bids from all types of firms.

V. Robustness tests

In this section we first provide auxiliary evidence against the alternative hypothesis that there nonetheless are quality differences between bidders that explain the observed behavior. We then explore further whether our results are robust to taking into account that in choosing which bidder to award a given object municipalities might – against the

law – take into consideration those other auctions organized at that were organized simultaneously.

Of course, the lowest bid not winning does not constitute evidence of favoritism *per se*, even if it were true that there are no ex ante quality differences in the quality of cleaning of a particular object for which firms are bidding. If the civil servants act in the interest of the inhabitants of their municipality, they may well care about the identity of the supplier, as that can convey information about a dimension of the quality that is relevant for the choice but that is not specific to the particular object for which firms are bidding. Examples of such attributes of firms are probability of bankruptcy, reputation for fairness, or standard for corporate integrity and responsibility. To some extent both industry and civil servant testimonies indicate that if such differences existed, they were not significant. The econometric results include controls for firm identity (the conditional logit and bid estimations), and thereby are robust to any variation in quality over firms, such as the probability of bankruptcy.

A. Are there quality differences nonetheless?

One might wonder whether favoritism could take place on such large scale. An alternative explanation is that our evidence notwithstanding, there are ex ante quality differences, and municipalities choose the best price-quality weighted bids. In addition to the econometric evidence, in particular the conditional logit estimates with firm dummies, we have two further pieces of evidence that suggest this is not the case.

First, national firms win 36% of the all the objects. This would suggest that they must provide adequate quality. If one is willing to believe that there is only minor

variation in quality within each of the national firms, the implication would be that municipalities should not choose a bid that is higher than that of a national firm. We find in our data however 747 bids by national firms that are lower than the winning bid in the same auction. These constitute 25% of those bids that are lower than the winning bid. This evidence is in contrast with the fact that the national firms win 36% of all objects.

Second, having looked into some individual auctions we have found cases where a given national firm, say, A, is awarded one object in a given procurement, and loses with a lower bid against another (national) firm in bidding for another object in the same procurement. An example of this type of an outcome is given below. For this kind of behavior to be consistent with quality differences, it would have to be that i) some national firms are good at cleaning schools but not kindergartens and ii) the municipalities being aware of such quality differences. We find these requirements implausible.

B. Simultaneous procurements

A major feature of our data is that in most instances when a municipality procures cleaning services, it does so for several objects simultaneously. Thus, there are 131 procurements in our data, and in these 131 procurements, firms can bid for 758 objects. While combinatorial bids are illegal, the data suggests that despite the law requiring that municipalities decide the winning bid object by object, in a large number of procurements, a firm wins several objects. A rationale for this could be that there are transaction costs in dealing with each new contractor, and by awarding the contracts to just a few bidders the municipality is actually minimizing costs. In our conditional logit

estimations we found some evidence that the procurement bid affects the probability of winning. This results was however not robust to the inclusion of firm and firm-type dummies. In this section we study further whether this hypothesis is supported by our data.

We engaged in some case studies by looking at procurements where the number of objects was greater than one, but low. Consider the procurement in municipality A with four objects. A small firm called “a” is awarded one object, the second object being awarded to another small firm despite “a” being the lowest bidder on that object. The national firm “Na” is awarded the other two objects despite “a” being the lowest bidder on one of the objects awarded to “Na”. Also, “a”'s aggregate bid on the two objects that “Na” won is lower than “Na”'s, the difference being of the order of 9000€ In municipality B, a procurement with two objects was held. National firm “Nb” wins one object with the lowest bid. “Na” wins another despite “Nb” bidding lower than “Na”. A third example comes from municipality C's procurement with three objects. Local firm “c” wins one object with the lowest bid and another with the 2nd lowest bid. In-house production wins another despite “c” being the 2nd lowest bidder. In-house's bid on this last object is 55% higher than that of “c”. A local firm, “d” is the 2nd lowest bidder for the object where “c” submitted the lowest bid, and the lowest bidder on the other two objects. If one takes the fact that the municipality chose a given firm for at least one object to mean that that firm's quality is sufficiently high for it not to be a “fly-by-night” operator, then all these three cases provide evidence against the hypothesis that municipalities are minimizing total costs, including transaction costs arising from having to deal with (multiple) firms. This is so as in each of the three cases, the municipality in question

would have saved on both transaction costs and procurement costs by making different choices. In the case of “A”, money would have been saved by awarding all four objects to “a”; in the case of “B”, by giving both objects to “Nb”; and in the case of “C”, by giving all the objects to “c”. In the last case, one may suspect that “d” was a fly-by-night operator, as these three objects are the only ones it bids for in our data. Note also that the case of municipality “B” speaks against efficient favoritism, as “Na” is a national, not a local, firm.

In addition to case studies, we re-estimated our model and included the (log of the) procurement level bid, i.e., the sum of the bids of firm j for all objects i in the procurement k . Using the specification in column (7) of Table 8, the (log of) procurement bid obtained a coefficient .073 with a standard error of .065. We thus found no statistical evidence on municipalities conditioning their choices on the procurement level bids.

VI. Conclusions

In this paper, we utilize a peculiar period in Sweden, one of the world’s supposedly least corrupt countries, to study favoritism in public procurement. Concentrating on internal cleaning service contracts allows us arguably to circumvent many problems faced by researchers studying favoritism. Cleaning services are low-tech, with a well-known production technology and low capital costs. We provide evidence that there are no ex ante quality differences between bids, and that internal cleaning service contracts are within the independent private value category. We provide evidence that quality differences between bidders (e.g. probability of bankruptcy) are unlikely to explain the observed behavior, and control for such differences in our estimations. During the period we study, Swedish municipalities were required to organize sealed bid “auctions”, but

were given high degrees of freedom to choose the bidder they want on “economically most advantageous grounds”.

Our data are quite striking: Despite the above features, Swedish municipalities seem to engage in favoritism on a grand scale. In 40% of the cases, municipalities restricted entry by allowing only bids by invitation. When they did so, in 3 cases out of 4 they did not choose the lowest bidder. The winning (chosen) bid was on average 37.5% higher than the lowest bid. In half the cases when the lowest bid did not win, a national firm was chosen. These facts suggest that favoritism was frequent, costly, and unlikely of the efficient form advocated by theoretical analyses of the type of McAfee and McMillan (1989).

Our econometric analysis shows that municipalities with the largest majorities in the council, irrespective of whether the majority is right- or left-wing, put the least weight on price in choosing the winner when procuring cleaning services. We also found that those councils where neither political side has a large majority elicit the lowest bids from national (non-local) firms, while municipalities with large left-wing majorities elicit lowest bids from local firms. These latter results are difficult to reconcile with efficient favoritism where municipalities sometimes favor local firms in order to elicit lower bids from national ones.

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Table 1. Procurement mechanisms

Procurement procedure	Description
OPEN ENTRY	
Simplified	All potential suppliers are allowed to bid. The contracting entity can invite some or all bidders to a negotiation after the auction. Can be used if the volume of the procurement is below the threshold value of 200000€
Open	All potential suppliers are allowed to bid. Has to be used if the volume of the procurement exceeds the threshold value of 200000€
RESTRICTED ENTRY	
Restricted	Only potential suppliers invited by the contracting entity are allowed to bid.
Negotiated	As restricted, but the contracting entity can invite some or all bidders to a negotiation after the auction.
OTHER (NOT AUCTION)	
Direct	No bidding process, and allowed only in exceptional circumstances. Not an auction, and can be used if the volume of the procurement is below the threshold value of 200000€

Table 2. Descriptive statistics of procurements

		Allocation mechanism				
		Open entry			Restricted entry	
		All	Simplified	Open	Restricted	Negotiated
# procurements		131	60	32	24	15
# objects		758	129	315	255	59
# bids		5926	2806	1882	329	909
Variable	Statistic					
# objects per procurement	Mean	5.9	2.2	9.8	10.6	4.5
	Stand. dev.	10.1	3.9	10.7	16.3	8.1
	Maximum	74	27	37	74	29
	Minimum	1	1	1	1	1
# bids per object	Mean	7.8	7.1	8.9	7.4	5.5
	Stand. dev.	3.9	3.9	4.3	3.3	2.5
	Maximum	37	37	25	16	22
	Minimum	1	1	1	2	2
Bid / sq. m, Swe krona	Mean	158.35	151.74	157.24	168.07	177.54
	Stand. dev.	93.78	91.42	97.59	86.06	92.90
	Maximum	2174.02	2.76	38.06	41.05	13.03
	Minimum	2.77	984.27	2174.02	643.31	918.03

Table 3. Descriptive statistics of objects

Contract dimension			
Type of premise	Frequency	Percent	N
Schools	319	42.1	757
Day care centers	302	39.9	757
Medical health centers	27	3.6	757
Purifying plants	2	0.3	757
Office	65	8.6	757
Sport centers	16	2.1	757
Libraries	16	2.1	757
Others	12	1.6	757
Statistic			
Size (in square meters)	Mean	2469.08	
	Stand. dev.	3615.64	
	Maximum	57	
	Minimum	30132	
Contract period (in years)	Mean	1.7	
	Stand. dev.	0.7	
	Maximum	4.0	
	Minimum	0.2	
Prolongation period (in years)	Mean	0.7	
	Stand. dev.	0.6	
	Maximum	2.0	
	Minimum	0	

Table 4. Descriptive statistics of municipalities

Variable	Mean	Std. dev.	Min	Max
Red	0.46	0.11	0.18	0.67
Red-majority (in 1988)	0.42	0.49	0	1
Population density (in 1992)	138.58	427.09	.36	3655.36
Unemployment (in 1992)	6.93	1.77	2.51	12.03

dummies								
Indicator for inhouse	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Indicator for 1 bid	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
T1	-	.000	.000	.000	.000	.000	.000	-
T2	-	-	.000	.000	.000	.000	.000	-
T3	-	-	-	.023	.000	.000	.000	-
T4	-	-	-	-	.000	.000	.000	-
T5	-	-	-	-	-	.000	.000	-
T6	-	-	-	-	-	-	.000	-

Notes: numbers are coefficient and (standard error). ***, **, and * denote significance at 1, 5, and 10% level. Standard errors in comun (8) based on a bootstrap with 100 rounds.
Ti = p-value of a LR-test of the specification in column in question against the specification in column i.

Table 9. Reduced form bid regressions

Variable	(1)
Childcare	-.486*** (.025)
Healthcare	-.568*** (.053)
Office	-.769*** (.037)
Purifying plants	-.734*** (.151)
Sports facility	-.227*** (.064)
Library	-1.134*** (.071)
Other	-.889*** (.073)
Sq. m.	.0002*** (2.97e-06)
Days	.005*** (.002)
Frequency	.633*** (.241)
Red	.206 (1.891)
Red majority	-27.429*** (6.030)
Interaction	92.788*** (20.736)
Red ²	-.590 (2.670)
Interaction	-78.048*** (17.803)
Red * national	.135 (2.750)
Red majority * national	29.935*** (7.886)
Interaction	-102.081*** (27.153)
Red ² * national	-1.213 (3.907)
Interaction	86.719*** (23.378)
Open entry	-.118*** (.037)
Open entry * national	.121** (.051)
Constant	9.890*** (.761)
Nobs	5373
R ²	.707
T1	.000

Notes: numbers are coefficient and (standard error). ***, **, and * denote significance at 1, 5, and 10% level.

T1 = p-value of a LR-test of joint significance of all RHS variables.

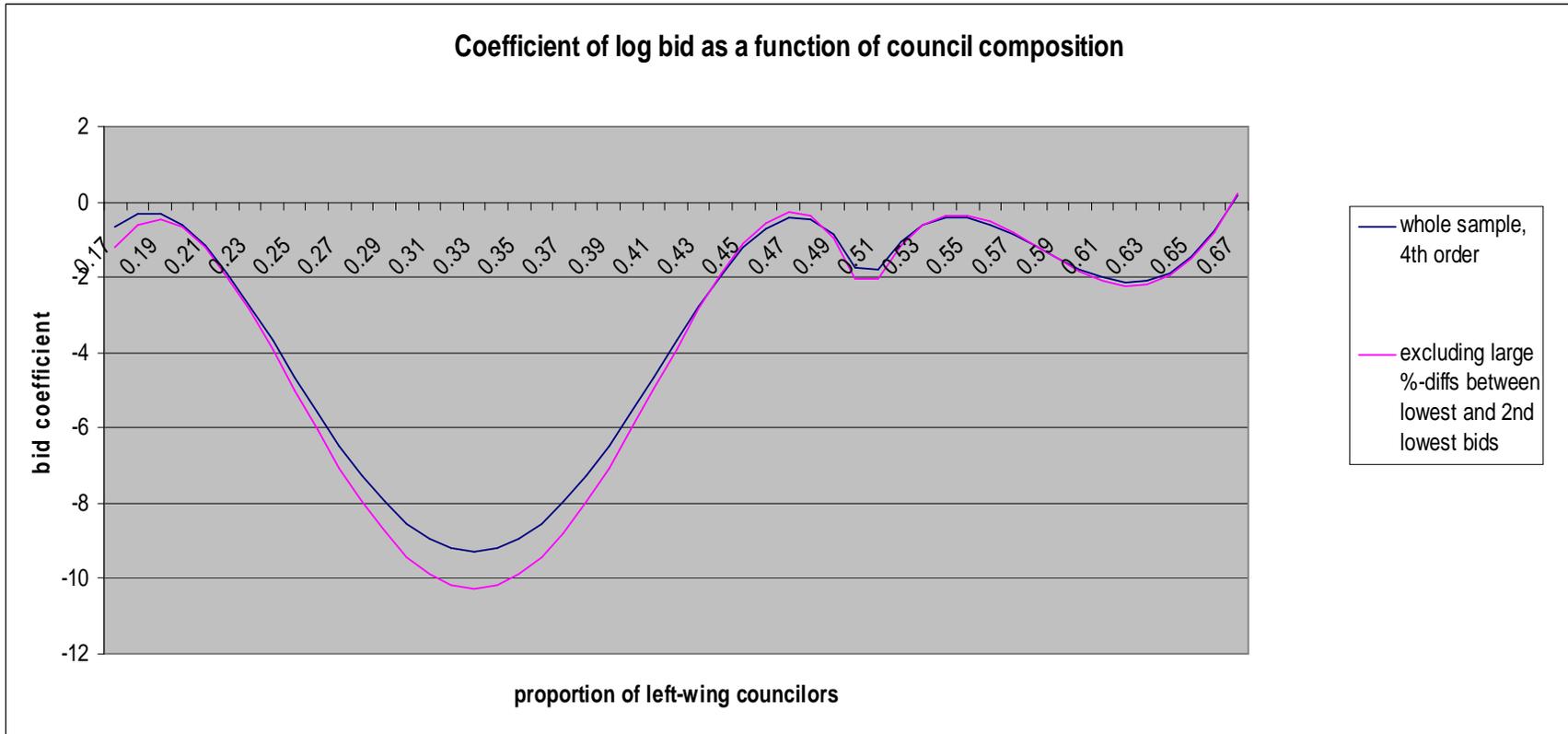


Figure 1. The effect of council composition on the coefficient of log(bid).

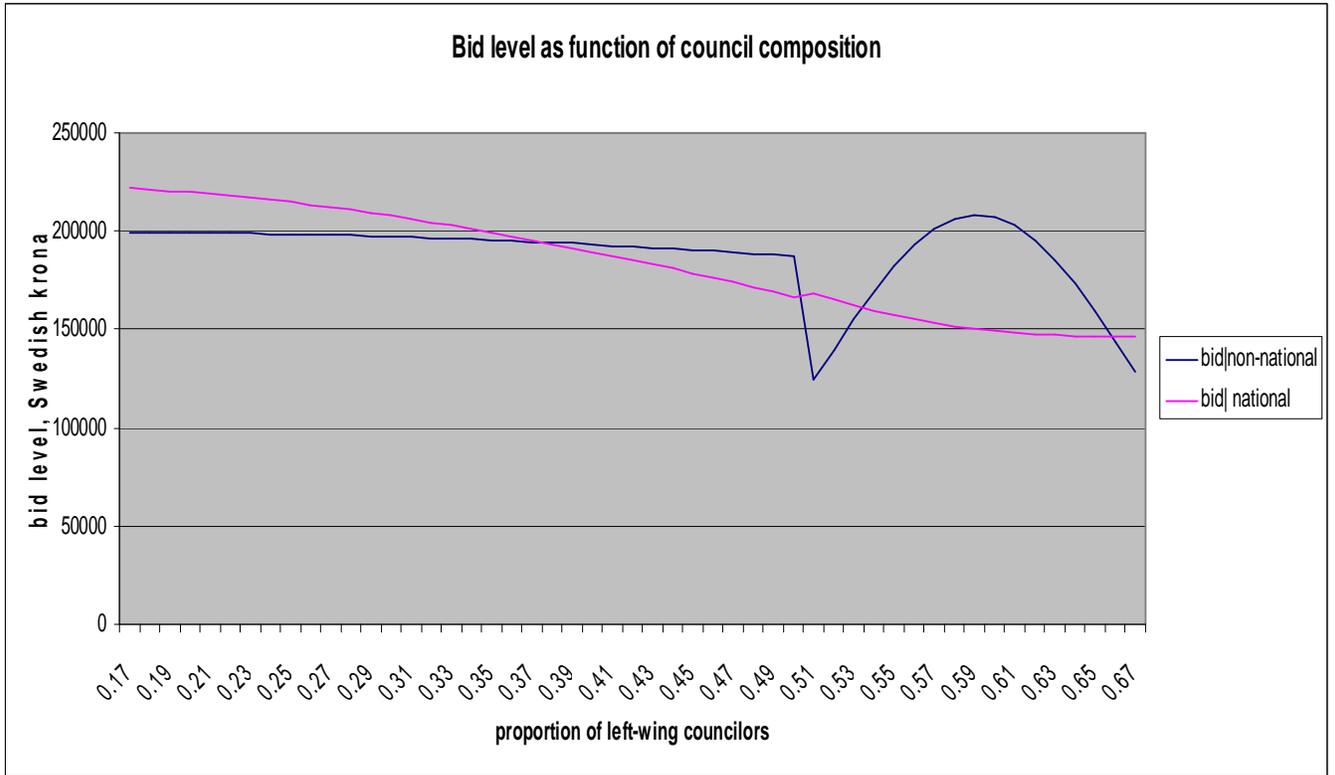


Figure 2. Bid level as function of council composition.

Appendix

A. Copy of relevant examples of procurement documents

Figure A1. Example of a typical contract notice providing evidence of quality monitoring and evaluation criteria. In Swedish with relevant text from the paper cited in the boxes.

Förbrukningsmaterial	Förbrukningsmaterial enligt V00-V02 (toapapper, pappershanddukar, tvål, engångsmuggar etc) anskaffas och betalas av B.
Kompletterande förfrågningsunderlag	Finner anbudsgivare att förfrågningsunderlaget i något avseende är oklart, ska eventuell förfrågan ställas till B:s ombud under anbudstiden. Endast skriftlig kompletterande uppgift, lämnad av B:s ombud under anbudstiden, är bindande för både B och anbudsgivare. B förutsätter att anbudsgivare skaffar kompletterande uppgifter på platsen, för bedömning av arbetets omfattning för komplett anbud.
Ändringar eller tilläggsarbeten	Ändrings- eller tilläggsarbeten ska anses beordrade först sedan de skriftligt beställts av B:s ombud under entreprenadtiden.
Ersättning för ändrings- eller tilläggsarbeten	Avgående eller tillkommande arbeten ska i första hand prissättas enligt avtalat timpris. I andra hand genom förhandlingar.
Kvalitetskontroll	Kvalitetskontroll, där representanter för B och E deltar, ska på E:s initiativ ske en gång per månad varvid protokoll ska föras.
Anbudets form och innehåll	Anbud ska för att gälla vara lämnat enligt bifogat anbudsformulär. Avgivet anbud ska avse år 1 (12 månader) med rätt till indexuppräkning för resterande del av avtalstiden.
Indexreglering	Entreprenadsmånad 1996 förändras med juni 1997.
Kontraktshandling	Kontrakt ska tecknas före entreprenadens början.
Ansvarig arbetsledning	E ska tillhandahålla fullt yrkeskunnig arbetsledning.
Skada	
Betalningsplan	
Beställarens rätt att häva	
Städutrymmen	Tillhandahålls av Arvika kommun.
Referenser	Referensobjekt anges i anbudet.
Anbudsbedömning	Arvika kommun kommer att anta det anbud som är totalekonomiskt mest fördelaktigt med hänsyn till pris, kvalitet, kompetens och seriositet. Kriterierna är inte rangordnade. Anbud kan komma att antas utan föregående förhandling.

Quality Monitoring:

"Similarly, the monitoring of cleaning is often specified in detail..."

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till

Evaluation criteria:

"Second, the lowest bid should win. The exception is if the municipality deems that some other bid is "most advantageous economically" when quality, environmental aspects, service and maintenance etc. were taken into account in addition to price. These criteria should have been posted in advance of the bidding but the weight attached to each criterion in the evaluation is in the procurements studied here in general unknown to the bidders prior to the bidding.

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Figure A2. Extract from a typical technical specification. Description of different cleaning methods providing evidence of the assumption of difficulties in quality differentiation and assumption of private costs.

O12

Torr mopning, fri yta

01 Torr mopning fri yta

Förutsättningar:
Torr mopning eller mopning

Technical specification:

"Besides including the detailed description of the premises to be cleaned,

O13

Våt mopning, fri yta

01 Våt mopning

Förutsättningar:
Fukt

the frequency of cleaning, cleaning method, cleaning substances that are allowed/preferred, and the cleaning equipment that is to be employed, they also go into much more minute detail."

tiden ingår tvättning eller avspolning av använda moppgarn.

O21

Maskinskurning

01 Maskinskurning

Förutsättningar:

Skurning med skur- eller kombimaskin inkl. förberedelser och avslutning. Tiden gäller stora ytor över 200 m². Skall mindre ytor skuras med maskin bör tiden höjas på grund av ställtiden.

O22

Mopning med moped

01 Mopning med moped

Förutsättningar:

Mopning med moped på stora ytor som gymnastiksal, långa och breda korridorer. I tiden ingår manuell mopning av ytor som ej är åtkomliga med mopeden.

O23

Golvård (High-Speed)

01 Golvård (High-Speed)

Förutsättningar:

Golvård med High-Speed maskin, (före polering bör golven rengöras noggrant).

O61

Inredningstvättning

01 Tvättning av inredning

Förutsättningar:

Tvättning av inredning i entré, kapprum, korridorer. I tiden ingår att avfläcka glaspartier, torkning av lister, radiatorer, avfläckning av väggar, speglar m.m.

Description of different cleaning methods.

Figure A3. Extract from a typical technical specification. Description of frequency requirements for each space providing evidence of the assumption of difficulties in quality differentiation and assumption of private costs.

KommunTeknik KOMMUNTEKNIK		ATGÄRDSLISTA		REPAB Fastighetssystem 96-05-31 Sida 1	
Företag:	1	KommunTeknik		Rapporttyp:	Lista
Objekt:	1207	NYA AGNETEBERGSKOLAN		Variant:	Utan tim. o kostn.
Byggnad:	A				
Atgård	Atgård	Vecka	Vecka	Lokatyp:	Sv.
		fr.o.m	t.o.m		grad
Hyresenhet:	SH			L	
Rum:	1001 VF			Rumstyp:	ENTRE
O13	Våtmoppning, fri yta	14,2 m ²	1 52 1 gång per vecka		1,00
O61	Inrednings tvättning	14,2 m ²	1 52 1 gång per vecka		1,00
Rum:	1002 TORGET				
M53	Tömning av papperskorgar				
O21	Maskinskurning				
O22	Mopning med moped				
O61	Inrednings tvättning				
Rum:	1003 TRAPPA				
O12	Tormoppning, fri yta				
O13	Våtmoppning, fri yta				
Rum:	1004 TRAPPA				
O12	Tormoppning, fri yta				
O13	Våtmoppning, fri yta				
Rum:	1005 BIBLIOTEK			Rumstyp:	GRUPP
M12	Tormoppning, möblerad yta	73,9 m ²	1 52 4 gånger per vecka		1,00
M13	Våtmoppning, möblerad yta	73,9 m ²	1 52 1 gång per vecka		1,00
M61	Tvättning inredn och invent	73,9 m ²	1 52 1 gång per vecka		1,00
VX9	Tömning av papperskorgar	2,0 st	1 52 5 gånger per vecka		1,00
Rum:	1006 ARBETSNUM			Rumstyp:	KON
M12	Tormoppning, möblerad yta	8,5 m ²	1 52 1 gång per vecka		1,00
M13	Våtmoppning, möblerad yta	8,5 m ²	1 52 1 gång per vecka		1,00
M61	Tvättning inredn och invent	8,5 m ²	1 52 1 gång per vecka		1,00
VX9	Tömning av papperskorgar	1,0 st	1 52 5 gånger per vecka		1,00
Rum:	1007 ELEVKÄR			Rumstyp:	GRUPP
M12	Tormoppning, möblerad yta	8,0 m ²	1 52 varannan dag		1,00
M13	Våtmoppning, möblerad yta	8,0 m ²	1 52 1 gång per vecka		1,00
M61	Tvättning inredn och invent	8,0 m ²	1 52 1 gång per vecka		1,00
VX9	Tömning av papperskorgar	1,0 st	1 52 5 gånger per vecka		1,00
Rum:	1008 CAFÉ			Rumstyp:	CAFE
M13	Våtmoppning, möblerad yta	12,6 m ²	1 52 5 gånger per vecka		1,00
M53	Tömning av papperskorgar	1,0 st	1 52 5 gånger per vecka		1,00
O61	Inrednings tvättning	12,6 m ²	1 52 1 gång per år		1,00
Rum:	1009 ELEVRUM/FRD			Rumstyp:	FÖR
M12	Tormoppning, möblerad yta	16,8 m ²	1 52 4 gånger per vecka		1,00
M13	Våtmoppning, möblerad yta	16,8 m ²	1 52 1 gång per vecka		1,00
Rum:	1010 ELEVRUM			Rumstyp:	ALL
M12	Tormoppning, möblerad yta	50,3 m ²	1 52 3 gånger per vecka		1,00
M13	Våtmoppning, möblerad yta	50,3 m ²	1 52 2 gånger per vecka		1,00
M53	Tömning av papperskorgar	1,0 st	1 52 5 gånger per vecka		1,00
M61	Tvättning inredn och invent	50,3 m ²	1 52 1 gång per vecka		1,00
Rum:	1011 KORRIDOR			Rumstyp:	KORR
O21	Maskinskurning	42,4 m ²	1 52 3 gånger per vecka		1,00
O22	Mopning med moped	42,4 m ²	1 52 2 gånger per vecka		1,00
Rum:	1012 UPPSTÄLLN.PL. HCP.FORDON			Rumstyp:	FÖR
M12	Tormoppning, möblerad yta	22,1 m ²	1 52 1 gång per vecka		1,00
M13	Våtmoppning, möblerad yta	22,1 m ²	1 52 1 gång per vecka		1,00
Rum:	1013 TRAPPA			Rumstyp:	TRA
O11	Dammsugning, fri yta	3,8 m ²	1 52 2 gånger per år		1,00
O13	Våtmoppning, fri yta	3,8 m ²	1 52 2 gånger per år		1,00

List of tasks for each space. The premises to be cleaned is a school.

Description of frequency requirement for each space:
 "As if this was not enough, in several instances the procurement instructions go into great detail as to how each space (e.g. classroom, toilet) is to be cleaned."

Figure A4. Example of a typical bid providing evidence of the assumption of no ex ante quality differences. In Swedish with relevant text from the paper cited in the box without arrow and relevant translations in additional boxes

A "typical" bid:

"In addition to the procurement instructions, we obtained copies of the bids. The bids, almost without exception (...) only detail i) the object for which firm *i* is bidding, ii) the name and contact information of the bidder, iii) and the price,..."

ANBU DSFORMULÄR

Procuring entity.

Arvika kommun
Ekonomiavdelningen
671 81 ARVIKA

OFFERT 791026
28

The object for which firm *i* is bidding.

Städentreprenad - nya Agnetebergsskolan

Undertecknad erbjuder sig härmed att utföra städentreprenad i enlighet med anbudsinbjudan och PM daterade 1994-08-17 till en kostnad av

...562000.....kr/år år 1.

Ändring- eller tillägsarbeten debiteras med155.....kronor per timme (år 1).

År 2 och 3 regleras i daterad 1994-08-17.

I ovanstående priser i stadsgad mervärdesskatt tillkommer.

Vårt företag har F-skattsedel.

Övrigt:.....

Contact information. The firm identity is deleted due to that strict confidence was assured when the data was collected.

oktober...

Behörig firmatecknare

Firmans namn	
Firmans adress	
Firmans postadress	
Telefon	054-563...
Fax	054-563...

The bid in Swedish kronor (annual price).

