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Thèse intitulée
Technical criteria for the procurement of architectural services in Brazil

Présentée par
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La thèse intitulée

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“It’s all very much more complicated than you would imagine at first sight.”

Wittgenstein

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Abstract

Public procurement accounts for up to 15% of the world's gross domestic product. Because of this sheer volume of spending, the OECD recommends that clear guidelines be developed to handle procurement procedures, aiming to foster efficiency, prevent corruption and establish trust. Most particularly, the OECD identifies a need for the development of sound technical criteria for the awarding process in public contracts. This need is even more important for public infrastructure, for which governments spend, annually, more than ten trillion US dollars. It is not clear, though, what are sound technical criteria.

To date, research on technical criteria for public infrastructure procurement has been more than scarce, with only a handful of articles having been written on the subject. Scholars have overlooked the confusion surrounding how to incorporate technical criteria into procurement procedures, confusion that may generate delays, inefficient public expenditure, and mediocre quality of work. In Brazil only, reports from the Federal Audit Office found irregularities in more than 75% of procurement procedures for construction, a majority of those being linked to the poor quality of technical documentation given to contractors working on public infrastructure. Moreover, audits conducted by the Brazilian federal government on delayed infrastructure works showed that the low quality of technical documentation was the root cause of those delays in 47% of the cases.

This research looks at an often-disregarded phase in the procurement process for public infrastructure, namely the provision of architectural services that precedes construction work itself. It identifies the discretion enjoyed by procurement officials in the interpretation of the country's confusing regulatory framework pertaining to technical criteria as an important factor leading to the high level of irregularities and delays in infrastructure work.

The study of public procurement is interdisciplinary by nature. Borrowing concepts from the literature on public procurement, administrative law and architecture, this research uses street-level bureaucracy theory, and especially the concept of administrative discretion, as a framework for assessing everyday practices related to the choice of technical criteria for architectural services in Brazil's public service.

This is a descriptive study in which documentary research was employed for collecting data, whilst content analysis and pattern coding were employed for analyzing the data. Results provide a detailed portrait of current practices, organized around technical criteria and the interrelated concepts of services procured and solicitation methods. They confirm that misuse of existing regulations on technical criteria is widespread in the procurement of architectural services in Brazil, which could explain the large numbers of irregularities, cost-overruns and delays.

Grounded in practice, this research also (1) confirms the usefulness of street-level bureaucracy theory as a framework applicable to other types of public officials; (2) introduces a method for analyzing and collecting data on technical criteria for architectural

services and other types of services; and (3) makes recommendations for policy makers and practicians regarding technical criteria. Furthermore, the portrait of current practices drawn here enables future comparative studies concerning different jurisdictions or different services.

Keywords: public procurement, street-level bureaucracy, administrative law, architecture, discretion, *Comprasnet*

Résumé

La valeur des contrats publics compte pour près de 15% du PIB mondial. En raison de l'ampleur de ces dépenses, l'OCDE recommande que soient développées des balises claires afin de guider les processus d'appels d'offres publics de manière à améliorer l'efficience des investissements publics, combattre la corruption et établir la confiance des parties prenantes. Plus particulièrement, l'OCDE identifie le besoin d'établir des critères techniques rigoureux applicables tout au long du processus d'attribution des contrats publics. Ceci est d'autant plus pertinent en matière d'infrastructures, pour lesquelles les gouvernements dépensent, annuellement, plus de 10 000 milliards de dollars américains.

Jusqu'à présent, la recherche sur ce que pourraient constituer de tels « critères techniques rigoureux » pour les contrats publics d'infrastructures s'est avérée plus que discrète, seulement un petit nombre d'articles ayant été publiés sur la question. Peu de chercheurs se sont intéressés à la difficile question de l'intégration des critères techniques, qui est liée aux délais dans la livraison des projets, à une inefficience dans les investissements publics et à des projets de qualité médiocre. Au Brésil, des analyses du Bureau des enquêtes du gouvernement fédéral révèlent des irrégularités dans plus de 75% des procédures d'appels d'offres pour les projets de construction, une majorité de celles-ci étant attribuables à la faible qualité des documents techniques reçus par les entrepreneurs responsables de la construction des ouvrages. De plus, un audit récent mené par le gouvernement fédéral du Brésil au sujet des délais dans la livraison des travaux d'infrastructures montrait que la piètre qualité de la documentation technique constituait la cause première des délais de livraison dans 47% des cas.

Cette recherche analyse un aspect peu documenté du processus d'appels d'offre en matière d'infrastructures publiques, à savoir la fourniture des services d'architectures (plans et devis), une étape précédant la construction des ouvrages. Cette recherche suggère que la discrétion dont jouissent les responsables des processus d'appels d'offres dans l'interprétation du cadre réglementaire brésilien – un cadre marqué par la complexité et par l'incohérence – est un des facteurs à l'origine d'irrégularités et de délais dans les travaux d'infrastructures publics.

L'étude des processus d'appels d'offres publics est par nature interdisciplinaire. Empruntant des concepts à la littérature sur les marchés publics, le droit administratif et le domaine de l'architecture, cette recherche mobilise la théorie de *street-level bureaucracy*, et en particulier le concept de discrétion administrative, comme cadre d'analyse des pratiques usuelles en matière de choix des critères techniques dans le domaine des services d'architecture au sein de la fonction publique brésilienne.

La présente recherche doctorale peut être décrite comme une étude descriptive. Une recherche documentaire extensive dans les bases de données du gouvernement fédéral brésilien a été utilisée pour collecter des données, tandis que l'analyse du contenu et le *pattern coding* ont été utilisés pour les analyser. Les résultats fournissent un portrait des

pratiques actuelles, organisés autour des critères techniques employés, ainsi que des concepts interreliés de services et de méthodes de sollicitation. L'analyse de ces pratiques révèle que le mauvais usage du cadre réglementaire brésilien pourrait expliquer une bonne partie des irrégularités, des dépassements de coûts et des délais courants dans la livraison des projets d'infrastructures publiques au Brésil.

Ancrée dans la pratique, cette recherche (1) confirme l'applicabilité de la théorie de *street-level bureaucracy* à d'autres catégories d'employé.es de l'État que ceux et celles œuvrant en première ligne ; (2) propose une méthode pour extraire et analyser les données portant sur les critères techniques pour les services d'architecture et d'autres types de services et; (3) élabore des recommandations, pour les décideurs politiques ainsi que pour les praticiens, concernant le choix de tels critères techniques. Finalement, la recherche brosse un tableau des pratiques courantes au Brésil, tableau pouvant offrir un éclairage en vue d'autres études dans d'autres juridictions ou même sur d'autres services faisant l'objet d'appels d'offres publics.

Mots-clés: marchés publics, *street-level bureaucracy*, droit administratif, architecture, discretion, *Comprasnet*

Technical criteria for the procurement of architectural services in Brazil

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List of acronyms

AGU:	Office of the Attorney General (*Advocacia-Geral da União*)
API:	Application Programming Interface
BCB:	Brazilian Central Bank (*Banco Central do Brasil*)
CAU-BR:	Brazilian Council of Architecture and Urban Planning (*Conselho de Arquitetura e Urbanismo do Brasil*)
CATSER:	Services catalogue (*Catálogo de serviços*)
CREA:	Brazilian Council of Engineering and Agronomy (*Conselho Regional de Engenharia e Agronomia*)
DB:	Design-build approach
DBB:	Design-bid-build approach
Demap:	BCB's Department of Infrastructure (*Departamento de Infraestrutura*)
Enap:	National School of Public Administration – Brazil (*Escola Nacional de Administração Pública*)
ENAP:	National School of Public Administration – Québec (*École nationale d'administration publique*)
IAB:	Brazilian Institute of Architects (*Instituto de Arquitetos do Brasil*)
IBRAOP:	Brazilian Institute of Public Works Auditing (*Instituto Brasileiro de Auditoria de Obras Públicas*)
IN-5:	Normative Instruction 5 (*Instruçao Normativa* 5)
IPHAN:	Institute of National Historical and Artistic Heritage (*Instituto do Patrimônio Histórico e Artístico Nacional*)
MP:	Ministry of Planning, Development and Management (*Ministério do Planejamento, Desenvolvimento e Gestão*)
MPOG:	Ministry of Planning, Budget and Management (*Ministério do Planejamento, Orçamento e Gestão*)
OECD:	Organisation for Economic Co-operation and Development
PAC:	Program for Economic Acceleration (*Programa de Aceleração do Crescimento*)
PPP:	Public-private partnership
RDC:	Differentiated regime for public procurement (*regime diferenciado de contrataçoes*)
SRP:	Formalized price system (*sistema de registro de preços*)
STJ:	Superior Court of Justice (*Superior Tribunal de Justiça*)
TCU:	Federal Audit Office (*Tribunal de Contas da Uniao*)
UASG:	Administrative unit for public procurement (*Unidade administrativa de serviços gerais)*
UNCITRAL:	United Nations Commission on International Trade Law

Foreword

I have a degree in architecture and I have worked for more than twenty years for the Brazilian Central Bank (BCB), the public organization whose mission is "to ensure the stability of the currency's purchasing power and a solid and efficient financial system" (BCB 2018). Throughout my career at BCB, I have served in different fields, from an administrative law analyst to an information technology coordinator. From 2013 to 2015, I resumed my original profession working as an architect and procurement official in BCB's Department of Infrastructure (Demap). In this position, I performed two main duties: providing architectural services in the form of projects and producing procurement documents to obtain architectural services and construction.

One of the major problems I confronted concerning this second task is the difficulty to devise technical criteria to select architects in public procurement. This research is about these criteria.

While drafting this thesis, I faced problems with translation and different meanings of procurement terminology in Portuguese, English and French. To improve harmonization of procurement terms, I employed, whenever possible, the terminology proposed by the United Nations in their Model Law on Public Procurement (UNCITRAL 2014, Art. 2). Otherwise, I have employed terms proposed by specialized dictionaries, two in particular: *Dicionário de Direito, Economia e Contabilidade Português-Inglês / Inglês-Português* (Castro 2010) and *Black's Law Dictionary* (Garner 2014).

In this study, I often refer to monetary values in Brazilian currency. Exchange rates may vary substantially. To provide a reference for the reader, I calculated the mean value of the exchange rate between Brazilian reais (R$) and Canadian dollars (C$) for year 2017: C$ 1,00 = R$ 2,46[1].

[1] Source: https://www.bcb.gov.br/estabilidadefinanceira/historicocotacoes

I also frequently refer to laws and governmental regulations. For citing these sources, I followed ENAP's *Guide de présentation des citations et des références bibliographiques* (Sylvain 2006, 20), which provides detailed instructions on the matter.

Finally, on April 1st, 2021, after the completion of this thesis, a new law on public procurement was enacted in Brazil – Law 14.133[2]. The features of this law which concern this research are discussed in Section 6.2.8. The promulgation of Law 14.133 does not invalidate the results of this research, since it establishes that extant laws on public procurement will be revoked only in two years. This time span provides an essential period for the adoption of necessary regulations and for the administration to get acquainted with the new procedures. Thus, it may take a long time for desired changes in practices regarding public procurement to happen. Furthermore, the enactment itself of Law 14.133 can be seen as a corroboration of the excessive complexity of the extant regulatory framework. In this vein, one of the main issues revealed in this research was the contradiction between laws and regulations. The recommendations I present in Section 10.4 concerning the regulatory framework may help policy makers in devising regulations drawn on Law 14.133. I intend to submit these recommendations to the ongoing consultations on this subject. Until new regulations are adopted, existing contradictions will remain.

[2] http://www.planalto.gov.br/ccivil_03/_Ato2019-2022/2021/Lei/L14133.htm

1 Introduction

The subject of technical criteria for selection of providers of architectural services may seem like an obscure issue involving a technicality that hardly stirs interest. However, it surfaces on newspapers occasionally, in Brazil as well as in Canada (Fabrini and Boldrini 2018; Caillou 2018; Myles 2018). In both cases, it has been argued that proposed changes in current criteria for selection of bidders might backfire, preventing most skilled bidders from winning the contracts. An inquiry on these criteria in the Brazilian context is more so opportune, given that a proposition updating federal regulations on the matter is under study (Senado Federal 2020).

Technical criteria for procurement of architectural services are important because they improve the chances of good architectural projects, which in turn will result in greater satisfaction for users of a building. Moreover, the quality of an architectural project has an impact on the cost of construction and on the cost of maintenance of buildings, which are significant governmental expenditures.

In general, procurement officials hold discretion for devising technical criteria. However, devising criteria for architectural services is challenging due to the inherent complexity of these services. This challenge concerns not only choosing a criterion that is relevant to the service procured, but also establishing how much of this criterion should be required. There are few scholarly studies on the matter, but none of them in the Brazilian context.

Since technical criteria can be seen as a matter of discretion, I will employ street-level bureaucracy theory for analyzing this subject. This theory focuses on discretion as a generator of discrepancies between intended policies and actual policies, the latter understood as the dominant patterns of discretionary decisions. I will thus base my investigation on these concepts.

Public administration is inherently an interdisciplinary field (Raadschelders 2013, 202). Accordingly, public procurement of architectural services is a phenomenon that cannot be

limited to the discipline of public administration. In this research, the nature of services procured stems from the field of architecture, and public procurement is a highly regulated activity, which calls for the field of administrative law. This inquiry can thus be seen as an interdisciplinary study (Klein 2010, 16), linking theory from public administration to concepts from administrative law with a focus on architectural services.

The main question, drawn from street-level bureaucracy theory, is *which actual policies concerning technical criteria for procurement of architectural services deviate from intended policies on procurement*? To unveil these actual policies, I had to explore the current regulatory framework and investigate practices in procurement that diverge from the regulatory framework, focusing on the expected coherence between criteria employed, services procured and solicitation methods.

The research approach I took for disclosing these discrepancies was a descriptive study, based on a documentary research as main data-collection strategy. The documents used come from a governmental database. Although these documents are public and accessible, retrieving the information relevant for this study was an elaborate task. This study provides a detailed account on how these documents can be obtained and sorted out, which can be of great service for future studies on public procurement in Brazil. For analyzing the data, I employed basic content analysis and pattern coding. These methods made possible describing current practices in public procurement and unveiling the discrepancies between intended policies and actual policies. Furthermore, I investigated selected cases of procurement procedures, which afforded meaningful insights on the negative outcomes of arbitrary practices.

Results have confirmed that there are discrepancies between intended policies and actual policies, and that such discrepancies are widespread in procurement of architectural services in Brazil. Some practices revealed in this study may lead to the choice of unskilled, underpaid bidders, which in turn will hardly produce high-quality projects. These practices include the use of imprecise criteria, the arbitrary use of solicitation methods, the procurement of different services as if they were only one service, and the incomplete

specification of services. This situation is likely to yield a negative effect on procuring entities' outcomes. The roots of these problems seem to be procurement officials' unbounded administrative discretion, coupled with a complex legal context, a shortage of needed skills and little oversight.

The main contribution of this thesis is the portrait of current practices in procurement, drawing attention to practices that are not in line with intended policies. This portrait enables recommendations for policy-makers, with the goal of improving the Brazilian procurement system, as well as for procurement officials, aiming to reduce decisions that could be considered arbitrary. In what regards research design, this research proposes a method for collecting data that can also be used for other types of services. The main source of data are documents which are publicly available, but which had not been used for academic research. These documents were a valuable source of information, revealing potential problems stemming from procurement officials' discretion. Concerning the theory used, this work endorses employing street-level bureaucracy theory as an efficient framework for analyzing practices of other types of bureaucrats, such as procurement officials. The successful use of this theory in conjunction with concepts from administrative law and architecture reinforces its utility in public procurement research. Finally, I propose a conceptual framework for analyzing technical criteria in relation to one of architecture's dimensions. From this framework, it can be argued that relevant criteria for architectural services are those that correctly translate the technical dimension of architecture into technical criteria.

1.1 Research boundaries

At the outset, it might be helpful for the reader to make clear some limitations concerning the data analyzed in this thesis, as I describe below.

I realized this research on technical criteria for procurement of architectural services in Brazil by analyzing procurement documents available in a governmental public database named *Comprasnet*. This database holds information on all procurement procedures

undertaken by the three branches – legislative, executive and judiciary – of the federal administration. To assure the feasibility of this research, I had to limit this inquiry to procedures carried out in 2017. Furthermore, architectural services in this inquiry will be limited to services that, according to Brazilian regulations, can only be performed by architects, thus excluding services that could also be performed by engineers or other professionals.

Although architectural services may encompass an aesthetic dimension, as I will discuss in Section 4.1.2, this study does not touch on aesthetic criteria for such services. This research is focused instead on technical criteria, which are of a different nature than aesthetic criteria. Moreover, in the literature review I made on public procurement for architectural services, aesthetic criteria did not show up as an issue in Brazil. This is probably because, according to the framework law regulating public procurement, aesthetic criteria may only be employed in prize competitions, which are very rare – there were no prize competitions for architectural services in the *Comprasnet* database during the period studied. Finally, the study of aesthetic criteria would require an assessment of subjective judgements that seem most fit for research in aesthetics or in history of art, not in public administration (Wittgenstein in Monk 1990, 404; Foisy, Thérien, and Trépanier 2009, 9).

This research also excludes procurement that involves public-private partnerships (PPP) for construction. They were excluded because, in this type of arrangement, it is the private partner who will engage the architects. The public entity will only choose the private partner responsible for the whole contract. Furthermore, in Brazil, Law 11.079 (Brasil 2010a, Art. 2) bans PPPs for public construction works.

As a last limitation of this study, I focus on what technical criteria procurement officials devise, but I do not delve into how procurement officials evaluate bidders' compliance with the criteria devised. In *Comprasnet*, all documents submitted by bidders are public. Such documents not only are assessed by the procuring entities but also by the unsuccessful bidders, who may protest when submitted documents are not compliant. Hence, it seems reasonable to consider that, when there are no protests, procurement officials correctly

judged submitted documents. Although inquiry on the matter, not necessarily restricted to architectural services, could provide additional knowledge on procurement officials' practices, it would be outside the scope of this research[3].

1.2 Overview of chapters

This thesis is divided in eleven chapters, including this introduction.

In *Chapter 2* I present the issue and the purpose of this study. Drawing on scholarly literature, I also introduce its two main concepts, namely technical criteria and architectural services, alongside the notion of judgement, which permeates the concept of technical criteria.

In *Chapter 3* I provide an overview of the literature on public procurement, discussing the main background concepts that will be employed in this research. Here I describe how a procurement procedure is carried out, and I elaborate on the notion of procurement system, which will be useful for analyzing the Brazilian context.

Chapter 4 is dedicated to previous research on procurement of architectural services. I examine the nature of these services and how this nature can be translated into criteria. I also review the literature dealing specifically with technical criteria for procurement of architectural services.

In *Chapter 5* I present the theoretical framework of this study. I start by outlining the concept of discretion and then I review the theory of street-level bureaucracy, which calls for an examination of intended policies and actual policies. In addition, I discuss the application of the theory in this research, and I present the research questions developed from this application.

[3] Still, in this study, I analyzed submitted documents in relevant cases, as I will describe in Sections 9.6 and 9.10).

In *Chapter 6* I assess the Brazilian procurement system, using the concepts presented in *Chapter 3*. This chapter is organized into two parts. Part one is dedicated to the procurement environment, while part two is dedicated to the regulatory framework, encompassing rules on procurement, architecture and transparency. These analyses are based on scholarly and grey literature, as well as on the sources of law in Brazil. This chapter is intended to portray the context in which this research was carried out.

In *Chapter 7* I address intended policies on procurement for architectural services in Brazil, drawing on the street-level bureaucracy theory and on the regulatory framework.

Chapter 8 is dedicated to the research design used for the empirical inquiry on practices in procurement of architectural services. I present the data-collection strategy as well as the data-analytic strategies. I also suggest how the research design employed could be used for other types of services.

Chapter 9 describes the results of the empirical inquiry, reviewing practices in procurement of architectural services in light of intended policies. This review focuses on choices of technical criteria and the interrelated concepts of services procured and solicitation methods.

In *Chapter 10* I discuss the results, underlining discrepancies between intended policies and actual policies, as suggested by the theoretical framework. Additionally, I provide recommendations for policy-makers and for practitioners concerning procurement of architectural services in Brazil.

Finally, I conclude in *Chapter 11*, assessing the implications of this inquiry for street-level bureaucracy theory and contributions to the literature on public procurement. Furthermore, I report on the original aspects of this study as well as on its limitations, and I propose some avenues for future research.

2 Research problem

In the first section of this chapter, I describe the purpose of my research, drawing from scholarly and grey literature. Then I present the two main concepts of this inquiry, namely technical criteria and architectural services. Finally, I take on the concept of judgement, which is intrinsic to criteria and which is particularly troublesome for the procurement of architectural services.

2.1 Research purpose

Public procurement is a major driver of economies, accounting for up to 15% of the world's gross domestic product (Thai 2001, 24; Transparency International 2006, 7; Nakabayashi 2009, 111; Bergman and Lundberg 2011, 2; Chong, Staropoli, and Yvrande-Billon 2014, 2; Cernat and Kutlina-Dimitrova 2015, 1). One important item in procurement is construction, in which public and private clients spend roughly ten trillion US dollars annually, according to a 2017 study (Barbosa et al. 2017, 4).

In Brazil, the government's budget for construction in 2017 foresaw an expenditure of R$ 81.4 billion (Rêgo 2017). Nevertheless, there are signs that a good chunk of this money is wasted, and not only due to the corruption scandals to which Brazilians became used (Albuquerque, Mendes Primo, and Pereira 2015, 836; Watts 2017; Carneiro 2018). In its 2016 yearly report, the Federal Audit Office – TCU (*Tribunal de contas da União*) found irregularities in 75% of procurement procedures for construction, and 24% of these irregularities regarded technical documentation (TCU 2017). These numbers worsened in 2017, when 80% of procurement procedures for construction had irregularities and 54% of these irregularities concerned technical documentation (TCU 2018). Furthermore, an audit of paralyzed construction works financed by the Brazilian federal government showed that the low quality of technical documentation was the root of the paralysation in 47% of the cases in 2018 (TCU 2019a). That is not surprising, since deficient or non-existent drawings, specifications, budgets and schedules seem to be a chronic problem in public

procurement for construction in the country (Zanferdini 2011, 141; Amaral 2014, 1; Fiuza and Medeiros 2014, 24; Fernandes 2016, 139).

The issue of low-quality documentation for construction is not restricted to the Brazilian context. In general, the bad quality of technical documentation finds its roots in unskilled professionals – architects or engineers – responsible for the project (Sporrong 2011, 59; Fernandes 2016, 134). In turn, when the project is contracted out, the assignment of a skilled or unskilled professional depends on the criteria used to select bidders in a procurement procedure (Sporrong 2011, 60; Volker 2012, 757; Ogachi 2014, 84; TCU 2019b, 27). Unskilled professionals producing low-quality documentation may lead not only to low-quality construction, but also to costly administrative or judicial protests, which in many cases invalidate the entire procurement procedure (Radziszewska-Zielina 2011, 274; Rajeh, Tookey, and Rotimi 2015, 244). I illustrate these issues on Figure 1.

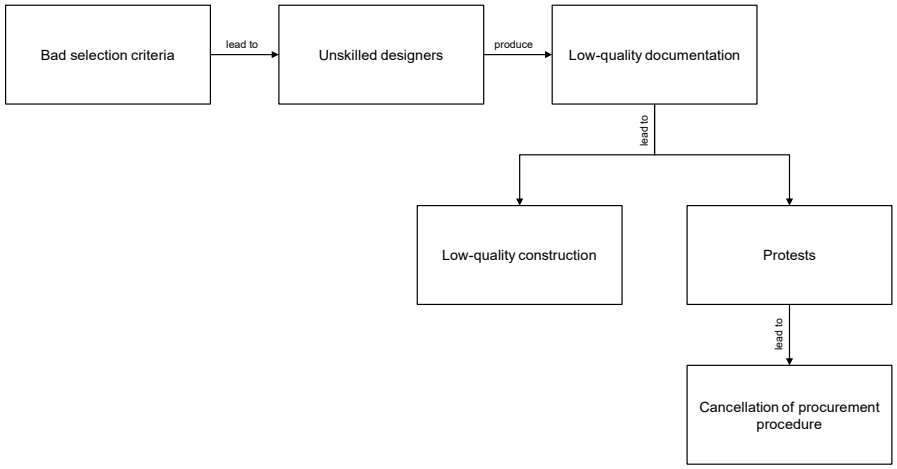


Figure 1 - Effects of bad selection criteria

Selecting a professional – responsible for the project – that is technically capable is thus a critical activity preceding procurement for construction (Ochrana and Hrnčířová 2015, 43; Shalwani 2017, 10). Nevertheless, this critical activity is a very challenging task for procurement officials, as I describe below (Transparency International 2006, 42; Chong, Staropoli, and Yvrande-Billon 2014, 5; Ruparathna and Hewage 2015, 7; Dodd, Garbarino, and Caldas 2016, 16).

It is suggested that procurement officials should select service providers by means of objective, evidence-based criteria (Gershon 1999, 11; Arrowsmith, Linarelli, and Wallace Jr 2000, 440; Dobbs et al. 2013, 5; Costa Jr 2016, 109). However, devising objective, evidence-based criteria may already be difficult in procurement of goods, and it is way more problematic in procurement of services (Simon [1947] 1997, 239; McCue, Prier, and Steinfeld 2020, 13). In what concerns procurement of architectural services, objective criteria are, in some cases, considered useless for the selection of skilled architects (Volker 2012, 756; Volker and Meel 2012, 20). This uselessness may be explained by the fact that, in architecture, every service presents different technical challenges, including physical and legal constraints, limited budget, and client's capacity. Thus, each service would call upon specific competencies, such as knowledge of the legal framework in force on the site that will be developed, or interpersonal skills for dealing with ill-informed clients (Lewis 1985, 222; Larson 1993, 7; Schaik 2010, 14). This type of ability cannot always be translated into objective criteria (Holt 2010, 317; Tschumi 2012, 747). Hence, depending on the service, even frequently used criteria, such as architects' experience or structure of the bidding firm, may not be suitable for selecting the most skilled architect (Lewis 1985, 199; Volker and Meel 2012, 24; McCue, Prier, and Steinfeld 2020, 13).

Procurement officials have generally responded to this difficulty by adopting two strategies. They may ignore all subjectivity inherent to architecture and select their providers by the lowest price; in such cases, only minimum qualifications, experience, or financial viability may be judged (Strong 1996, 20; Sporrong 2011, 71). Otherwise, procurement officials may reuse criteria that were adopted in past procurement processes, usually without questioning these criteria's suitability to the specific service being procured (Moreira 2000, 8). Arguably, these two strategies will hardly result in the selection of the most skilled provider available (Anechiarico and Jacobs 1996, 132; Sclar 2000, 109; Fernandes 2016, 133).

As an alternative solution for this conundrum, scholars have suggested that procurement officials should evaluate critically what criteria have already worked in order to base

decisions regarding their own procedures (Arrowsmith, Linarelli, and Wallace Jr 2000, 679; Hudon 2011, 270; Dobbs et al. 2013, 8). This critical evaluation must consider the characteristics and the context of each service being procured (Holt 2010, 318–19).

It may be argued that investing in better procedures and criteria is too demanding for public organizations, which are usually confronted to limited budgets and are under pressure for showing results (Huitink 2017, 76–77). Still, the cost of the procurement process is low if compared to the cost of construction itself (Sporrong and Kadefors 2014, 626; TCU 2019b, 26). Not investing in selection of bidders is thus a waste of public money when construction is involved (Ochrana and Hrnčířová 2015, 57; Ruparathna and Hewage 2015, 9).

Given that the quality of architectural projects has significant consequences on construction works, some jurisdictions have implemented regulations establishing that public procurement for architectural services ought to account primarily for technical criteria. Some instances of such approach are Québec Government's *Règlement sur certains contrats de services des organismes publics* and the *U.S. Federal regulations on procurement of architect-engineer services* (Québec 2008, Art. 19; GSA 2018, Art. 36.602).

In Brazil, the regulatory framework's main objective is not assuring the quality of contracted services or acquired goods; instead, it focus on preventing corruption (Motta 2010, 161). As a result, Brazilian rules are unclear regarding the role of technical criteria in public procurement of services, including architectural services. Some regulations establish that technical criteria should be the main criteria in procurement of these services (Brasil 1993), whereas other regulations establish that price should be the main criterion (MP 2017b)[4].

Partly due to the contradiction mentioned above, the regulatory framework grants, to procurement officials, a great deal of discretion for procuring services, especially in what

[4] I will further discuss this topic in Section 6.2.7.

concerns the range of possible technical criteria for selecting bidders (Justen Filho 2009, 164). This discretion can be seen as a positive feature, given that different services may demand different skills. However, the World Bank noted that, in Brazil, decisions concerning the selection of bidders are "by far the greatest source of protests" (2004, 5). Indeed, companies often submit protests in public procurement procedures targeting technical criteria for selection of bidders (Fernandes 2005, 98). Moreover, the discretion afforded by the Brazilian regulatory framework regarding technical criteria could be used as a tool for illicit practices in procurement, such as favoritism (Castro and Lopes 2004, 223). These points hint that technical criteria are a salient problem in Brazilian procurement. Indeed, jurists and the Federal Audit Office acknowledge that technical criteria are one of the most troublesome issues in the Brazilian public procurement system (Justen Filho 2009, 413; TCU 2010b, 366).

In regard to procurement of architectural services, official statistics suggest that most of the time procurement officials select architects by the lowest price (Fiuza and Medeiros 2014, 49; MPOG 2017a). Such practice, as already mentioned, is bound to compromise the quality of the service procured (Fernandes 2016, 133; Guarnieri and Gomes 2019, 2). Furthermore, the Brazilian government has recognized the need of reducing risks associated with public procurement (MP 2017a, 30). In this regard, it seems useful to expand the knowledge on technical criteria for architectural services, not only because this matter can be the subject of administrative or judicial protests, but also because it has an effect on the quality of the final constructed product. Finally, the Brazilian law imposes a self-binding principle on administrative procedures (Faganello 2011, 168). This means that similar criteria are expected to be used in procurement procedures for similar services. Knowledge of past criteria is thus fundamental in the choice of future criteria.

There is little literature regarding empirical studies on sector-specific procurement, such as procurement of architectural services, and on issues related to selection of bidders, such as technical criteria (Patrucco, Luzzini, and Ronchi 2017, 246–47; Trammell, Abutabenjeh, and Dimand 2020, 665). Scholars and the Federal Audit Office have noted the lack of empirical studies about technical criteria in Brazil, underlining the need of such studies for

improving the selection of bidders (Lotta, Pires, and Oliveira 2014, 465; Fernandes 2016, 428; TCU 2019b, 49). Therefore, my purpose in this study is to analyze technical criteria used by procurement officials in Brazil to select providers of architectural services.

In the following sections I will introduce the main concepts of this study, namely technical criteria and architectural services, followed by a discussion on the concept of judgement.

2.2 Technical criteria

To start the discussion on technical criteria, I must approach the general concept of criterion in public procurement. A criterion can be defined as a standard by which something can be judged, decided or compared (Baggini and Fosl 2003, 84; Garner 2014b). Procurement officials use criteria for judging submissions, comparing them and, accordingly, deciding who is the winning bidder in a procurement procedure (Carvalho Filho 2009, 277; Bergman and Lundberg 2011, 5).

There are many types of criteria that can be employed in the selection of bidders in public procurement. Some examples are price, legal, financial, technical, ethical, fiscal and criminal criteria (Manoliadis and Tsolas 2009, 251; UNCITRAL 2014, Art. 9; Semple 2015, 98). Technical criteria are thus one type amongst many types of criteria in procurement.

Scholarly literature defines technical criteria as the set of requirements related to: (a) the qualities of the item being offered by bidders[5] (Arrowsmith, Linarelli, and Wallace Jr 2000, 599, 611; Semple 2015, 98) – for instance, the adequacy of a proposed architectural design to the client's needs; or (b) the technical capacities of the bidder (Arrowsmith, Linarelli, and Wallace Jr 2000, 688; Motta 2000, 121; Arrowsmith 2003, 251) – for instance, personnel experience or past performance.

[5] The item or set of items being procured can refer to construction, goods or services (UNCITRAL 2014, Art. 10).

In Brazil, the framework law on public procurement determines that technical criteria are mandatory in all procurement procedures (Brasil 1993, Art. 27). Thus, even in price-based procedures (which will be discussed in Section 3.10.1), at least one technical criterion must be assessed during the selection of bidders, otherwise the procedure would be illegal. These criteria must be relevant to the item being procured and they must also be as little restrictive as possible in order to foster economic competition[6] (TCU 2010b, 366). In Section 6.2.2.6 I will present a thorough review of the Brazilian regulatory framework on technical criteria.

2.3 Architectural services

Since I am dealing with procurement of architectural services, it is important to make clear what these services are. Below I provide an overview of what is considered architectural service in the context of this study.

The practice of architecture involves different tasks, from client relations to supervision of construction (Lewis 1985, 185; Chappel and Dunn 2016, 141). The task that is unique to architecture, distinguishing architects from other construction professionals, is spatial design, which can be understood as the organizing of physical spaces for social use (Lemos 1986, 40; Santos 1988, 17; Holanda 2013, 46; Kohlsdorf and Kohlsdorf 2017, 28).
The final product of spatial design is the project (IAB 2013b, 3; Rapoport in Kohlsdorf and Kohlsdorf 2017, 35).

It is necessary to clarify the concept of project since it will be often mentioned in this research. In architecture (as well as in engineering, for that matter), the term project has a more specific meaning than the way it is used in public administration. In the latter, it is employed to convey any set of organized activities intended to produce specific objectives (Banki 1986c; Law 2016). In the former, project is a set of drawings and models indicating

[6] According to the Cambridge dictionary, "competition" may refer to "a situation in which someone is trying to win something or be more successful than someone else" or to "an organized event in which people try to win a prize by being the best, fastest, etc." (Cambridge Dictionary 2018). In this thesis, I employ both meanings. To differentiate them, I will refer to the former as "economic competition" and to the latter as "prize competition".

measurements of the object that will be constructed by the builder, as well as instructions on how to construct it; it is the result of a design activity (Zevi 1957, 23; Hillier, Musgrove, and O'Sullivan 1972, 6; Kohlsdorf and Kohlsdorf 2017, 35). When I use the term *project* in this research, I refer to the way it is employed in architecture.

Architectural services in this study are those related to the practice of spatial design, the product of this practice being the architectural project. In English-speaking countries, architecture is mainly associated with the design of buildings (Murray 1994). In Brazil, however, Law 12.378 establishes that the profession of architect also encompasses the profession of urban planner[7]. Thus, a professional working in these fields is officially named "architect and urban planner" (*arquiteto e urbanista*) and their profession, "architecture and urban planning" (*arquitetura e urbanismo*) (Brasil 2010). For conciseness, I will refer to the professionals simply as architects, and to the profession as architecture. That is the way these terms are employed in everyday language in Brazil. In Section 6.2.9 I will examine Brazilian regulations concerning architectural services.

2.4 On judgement

One important concept that is connected to technical criteria and to architectural services is judgement. As mentioned in Section 2.2, the concept of judgement is intrinsic to the concept of criterion. In public procurement, procurement officials must use their judgement at least when performing two tasks. First, for choosing a bidder, they must devise relevant criteria, considering different and sometimes contradictory objectives, which I will review in Section 3.4. Second, they must evaluate and decide whether a bidder complies with the adopted criteria.

Procurement officials should aim for objective judgement in public procurement (Arrowsmith, Linarelli, and Wallace Jr 2000, 440; Sampaio et al. 2011, 584); however, objective judgement in procurement for architectural services may be elusive due to

[7] In this sense, Brazil is different from some jurisdictions, such as the USA and Canada, where architects and urban planners are distinct professionals, working under the supervision of distinct professional orders.

the nature of these services (Lemos 1986, 7), as I will discuss further in Section 4.1. Hence a survey on this matter is necessary.

2.4.1 Definition of judgement

The term judgement does not hold a universal meaning. In philosophy, judgement traditionally refers to the application of a general concept to a particular instance (Aquinas 1960, 18; Kant [1793] 1949, 412; [1790] 2007, 270; Bennett 1966, 144). The act of judging would then imply two levels: first, the perception level, in which the person judging identifies the object under scrutiny; second, the logical level, in which the person judging applies a concept to that object (Husserl [1948] 1973, 20–21). The truth or falsity of a judgement would depend on its conformity to external reality (Aquinas 1960, 18). However, philosopher Hannah Arendt pondered that determining the conformity to external reality may not be straightforward, thus the validity of a judgement would be derived from its potential agreement by other people – in other words, a correct judgement would be based on common sense (Arendt [1961] 2006, 217). Philosopher Julian Baggini proposed a yet more restrictive meaning. He argues that judgement is the act of reaching conclusions or forming theories beyond the limits of rational arguments (2016, 61). Hence, in Baggini's view, a judgement is only necessary when conformity to external reality is difficult to assess. In this sense, the truth or falsity of a judgement "cannot be determined by an appeal to facts and/or logic alone" (Baggini 2016, 57). A good judgement would be based on practical wisdom (Baggini 2016, 47). In this thesis, I will adopt the traditional definition mentioned above, for it encompasses all types of judgement. Still, the different perspectives on the matter already suggest that there are different types of judgement, as I will review in the next section.

2.4.2 Types of judgement

As suggested above, it is not possible to base all judgements only on logic and rationality (Mills 1967, 167; Simon [1947] 1997, 95; Thaler 2015, 252). Accordingly, it is argued that there is a continuum ranging from completely objective to completely subjective judgements (Simon [1947] 1997, 119; Baggini 2016, 113; Pigliucci 2017b). The objectivity

or subjectivity of a judgement would stem from the thing or phenomenon under scrutiny (Nagel 1986, 5). For instance, judging the taste of different types of coffee is different from judging whether a rod is long enough for accomplishing a particular task with it; the certainty produced by these two judgements are not of the same nature (Wittgenstein [1953] 2009, 235).

For the sake of simplicity, I will adopt in this thesis the classification proposed by Kant. For him, judgements can be objective, subjective or reflective ([1783] 1949, 71; [1790] 2007, 388). An objective judgement is not based on someone's perception; it depends only on a particular feature of the thing being judged (Kant [1783] 1949, 71). In other words, the tool for assessing the thing being judged is independent from the judge (Wittgenstein [1953] 2009, 236). For instance, any person can reasonably measure the length of a rod by means of a ruler.

A subjective judgement, on the other hand, is based on someone's perception (Kant [1783] 1949, 71; [1790] 2007, 204). In this case, the measuring tool and the judge are the same entity (Wittgenstein [1953] 2009, 236). Someone's perception of pleasure, for instance, can only be assessed by the person feeling the pleasure. It would be difficult to argue about the certainty or legitimacy of such judgements, for there are no universally agreed standards for them (Wittgenstein in Monk 1990, 405; Baggini 2016, 51). Some concepts in public administration theories, such as perception of red tape or mission valence, can be a matter of subjective judgements (Loon et al. 2016, 664; Wright and Pandey 2011, 36).

Finally, reflective judgements would be those in between objective and subjective judgements. They regard things and phenomena for which there is no universal law applicable to them, but they are not entirely dependent on someone's perception (Kant [1790] 2007, 388–89). The judge is expected to create a mental image of what the concept being judged ought to be, but such image is not universally accepted (Kant [1790] 2007, 278; Wittgenstein [1953] 2009, 239). Thus, in such cases, the judge must use his thinking faculties, based on his interpretation of the thing or phenomenon being judged, to apply a concept to it (Kant [1790] 2007, 234; Coleman 2018, 158). The legitimacy of reflective

judgements depend on how versed the judge is on the matter under scrutiny (Wittgenstein [1953] 2009, 239). Moral questions are typically the matter of reflective judgements (Kant [1788] 1949, 252). For instance, it is not possible to judge the fairness of so-called racial quotas in Brazilian universities based on facts and logic alone, but it is not a matter of individual perception either (Velasco 2009, 136; Baggini 2014, 126).

For clarifying the classification above, it might be helpful to provide some examples in the context of public procurement. In procurement for professional services, it is often required that bidders prove they are members of their professional order. Evaluating this criterion requires an objective judgement, no interpretation is needed for such assessment. On the other hand, evaluating the aesthetic qualities of a proposed design implies a subjective judgement, for each person may perceive these qualities differently. Finally, devising a criterion that is relevant to the item being procured requires a reflective judgement, for there is the need for an interpretation of what would be a relevant criterion.

2.5 Synthesis of the research problem

In this chapter, I argued that technical criteria for procurement of architectural services are an important issue, given the amount of public money spent in construction works. Scholars and the Federal Audit Office have noted the need of empirical studies concerning criteria for the choice of bidders used in procurement procedures in Brazil. The purpose of this study is thus to analyze technical criteria used by procurement officials in Brazil to select providers of architectural services.

As reviewed above, I will use the term technical criteria as the set of requirements in a procurement procedure that is related to the characteristics of the service being offered or to the capacities of the bidders. Architectural services in this inquiry are those services related to spatial design, which in Brazil must be performed by architects. Technical criteria must be relevant to the service procured. Therefore, procurement officials must judge what would be a relevant criterion given the service procured. However, this judgement may not be an objective judgement; it often requires procurement officials' interpretation of

relevance and of different procurement objectives. This interpretation affords a great deal of discretion to procurement officials. Given the issue of discretion, the theory of street-level bureaucracy seems to provide a useful framework for this research. But at this point, we have no systematic knowledge on which architectural services are procured, how they are procured, or what technical criteria are employed. I intend to fulfill this gap with this study.

In the following chapters, I will provide a panorama of concepts related to public procurement, and I will take on the matter of what technical criteria are in the context of architectural services. I will then present the street-level bureaucracy theory, which emphasizes the discrepancy between intended policy and practices. According to this theory, such discrepancy is afforded by officials' discretion. Research questions drawn from this theory focus on this discrepancy. Hence, I will review intended policy on procurement of architectural services, followed by a review of practices in procurement of architectural services. To obtain information on practices, I performed documentary research followed by content analysis. Results confirmed the expected discrepancy and corroborated the usefulness of the theory in public procurement research.

3 Literature review on public procurement

Public procurement is a complex subject by its own nature (OECD 2006, 4; Prier and McCue 2009, 352). Philosopher Bertrand Russell contended that a good way to deal with a complex subject is by identifying its components and analyzing them separately (in Eames 1969, 58). Thus, in this chapter I propose to introduce separately the concepts related to public procurement which are relevant to this research. I will proceed from the general definition of public procurement to the specific concept of types of criteria in procurement, including the necessary concepts in between. The concepts presented therein are drawn from my review of the literature on public procurement. They will be used elsewhere in this research, especially in the analysis of the Brazilian procurement system.

3.1 Definition of public procurement

An important question arises in public administration prior to the matter of public procurement, which is either a public organization should obtain items by contracting out or by means of in-house production (McAfee and McMillan 1988, 146; Sclar 2000, 128; Deis et al. 2009, 152). Public procurement starts when the choice of contracting out is made (McCrudden 2007, 3; Alencastro, Fuertes, and Wilde 2017, 11). It can thus be seen as an interface between the public domain and the private domain, by means of which the state is capable of obtaining items that are necessary for delivering policy goals (Castro and Lopes 2004, 33; Hudon 2013, 59). In Figure 2 I illustrate these choices and the relation between public and private domains. Yet, it would be too restrictive to imply that the public domain only contracts out with the private sector. Non-profit organizations and other public entities may also be providers of goods and services for the state (Sclar 2000).

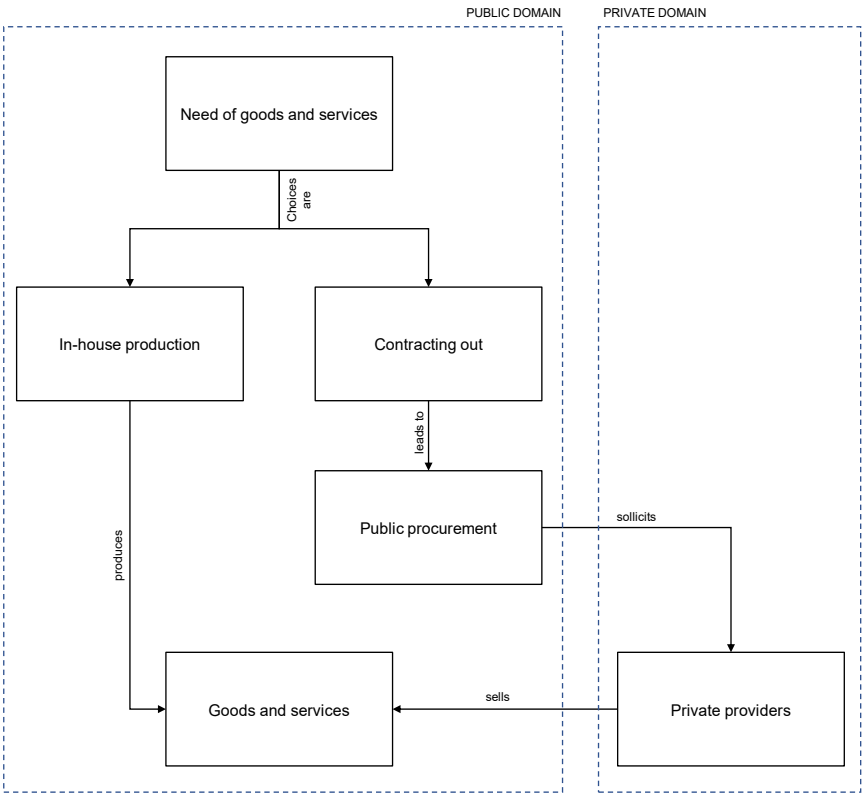


Figure 2 - Choices for obtaining goods and services

Scholars generally define public procurement as the set of activities by which public organizations buy items needed for their functions (Gershon 1999, 3; Arrowsmith, Linarelli, and Wallace Jr 2000, 12; Thai 2001, 16; Arrowsmith 2003, 2; McCrudden 2007, 3; Prier and McCue 2009, 330; Arsenault 2012; Ibem and Laryea 2014, 13; Chong, Staropoli, and Yvrande-Billon 2014, 2). The items to be procured are referred to as the *subject matter of procurement* (UNCITRAL 2014, Art. 10). There are three categories of subject matter of procurement that can be procured: construction, goods and services (Beviglia-Zampetti 1997, 278; Arrowsmith 2003, 2; UNCITRAL 2014, 5; Massamba-Débat 2017, 20–21). Each category comprises items with very different levels of complexity. For instance, the category *goods* straddles from sophisticated items, such as defense airplanes, to common objects, such as toilet paper. The process for procuring a simple item should usually be different from the process for procuring a complex one. Nevertheless, judging the limits between simple and complex is not straightforward, and

such judgements are often the result of procurement officials' interpretation on the matter (Schapper and Malta 2011, 1–2).

The term *procurement* may encompass the general concept of activities to acquire items, or it may designate one specific procedure for acquiring items (Banki 1986b). To avoid confusion, when I refer to the latter in this thesis, I will call it a *procurement procedure*, or simply *procedure*.

Public procurement is led by *procurement officials*, who are the civil servants in charge of buying items and of making sure their organizations comply with procurement regulations (Thai 2001, 29; World Bank 2016, 13). Although their responsibilities may vary from one jurisdiction to another, their goal is "is to ensure that organizations' needs are met in terms of production and supply chain management so that operations can run smoothly and continuously without failure or interruption" (Steinfeld 2017, 312). Procurement officials may be in technical positions as well as in management positions (Thai 2001, 30–31). They work for governmental organizations, which are designated *procuring entities* (UNCITRAL 2014, Art. 2).

In the field of public administration, some authors see public procurement only as an implementation tool, comprising standard procedures designed by the government to achieve its goals (Wilson 2000, 133; Howlett 2011, 25). Other authors, however, argue that, because public procurement offers plenty of room for procurement officials' discretion, each procurement procedure could be seen as a second design phase of procurement policies (Brown, Potoski, and Van Slyke 2006, 325; Vohnsen 2017, 137). The concept of discretion is very important here, for it is embedded in public procurement (UNCITRAL 2011). Procurement officials' discretion would depend primarily on the regulatory framework in place (Arrowsmith, Linarelli, and Wallace Jr 2000, 75). I will elaborate on these concepts in sections 3.3 and 5.2.

3.2 Theoretical lens in public procurement

Given the complexity of public procurement, a theoretical lens on the matter may help understand it. Research in public procurement often bypass theoretical models; when a theory is used, scholars most often employ economic theories (Flynn and Davis 2014, 150; Koala and Steinfeld 2018, 282; Trammell, Abutabenjeh, and Dimand 2020, 661). It is argued, nonetheless, that an appropriate theoretical model to explain any organizational activity (Simon [1947] 1997, 149) and, more specifically, public procurement, would be the systems model (Thai 2001, 17; Snider and Rendon 2008, 321). This model explains any process by a sequence of elements, comprising inputs, conversion, outputs and outcomes. Applied to public procurement, the systems model offers an overarching framework encompassing the most important elements of the procurement process: inputs would be public money and public officials' efforts; conversion would be the procurement procedure itself, which can be subdivided in many steps (more on this subject in Section 3.7); outputs would be the goods or services available to the procuring entity by the end of a procurement procedure; while outcomes would be the achievement of the procuring entity's goals, thus improving its legitimacy – for instance, distributing medicine to the less fortunate and consequently reducing mortality rates.

The systems model is easy to understand, but it downplays the role of policies and regulations in public procurement. As shapers of the procurement process (Arrowsmith, Linarelli, and Wallace Jr 2000, 13), policies and regulations have a strong influence on the outcomes. For this reason, Thai (2001, 18) and Snider and Rendon (2008, 320) propose theoretical models, drawn on the systems model, which incorporate policies and regulations. Such models suggest two types of inputs in procurement procedures. The first would be policies and regulations on procurement which are imposed by policymakers, while the second would be the allocation of money and of workers' efforts to carry out procurement procedures. I provide a synthesis of these models on Figure 3.

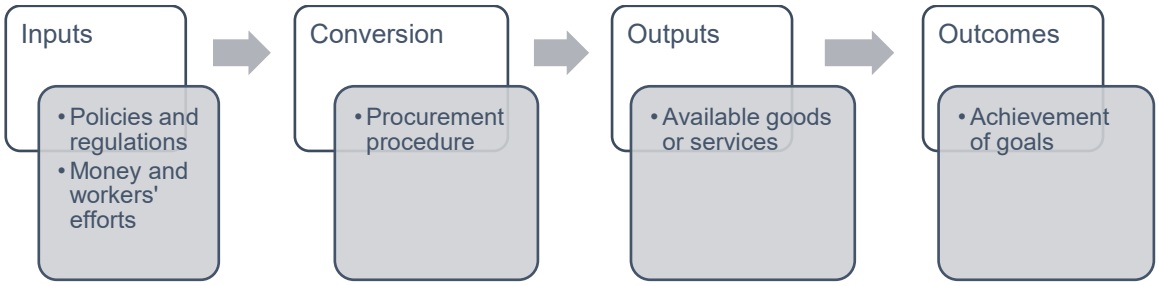


Figure 3 - Systems model applied on public procurement (based on Thai 2001 and Snider and Rendon 2008)

The synthesis above, however, still does not account for all complexities in public procurement. Workforce skills and enforcement, for instance, are factors that may steer procurement procedures' outcomes. Some scholars propose to include all elements that influence procurement procedures as parts of a *procurement system* (not to be confused with the systems model). I take on this subject in the next section.

3.3 Procurement system

A procurement system can be defined as the set of instruments which establishes and influences how procurement procedures are carried out in a jurisdiction (Prier and McCue 2009, 332; Armeanu 2011, 181). Scholarly literature usually includes laws, the workforce, organization and activities as instruments of a procurement system (Thai 2009, 20; Prier and McCue 2009, 333). Arrowsmith, Linarelli and Wallace Jr propose to analyze procurement systems by organizing them into two concepts: *procurement environment* and *regulatory framework* (2000, 18). I will employ this division in this research, for it gives proper attention to the regulatory framework, which is regarded as the most important element of procurement systems.

3.3.1 Procurement environment

An adequate procurement environment is supposed to bear three features: enforcement of the regulatory framework, functional organization of procurement, and capable personnel with good working conditions (Arrowsmith, Linarelli, and Wallace Jr 2000, 18–19; Thai 2009, 9–10). I review these features below.

3.3.1.1 Enforcement

In what concerns enforcement of the regulatory framework, two enabling factors stand out in the literature: the presence of an independent oversight entity for procurement (Estache and Foucart 2016, 22) and the provision of transparent procedures (Arrowsmith, Linarelli, and Wallace Jr 2000, 75; Haber 2017, 146; Tran, Molenaar, and Kolli 2017, 785). Manifestly, these factors depend on political will to implement them, which means procuring entities and procurement officials usually have limited influence over them (Arrowsmith, Linarelli, and Wallace Jr 2000, 18; Estache and Foucart 2016, 22).

3.3.1.2 Organization

With respect to the organization of the public procurement system, it concerns how procurement is structured in terms of administrative units and how activities are performed (Arrowsmith, Linarelli, and Wallace Jr 2000, 19). Two characteristics of the organization of procurement appear as desirable. First, centralization of procurement is regarded as a way to improve efficiency, since it would reduce duplication and fragmentation of activities (Glas, Schaupp, and Essig 2017, 583). It is suggested that centralization should be implemented by means of a central office for all public purchasing (OECD 2015, 10; Haber 2017, 149). Second, keeping procurement proceedings as simple as possible is seen as a way to encourage the participation of new bidders and thus strengthen economic competition (Gershon 1999, 4; Dini, Pacini, and Valletti 2006, 302; Nakabayashi 2009, 96; Lahdenperä 2013, 415; OECD 2015, 8; World Bank 2016, 19; Saad 2016, 439). Simplicity could be achieved by means of standard practices and performance measures (Gershon 1999, 4; Schapper, Malta, and Gilbert 2006, 12; Watermeyer 2009, 1), as well as objective criteria for selecting bidders (Arrowsmith, Linarelli, and Wallace Jr 2000, 440; Lynch 2011). However, centralization and simplicity conflict with policy studies underlining the need for context-sensitive policies (Fischer 1990, 217; Wilson 2000, 342; Coletti 2013, 89). Since each procurement procedure may be regarded as a second design phase of procurement policies (Alexander and Richmond 2007, 54; Kosar 2011, 300; Vohnsen 2017,

137), procurement officials can be caught between these contradictory needs (Wilson 2000, 315; Murray 2009, 94).

3.3.1.3 Personnel

In regard to personnel, scholars mention that independent, skilled procurement officials holding a high level of integrity as well as specialized knowledge and experience are a necessary condition for a well-functioning procurement system (Arrowsmith, Linarelli, and Wallace Jr 2000, 20; Cox and Ireland 2002, 414; Sporrong and Bröchner 2009, 26; Tran, Molenaar, and Kolli 2017, 783). In this line, there is a tendency to consider that procurement officials ought to be highly trained professionals (Erridge 2000, 22). In many jurisdictions, however, the work of procurement officials is still regarded as a clerical task, consequently little attention is given to improving their skills (Callender and Matthews 2000, 281; Thai 2001, 40–41).

Reflecting this lack of adequate training, there is often a mismatch between procurement officials' skills and their responsibilities (Feldman 1989, 70). Furthermore, procurement officials are often overworked (OECD 2000, 13) and they have difficulty in dealing with the extent and complexity of most procurement regulations (Borg et al. 2006, 240; Prier and McCue 2009, 352), as well as with the contradictions between primary and secondary procurement objectives (Beviglia-Zampetti 1997, 274; Flynn and Davis 2015, 116), which I will discuss in Section 3.4. It is revealing of these difficulties that procurement officials consider as their most important tasks those related to compliance with rules and assuring coherence within their procedures (McCue, Prier, and Steinfeld 2020, 10).

As discussed above, implementing an adequate procurement environment can be very challenging. In reality, procurement officials, usually overworked and lacking skills, have to balance between respecting their budgets, reaching primary and secondary objectives, and complying with complex laws (Thai 2009, 2; Bergman and Lundberg 2011, 5; Schapper and Malta 2011, 10; Hudon 2013, 62; McCue, Prier, and Steinfeld 2020, 13).

3.3.2 Regulatory framework

Regulatory framework can be defined as the set of legal rules in a jurisdiction applicable to a certain subject (NRGI 2015, 2). Public procurement regulatory framework is considered the determining shaper of the procurement system in each jurisdiction (Arrowsmith, Linarelli, and Wallace Jr 2000, 13; Thai 2001, 17; Prier and McCue 2009, 333). Since public procurement is framed by administrative law, procurement officials' actions must be bounded by the procurement regulatory framework (Forges 1991, 77; Castro and Lopes 2004, 32; Mello 2010, 76; McCue, Prier, and Steinfeld 2020, 4). For this reason, I will discuss this topic in further detail.

Regulatory frameworks vary on their level of prescription for procurement procedures. They may be situated in a continuum going from a maximalist approach, reflecting a highly regulated and detailed framework, to a minimalist approach, reflecting a deregulated framework that leaves a lot of discretion in the hands of procurement officials (Schapper, Malta, and Gilbert 2006, 21; Rosilho 2011, 21). The ideal framework should strike a balance between two issues that are inherent in public procurement: preventing corruption and reducing red tape (Sclar 2000, 155,157; Wilson 2000, ix; Thai 2001, 26; Armeanu 2011, 181; Saad 2016, 428). I discuss these two concepts below, drawing from scholarly literature on these matters.

3.3.2.1 Corruption and red tape

Although not consensual, a standard scholarly definition of corruption is the misuse of public funds for private gains (Garzon 2006, 400; Atkinson 2011, 447). Since procurement is one of the principal ways by which governments spend public funds, it is fertile ground for corruption, and corrupt activities may take place in any phase of a procurement procedure (Low, Mattoo, and Subramanian 1997, 226; Rose-Ackerman 1997, 31; Thomas et al. 2000, 229; Dorée 2004, 147; Transparency International 2006, 7; OECD 2009, 9; Hudon 2011, 269; Sanchez-Graells 2014, 5,11; Boisvert and Lacroix 2015, 12; Reeves-Latour 2017, 257). Due to the vulnerability of procurement to corruption, a strict regulatory framework, determining how each activity should be done and establishing heavy oversight

procedures, may be preferred (Burguet and Che 2004, 61; Berkovich 2015, 16; Reeves-Latour 2017, 267). However, too much legal prescription leads to red tape (Anechiarico and Jacobs 1996, xv; Schapper, Malta, and Gilbert 2006, 6; Prier and McCue 2009, 352).

Red tape is usually defined in the academic literature as rules that impose a burden but that are ineffective (Kaufman 1977, 5; Bozeman 2000, 2; Pandey and Scott 2002, 567; Bozeman and Feeney 2015, 46). Like corruption, it is also seen as an intrinsic characteristic of public procurement (Kelman 2005, 10). Red tape in procurement may be created not only for fighting corruption, but also for reaching secondary procurement goals of the public administration (Wilson 2000, 315, 326; Walker and Brewer 2009, 425; Schapper and Malta 2011, 1). Red tape increases transaction costs for bidders, which in turn reduces economic competition (Nakabayashi 2009, 97; Mamavi 2015, 53; World Bank 2016, 33).

3.3.2.2 Finding a balance

The quest for a balance between too much and too little regulation has been going on for centuries (Mill [1859] 1978, 5). From the preceding discussion, one may understand that the focus of maximalist approaches in public procurement is preventing corruption, whereas in minimalist approaches, it is reducing red tape. Critics of the maximalist approach note that it reduces the flexibility of the process, so goods and services that are not standard, such as architectural services, must be procured by the same methods used for standard ones, such as office supplies (Anechiarico and Jacobs 1996, 132; Schapper, Malta, and Gilbert 2006, 10; Rosilho 2011, 203). The maximalist approach is also accused of reducing the efficiency of the procurement process (Rose-Ackerman 1997, 46; Fenech and Petit 1998, 31; Gershon 1999, 14; Wilson 2000, 323; Pandey and Moynihan 2006, 130; Schapper and Malta 2011, 3; Lahdenperä 2013, 415) and of limiting innovation (Obwegeser and Müller 2015, 2). Moreover, the costly formalities imposed by maximalist approaches may not always be efficient in reducing corruption (Anechiarico and Jacobs 1996, 172; Hira 2016, 13).

Given the arguments above, some scholars suggest that the future of procurement is in the hands of minimalist approaches (Lawther and Martin 2005, 212; Kelman 2005, 16;

Schapper and Malta 2011, 3). However, without oversight, minimalist approaches may worsen the problems related to corruption (Hudon 2011, 270; Schapper and Malta 2011, 14; Stazyk, Pandey, and Wright 2011, 608), which would point back to a focus on its prevention. I illustrate this paradox on Figure 4.

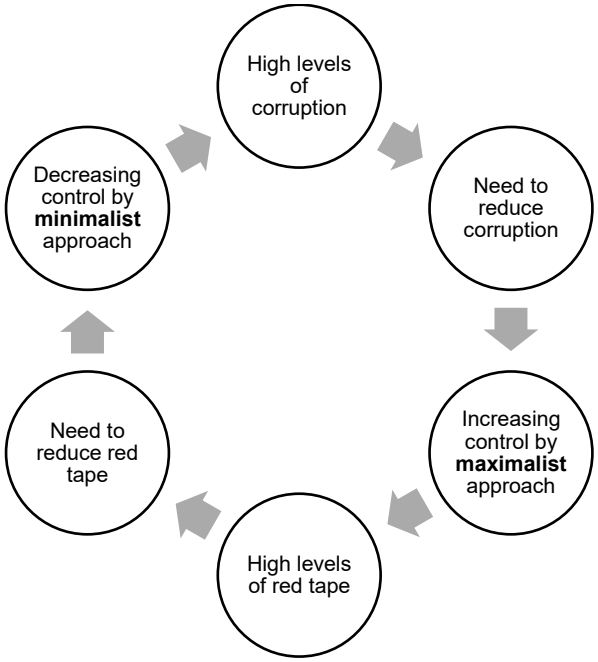


Figure 4 - Paradox of regulatory framework approaches

To circumvent this issue, Hira (2016, 3) proposes a minimalist approach based on reinforced accountability, meaning that managers will be given ample discretionary powers, but their decisions will be audited. Nevertheless, audits also reduce public sector performance (Anechiarico and Jacobs 1996, 149; Estache and Foucart 2016, 23), so the solution for an ideal regulatory framework may lie outside the level of prescriptions.

It is generally accepted that too much control leads to a focus on activities that are not the primary activities of public organizations (Anechiarico and Jacobs 1996, 149; O'Neill 2013). Decreasing control implies enlarging the discretionary powers of public officials. However, scholars warn that an increase in discretionary powers ought to be provided only to public officials whose level of professionalism is high (Arrowsmith, Linarelli, and Wallace Jr 2000, 20; Fabre 2014, 172). Therefore, the balance between maximalist and

minimalist approaches for regulatory frameworks would depend primarily on procurement officials' level of professionalism.

Because organization members have different levels of professionalism in a jurisdiction (Coêlho and Fernandes 2017, 694), it is very difficult to devise a regulatory framework that would address the needs of every procuring entity. This difficulty has led to never-ending regulatory reforms that oscillate between the maximalist and the minimalist approaches (Wilson 2000, 342; Schapper, Malta, and Gilbert 2006, 13; Pegnato 2009, 68). The constant reforms of procurement regulatory framework come with additional problems related to the learning curve costs of new rules (Sclar 2000, 44–45). Some scholars suggest thus that policy-makers should invest in improving procurement officials' integrity and skills instead of endlessly reforming the regulatory framework in their jurisdiction (Arrowsmith, Linarelli, and Wallace Jr 2000, 22; Beth 2005, 106; Schiele and Mccue 2006, 317; Lipsky 2019b).

3.4 Objectives in public procurement

One important characteristic of public procurement, which distinguishes it from private procurement, is that one of the parties involved – the procuring entity – is expected to represent the public interest (Dewey [1927] 2016; McCrudden 2007, 3; Dotti, Lopes, and Villac 2014, 35). Policy-makers can thus use public procurement as a tool for the implementation of policies that have no direct relation to the subject matter of procurement – in other words, outcomes of procurement procedures may go beyond the procuring entity's organizational goals (Thai 2001, 27; McCrudden 2007, 375; Alencastro, Fuertes, and Wilde 2017, 11). Accordingly, policies on procurement may require that procurement officials reach two types of objectives: primary and secondary objectives (Arrowsmith 2003, 325; Richard 2003, 105; Fabre 2014, 172; Guarnieri and Gomes 2019, 2).

Primary objectives are those related to the price and to the quality of the subject matter of procurement (Arrowsmith 2003, 325; Armeanu 2011, 186). In this regard, it is consensual

amongst scholars that public procurement main primary objective should be the purchase of items that offer optimal value for procuring entities, and that a high level of economic competition is the best way to achieve such efficient allocation of resources (Mill [1859] 1978, 94; Beviglia-Zampetti 1997, 274; Sclar 2000, 9; Collins, Trebilcock, and Winter 2003, 18, 143; Abramo 2005, 127; Chong, Staropoli, and Yvrande-Billon 2014, 2; Boland 2017, 40).

Secondary objectives are those related to policy objectives aiming the common good, without necessarily having a relation with the subject matter of procurement (Beviglia-Zampetti 1997, 275; Arrowsmith 2003, 325; Guarnieri and Gomes 2019, 2). In this vein, public procurement has been increasingly employed as a means for reaching organizations' strategic goals (Staples and Dalrymple 2016, 222; Glas, Schaupp, and Essig 2017, 573; Guarnieri and Gomes 2019, 12). Some examples of secondary objectives are economic development, fostering innovation, improving sustainability or affirmative actions (Transparency International 2006, 17; Chong, Staropoli, and Yvrande-Billon 2014, 2; Dodd, Garbarino, and Caldas 2016, 1; Guarnieri and Gomes 2019, 20). Different organizations and jurisdictions have different priorities concerning their primary and secondary procurement objectives (Schapper, Malta, and Gilbert 2009, 100; Ruparathna and Hewage 2015, 4; Glas, Schaupp, and Essig 2017, 594–95; McCue, Prier, and Steinfeld 2020, 12). Therefore, procurement procedures for the same subject matter of procurement may vary from one procuring entity to another.

3.5 Transparency in public procurement

Transparency is an issue that permeates all spheres of the public administration (Bernier 2012). It refers to providing to the public "the objectives of policy, its legal, institutional, and economic framework, policy decisions and their rationale, data and information related to monetary and financial policies, and the terms of agencies' accountability" (OECD 2002).

Although transparency is not the main focus of this research, it is an intrinsic element in public procurement (Armeanu 2011, 186; Thai 2017, 15). It is usually seen as a positive trait, not only because it is related to reducing corruption (Garzon and Hafsi 2007, 71; Hira 2016, 3; Mourão and Cantu 2014, 76), but also for its beneficial effects on democracy and society (Arendt [1948] 2002, 529; Crick 2002, 92). In this regard, the Brazilian government stated that the main goal of its procurement regulations is transparency (Brasil 2018c).

Yet, to yield positive results, transparency must go beyond just providing data; it must provide information in a timely manner that is accessible by the public (O'Neill 2013). In other words, concerned parties should not only be able to get the information they want when they need it, they should also be able to understand this information (Bernier 2012).

Regulations for providing transparency in public procurement are usually associated with a maximalist regulatory framework (Arrowsmith, Linarelli, and Wallace Jr 2000, 75). They are thus related to a reduction in procurement officials' discretion, which may lead to less efficiency in procurement procedures (Epstein 2008, 20; Keeler 2013, 184).

3.6 Project delivery methods

One specific feature of procurement for construction and its corresponding architectural and engineering services is that there may be different possible *project delivery methods*, depending on the regulatory framework in place. A project delivery method can be defined as "the process by which a construction project is comprehensively designed and constructed" (Touran et al. 2011, 3). Project delivery methods should not be confused with solicitation methods, which will be explained on Section 3.8. Project delivery methods in public procurement concern the choice of outsourcing design and construction separately or together (Park and Kwak 2017, 281).

Two project delivery methods stand out in practice for public procurement: the design-bid-build approach (DBB) and the design-build approach (DB)[8] (Touran et al. 2011, 10; Park

[8] In the Brazilian regulatory framework, DB is referred to as integrated contracting (*contratação integrada*).

and Kwak 2017, 281). These two methods bespeak the relation between construction and design: construction presupposes a preliminary design of the infrastructure or building to be constructed (Regan, Love, and Smith 2015, 411; IAB 2013b, 1). In this context, design refers to the production of architectural and engineering drawings and specifications – in other words, it refers to the production of a project.

DBB is regarded as the traditional approach for procurement of construction (Hudon 2011, 271; Touran et al. 2011, 3). By means of DBB, procuring entities can decide whether to produce the project in house or to contract it out. When they decide to contract out the project, the procurement procedure is split in two, one for the project and one for the construction. In this case, a professional or a firm is selected for producing the project, while a contractor is selected in a later procurement procedure for the construction (Davis, Love, and Baccarini 2008, 8; Touran et al. 2011, 3; Ruparathna and Hewage 2015, 3; Alencastro, Fuertes, and Wilde 2017, 12). Using DBB, procuring entities are supposed to have a good notion of what the building or infrastructure will cost before engaging in the procurement of construction (Park and Kwak 2017, 280). The main drawbacks are that the delivery of the infrastructure or building may take too long, since DBB implies two procurement procedures, and that DBB does not encourage the combination of skills amongst the design and the construction teams (Ruparathna and Hewage 2015, 4).

In DB, design and construction are one integrated process, which should be based on the needs specified by the procuring entity. In this case, there is only one procurement procedure, in which procurement officials choose the firm responsible for both the design and the construction, usually referred to as the design-builder (Davis, Love, and Baccarini 2008, 10; Touran et al. 2011, 4; Alencastro, Fuertes, and Wilde 2017, 12). Since in DB there is only one procurement procedure, this approach is seen as a way to produce results more quickly (Touran et al. 2011, 18). Nevertheless, DB implies more risk for the procuring entity, given that the absence of a project when the process is started means ample opportunity for extra claims by the design-builder (Ruparathna and Hewage 2015, 4).

The choice between DBB and DB depends not only on the acceptable level of risk, but also on what is legally feasible given the regulatory framework in place (Touran et al. 2011, 23; Park and Kwak 2017, 281). Despite its potential benefits, DB was not allowed under Brazilian regulations until the adoption of Law 12.462, in 2011, and it remains restricted to certain needs of the government (Brasil 1993, Art. 9, 2011a; Albuquerque, Mendes Primo, and Pereira 2015, 835). This topic will be further reviewed on Section 6.2.4.

3.7 Phases of public procurement

The process of public procurement can be quite complex, especially in jurisdictions adopting a maximalist approach. For a better understanding of the process, scholars propose to divide it into phases (Ruparathna and Hewage 2015, 9; Alencastro, Fuertes, and Wilde 2017, 11). The phases of procurement are sets of activities that the procuring entity has to take sequentially to obtain the subject matter of procurement (Ruparathna and Hewage 2015, 3). These phases may be summarized in three main steps: pre-contractual phase, selection phase and administration phase (Arrowsmith, Linarelli, and Wallace Jr 2000, 1), as I illustrate in Figure 5.

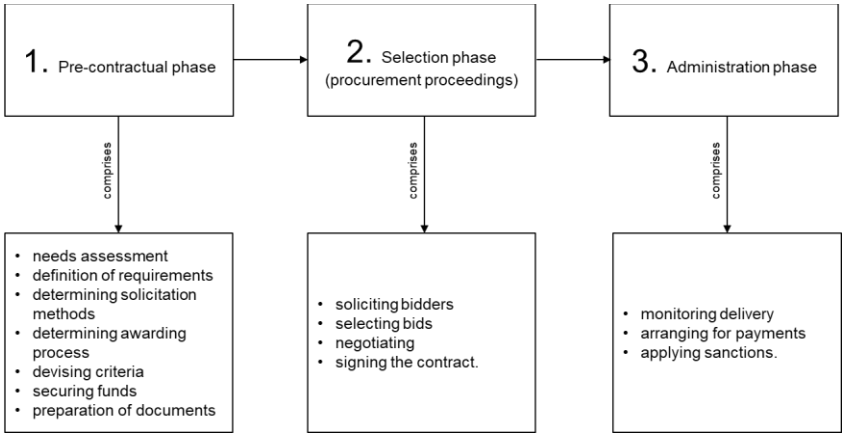


Figure 5 - Phases of procurement
(based on Arrowsmith, Linarelli, and Wallace Jr 2000)

The pre-contractual phase involves needs assessment, specification of the subject matter of procurement, determining solicitation methods, determining awarding process, devising selection criteria, securing of funds, and preparation of procurement documents.

The selection phase involves soliciting bidders, selecting submissions presented by bidders, as well as negotiating and signing the contract — this phase is referred to as *procurement proceedings*. The administration phase comprises monitoring the delivery of the subject matter of procurement, arranging for payment and applying sanctions if needed (Arrowsmith, Linarelli, and Wallace Jr 2000, 1; Fazekas, Toth, and King 2013, 10; Ibem and Laryea 2014, 16; UNCITRAL 2014, Art. 2; Ruparathna and Hewage 2015, 4; Alencastro, Fuertes, and Wilde 2017, 11). Procurement officials devise criteria during the pre-contractual phase, including them in the procurement documents, and they judge bidders' compliance with criteria during the selection phase.

3.8 Solicitation methods

Solicitation methods refer to the way the procuring entity solicits proposals from bidders (Arrowsmith, Linarelli, and Wallace Jr 2000, 459). Depending on the regulatory framework, there may be a large spectrum of methods available (Arrowsmith, Linarelli, and Wallace Jr 2000, 459; Thai 2009, 18). The most common methods are (1) open tendering, which is open to any person or firm interested in submitting a bid; (2) request for proposals, in which the procuring entity invites a restricted number of pre-qualified bidders to submit a proposal; (3) request for quotations, in which firms are invited to submit a price for a specified off-the-shelf good; (4) single source procurement, in which there is only one person or firm available for providing the good or service procured; (5) electronic reverse auctions, in which firms successively submit bids using an online tool during a period of time; and (6) prize competitions, which are used in some jurisdictions for the purchasing of services that demand creative input (Arrowsmith, Linarelli, and Wallace Jr 2000, 459–60; Arrowsmith 2003, 295; UNCITRAL 2014, Art. 27).

The best method would depend on the nature of the subject matter of procurement, within the limits provided by the regulatory framework (Thai 2009, 31). For instance, the Brazilian law allows open tendering for the procurement of any subject matter (Brasil 1993, Art. 23 § 4). However, procurement officials may prefer to employ reverse auctions, which are simpler than open tendering, for buying off-the-shelf goods; or they may be better off using

single source procurement for the restoration of a work of art. Both methods are also provided by the Brazilian law in such cases, granting discretion to procurement officials on this matter. The choice of solicitation method is an important task in procurement, for it determines the pool of possible bidders and how the winner will be selected, including the technical criteria used for selecting them (Ruparathna and Hewage 2015, 6).

3.9 Typology of criteria in procurement

According to scholarly literature, criteria for selecting bidders and awarding a contract in public procurement may be classified in two dimensions: (1) according to their use, they can be qualification or evaluation criteria; and (2) according to their nature, they can be price and non-price criteria. I review these categories in this section.

3.9.1 Qualification and evaluation criteria

According to their use, criteria in public procurement may be classified in two categories: qualification criteria and evaluation criteria (Arrowsmith, Linarelli, and Wallace Jr 2000, 585, 600; Mello 2010, 583–84; UNCITRAL 2014, Art. 9, Art. 11).

Qualification criteria are those used to filter out bidders who would not be able to deliver the item being procured[9]. Thus, these criteria are applied on the past or present situation of bidders to determine their eligibility to a particular procurement procedure (Arrowsmith, Linarelli, and Wallace Jr 2000, 689; Manoliadis and Tsolas 2009, 251; UNCITRAL 2014, Art. 9). *Experience of the workforce* would be an example of qualification criterion applied to the past situation of a bidder, while *structure and available tools* is an example of qualification criteria applied to the present situation of a bidder (Motta 2000, 121; Semple 2015, 98). Qualification criteria are very important because they have a strong influence in the degree of economic competition in procurement (Beviglia-Zampetti 1997, 281; Stake 2017, 1160).

[9] In Québec, qualification criteria correspond to *conditions d'admissibilité*, according to the *Règlement sur certains contrats de services des organismes publics* (Québec 2008, Art. 6).

Many types of qualification criteria can be employed in public procurement, depending on the regulatory framework (Arrowsmith, Linarelli, and Wallace Jr 2000, 587; Fiuza and Medeiros 2014, 11). For instance, the European Union rules on public procurement establish that legal, financial and technical criteria should be used to qualify bidders (Semple 2015, 98). The United Nations, in their model law for public procurement, proposes the inclusion of ethical, fiscal and criminal criteria as qualification criteria, in addition to the aforementioned ones (UNCITRAL 2014, 9–10).

Evaluation criteria[10], on the other hand, are used to assess which submission offers the best value for money for the procuring entity (Arrowsmith, Linarelli, and Wallace Jr 2000, 598; Burger and Hawkesworth 2011, 92; UNCITRAL 2014, Art. 11). Evaluation criteria comprise mainly price and technical criteria, but in some cases they may also include factors such as bidders' financial capabilities or socioeconomic policy goals (Arrowsmith, Linarelli, and Wallace Jr 2000, 600, 674; UNCITRAL 2014, Art. 11).

Arrowsmith, Linarelli and Wallace Jr provide a clear explanation of the difference between qualification criteria and evaluation criteria: "Evaluation criteria are used in a relative sense, in order to compare or rank offers. Qualification factors are not applied in this fashion. A firm's qualifications are judged against some standard and not relative to the qualifications of other firms" (2000, 689). Evaluation criteria are thus applied on bidders' submissions for a procurement procedure, whereas qualification criteria are applied on bidders themselves. I provide a summary of the categories of criteria according to their use on Table 1.

[10] In Québec, technical evaluation criteria correspond to *critères d'évaluation de la qualité*, according to the *Règlement sur certains contrats de services des organismes publics* (Québec 2008, Art. 5, 6°).

Table 1 - Categories of criteria according to their use

Categories →	**Qualification**	**Evaluation**
Function	To filter out **bidders** who would not be able to deliver the item being procured	To assess which **submission** offers the best value for the procuring entity
Types	• Legal • Financial • **Technical** • Ethical • Fiscal • Criminal	• Price • **Technical**

The terminology reviewed above, however, is not consensual amongst scholars. For instance, Manoliadis and Tsolas name qualification criteria as "selection criteria", and evaluation criteria as "award criteria" (2009, 251); Holt employs the term "selection criteria" for both types of criteria (2010, 318); Volker and Meel apply the term "suitability criteria" to qualification criteria, and "award criteria" to evaluation criteria (2012, 26–27); Semple refers to qualification criteria as "eligibility criteria" (2015, 98). To minimize confusion in the application of these concepts, I will stick to the terminology suggested by the United Nations in their model law on public procurement (UNCITRAL 2014, Art. 9, Art. 11). Therefore, in this research, I will refer to criteria used to filter out bidders who would not be able to deliver the item being procured as *qualification criteria* and to criteria used to assess which submission offers the best value for money for the procuring entity as *evaluation criteria*.

3.9.2 Price and non-price criteria

According to their nature, criteria may be classified in two categories: price and non-price criteria. Price simply refers to the value proposed by bidders for an item being procured. All other criteria are non-price criteria. Examples of non-price criteria are legal, financial, technical, ethical, fiscal and criminal criteria (Manoliadis and Tsolas 2009, 251; UNCITRAL 2014, Art. 9; Semple 2015, 98).

Non-price criteria may include factors related to secondary procurement goals (Arrowsmith, Linarelli, and Wallace Jr 2000, 674). For instance, they may include margins of preference for the benefit of certain suppliers (UNCITRAL 2014, Art. 11). The inclusion

of such factors increases the level of complexity of a procurement procedure (Snider and Walkner 2009, 616).

Non-price criteria may involve objective judgement, such as fiscal compliance, but also reflective judgement, such as technical quality or experience of the bidder. The use of non-price criteria implying reflective judgement may increase the risk of administrative and legal protests (Snider and Walkner 2009, 616; Scott et al in Tran, Molenaar, and Kolli 2017, 776), which are costly and time-consuming (Pegnato 2009, 75). Furthermore, non-price criteria can be used to direct the contract to a favoured bidder in a corrupt process (Transparency International 2006, 42; Fazekas, Toth, and King 2013, 21; Stake 2017, 1147). Despite the need for reflective judgement and their complexity, the use of non-price criteria is related to good results in procurement (Deis et al. 2009, 173).

3.10 Typology of procurement procedures

The choice of criteria in a procedure is associated with what type of procedure is employed. Procurement procedures may be classified in two dimensions, which are closely related to technical criteria: (1) according to the awarding process employed, they can be price-based, value-based or quality-based; and (2) according to the point when qualification of bidders is assessed, they can be pre-qualification or post-qualification procedures. I review these categories in the paragraphs below.

3.10.1 Price-, value- and quality-based procedures

Procurement procedures may be classified according to the awarding process they employ. Awarding process[11] refers to the way price and non-price criteria are used for selecting submissions and awarding a contract to the winning bidder (Armeanu 2011, 183). There are three main types of awarding processes, as shown on Figure 6. The first is price-based

[11] I use the term *awarding* as a translation for *adjudicação*, in Portuguese, and its equivalent *adjudication*, in French. Although the words "adjudicate" and "adjudication" exist in English (Merriam Webster 1996; Garner 2014a), the term *awarding* is more common in the context of public procurement (Castro 2010).

selection, in which the contract is awarded to the bidder asking for the lowest price. The second is quality-based selection, in which the contract is awarded to the bidder offering the highest quality, measured by a set of non-price criteria. The third is value-based selection, in which the contract is awarded to the bidder offering an optimal combination of price and non-price criteria (Thai 2001, 17; Ruparathna and Hewage 2015, 6; Alencastro, Fuertes, and Wilde 2017, 12).

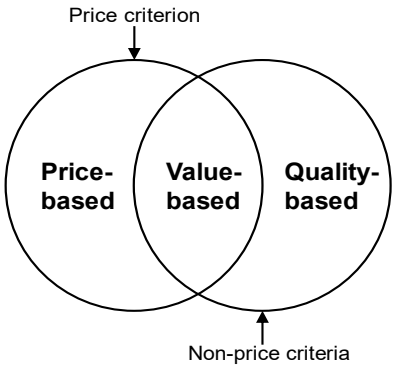


Figure 6 - Types of awarding process according to type of criteria

The types of awarding process and evaluation criteria are closely related. As seen in Section 3.9.1, price can only be used as an evaluation criterion. Therefore, price-based procedures imply that procurement officials do not judge evaluation criteria other than price. The winner of a price-based procedure will be the qualified bidder offering the lowest price. In such cases, procurement officials only need to devise qualification criteria. On the other hand, quality-based and value-based procedures imply that procurement officials need to devise qualification and evaluation criteria, for non-price evaluation criteria will be assessed.

Price-based selection is praised for its objectivity and for its simplicity, which are supposed to increase economic competition and consequently reduce corruption (Chong, Staropoli, and Yvrande-Billon 2014, 2; Boland 2017, 40; Stake 2017, 1160). On the other hand, this process is seen as the cause of low quality results, since it may attract unskilled providers (Sclar 2000, 109; Ruparathna and Hewage 2015, 6, 8; Ochrana and Hrnčířová 2015, 57; Tran, Molenaar, and Kolli 2017, 774). Price-based selection may also be used for collusion,

especially in contexts where economic competition is low (Rose-Ackerman 1997, 46; Transparency International 2006, 36).

Quality-based selection takes into account non-price evaluation criteria — typically technical criteria — which are supposed to assure the quality of the good or service being procured (Ochrana and Hrnčířová 2015, 45). However, this process may imply low levels of objectivity in the judgement of submissions (Deis et al. 2009, 158). Furthermore, since quality is often measured by experience (Arrowsmith, Linarelli, and Wallace Jr 2000, 591), bidders with little experience can be left out of the process, which decreases economic competition (Estache and Iimi 2012, 452–53; Stake 2017, 1159). The focus being non-price criteria, the cost of the good or service is not known beforehand (RAIC 2016), so the procuring entity may bear a high financial risk when using quality-based selection.

Value-based selection aims at choosing the most advantageous offer for the procuring entity, seen as a compromise between the cost and the quality of the subject matter of procurement. Thus, it includes both price and non-price criteria as evaluation criteria (Tran, Molenaar, and Kolli 2017, 775). In this process, procuring entities establish scores for non-price criteria and for price, and they can apply different weights to each criterion according to their preferences and to the regulatory framework (Bergman and Lundberg 2011, 32). The balance between price and non-price criteria depends then on many factors that may be difficult to assess, such as the needs of the procuring entity or even society's values (Manoliadis and Tsolas 2009, 250; Bergman and Lundberg 2011, 3–4). Therefore value-based selection usually introduces subjective or reflective judgements and the problems associated with them. Furthermore, the scoring system yields a high level of complexity in the procurement process, which might become a problem in itself (Holt 2010, 304; Fiuza and Medeiros 2014, 58).

The choice of awarding process should take into consideration the item being procured and the objectives of the procuring entity, given the regulatory framework in place (Fiuza and Medeiros 2014, 38). While price-based procedures are deemed adequate for procuring simple goods and services, they are not usually seen as the most appropriate for complex

services, such as architectural services, since their awarding process would ignore the quality of the subject matter of procurement (Schapper, Malta, and Gilbert 2006, 10; Chong, Staropoli, and Yvrande-Billon 2014, 4–5; Fiuza and Medeiros 2014, 38). In spite of that, there is evidence showing that price-based procedures are the most used for complex services in some jurisdictions (Volker and Meel 2012, 25; Chong, Staropoli, and Yvrande-Billon 2014, 13). This situation may be due to the difficulties associated with the judgement of non-price criteria (Deis et al. 2009, 158).

3.10.2 Pre-qualification and post-qualification procedures

Procurement procedures may be categorized into pre-qualification or post-qualification procedures, depending on the point when qualification criteria are assessed (Arrowsmith, Linarelli, and Wallace Jr 2000, 596).

Pre-qualification procedures imply that qualification is assessed before submissions are analyzed. Bidders who are not qualified will not be given the opportunity to participate in the process or will not have their proposals evaluated (Arrowsmith, Linarelli, and Wallace Jr 2000, 596). Pre-qualification may even take place before procurement proceedings start, depending on the solicitation method employed and on the regulatory framework (UNCITRAL 2014, Art. 18). In Brazil, request for proposals is an example of solicitation method which includes pre-qualification procedures (Brasil 1993, Art. 22).

Post-qualification procedures imply that qualification is assessed after submissions are analyzed. However, only the winning bidders have their qualification assessed. If it turns out that the provisional winner is not qualified, the second-best submission is assessed and so on (Arrowsmith, Linarelli, and Wallace Jr 2000, 596). Post-qualification procedures are in general less time-consuming for procurement officials than pre-qualification procedures (Rosilho 2011, 161). In Brazil, reverse auction is an example of a solicitation method in which post-qualification procedures are employed (Brasil 2002, Art. 4).

Pre-qualification procedures are usually very time consuming, especially when the number of bidders is high. For this reason, scholars suggest that their use should be limited to

complex procedures, which demand a closer scrutiny of bidders' experience. Nevertheless, post-qualification procedures also present inconveniences. Post-qualification introduces a bias towards the lowest bidder, because in this type of procedure procurement officials may rely on a completely objective criterion to justify their judgement. In such cases, the chances of selecting the bidder offering the optimal value for procuring entities may be reduced (Arrowsmith, Linarelli, and Wallace Jr 2000, 76, 596; Arrowsmith 2003, 232). Therefore, procurement officials are expected to evaluate which type of procedure would be most appropriate to the nature of the subject matter of procurement.

3.11 Considerations on public procurement concepts

In this chapter, I presented the main concepts that will be used in the remaining of this thesis, namely procurement system, which comprises the procurement environment and the regulatory framework; procurement delivery methods; solicitation methods; types of criteria; and types of procedures. It is important to underline that, in accordance with the regulatory framework in a jurisdiction, the type of items being procured (construction, goods or services) and their value will usually determine solicitation methods and types of procedures employed, which in turn are related to whether only qualification criteria or a combination of qualification criteria and evaluation criteria will be required. The focus of this research are technical criteria, but they are closely related to solicitation methods and to the items procured – in this case, architectural services. These three concepts are the core of the empirical inquiry developed in this thesis.

In the following chapter I will review the literature dealing specifically with procurement of architectural services.

4 Literature review on procurement of architectural services

In this chapter I will address the literature on procurement of architectural services. As mentioned before, technical criteria and solicitation methods in procurement depend on the nature of the subject matter of procurement (Arrowsmith, Linarelli, and Wallace Jr 2000, 19; Chappel and Dunn 2016, 395). Therefore, I shall deal here with the nature of architectural services, and I will review studies on technical criteria and on solicitation methods used for procuring them.

4.1 Nature of architectural services

As reviewed in Section 3.1, there are three main types of items that can be procured: construction, goods and services. Services can be further classified as common services, such as street cleaning, or as professional services, which are those of intellectual nature, requiring specialized knowledge or skills (Perreault 2020, 23–24). Architectural services are considered professional services, and procuring this type of service is a challenge for procurement officials (Castro and Lopes 2004, 224; Schiele and Mccue 2006, 319). Procurement of professional services should be different from the procurement of goods, construction or common services, due to their higher complexity; this is particularly true for architecture, which involves a strong creative component (Schapper, Malta, and Gilbert 2006, 10; Sporrong and Bröchner 2009, 25; Estache and Iimi 2012, 454; Sporrong 2014, 24). Questions that emerge then concern what architectural services are and what is particular to these services, differentiating them from other professional services. I will discuss these topics in the following sections.

4.1.1 Characteristics of architectural services

In Section 2.3 I have introduced the concept of architectural services, which include an array of different tasks related to design and construction (Lewis 1985, 185; Chappel and Dunn 2016, 141). The task that is unique to architecture, which distinguishes architects from other construction professionals, is spatial design, which can be understood as

the organizing of physical spaces for social use (Lemos 1986, 40; Santos 1988, 17; Graeff 2006, 40; Holanda 2013, 46; Kohlsdorf and Kohlsdorf 2017, 28). In this research, I focus on architectural services as spatial design.

Architects employ a creative and iterative process in the activity of spatial design (Niemeyer in Lemos 1986, 38; Waldrep 2014, 4–5; Kohlsdorf and Kohlsdorf 2017, 35). Each design possibility is assessed in comparison to other design options. Yet, it is not possible to determine for sure which design would be the final, best one for responding to the client's needs and to its context. Thus, architecture is said to belong to the domain of possibilities (Hillier, Musgrove, and O'Sullivan 1972, 6; Hillier 2008, 217; Kohlsdorf and Kohlsdorf 2017, 436, 452).

Another particularity of architecture is the collaborative character of its production. The client's capacity has a strong impact on results, because it is up to the clients to clarify their needs and to adapt their expectations to the constraints and to their own budgets (Lewis 1985, 208; Larson 1993, 5; Volker 2012, 756; Sporrong 2014, 59). In this regard, the success of a project relies both on the architect's skills and on the client's skills (Tschumi 2012, 748; Strîmbu 2013, 62; Dobbs et al. 2013, 6; Renzo Piano in Rybczynski 2014, 235) – the client being usually represented by procurement officials, in the case of public procurement.

4.1.2 Dimensions in architecture

When producing spatial design, architects must consider two dimensions of the object that will be eventually constructed: the technical dimension and the aesthetic dimension (Hegel [1835] 2010, 27; Gropius in Johnson 1994, 85; Zevi 1957, 28; Lasdun 1977, 367; Lemos 1986, 7; Behrens in Murray 1994; Ballantyne 2002a, 3; Rybczynski 2014, 5). These two dimensions correspond to the form–function duality, which is inherent to architecture, as argued by philosopher Henri Lefebvre ([1974] 1991, 144–45).

The technical dimension is related to the function of the object. It regards the best way to organize the space in its context. In the design process, architects must therefore consider

many factors, especially the program (the needs of the client), the site, the historical context of the site, the budget, structural feasibility and legal constraints (Lemos 1986, 41; Aalto in Weston 1995, 122; Holt 2010, 309, 316–17; Mascaro 2010, 14; Tschumi 2012, 747; Holanda 2013, 45).

In general, the aesthetic dimension is related to the subjective assessment of beauty or pleasure derived from something, which can be a physical object or a non-physical entity, such as music (Koren 2010, 55). In architecture, it concerns the way a constructed object is apprehended by one's cognitive faculties (Kant [1790] 2007, 204; Noack 2009, 105).

The difference between the technical and the aesthetic dimensions can be grasped by the distinction between "good" and "beautiful" proposed by Thomas Aquinas. Pursuant to his teachings, "good" is a desired characteristic of things; it is related to the finality of an object. "Beautiful", on the other hand, is related to the pleasure received when something is perceived (Aquinas 1960, 262). Accordingly, the technical dimension – function – is related to the notion of good, whereas the aesthetic dimension – form – is related to the notion of beautiful. Thus, it is contended that the technical dimension of a project can be evaluated by a reflective judgement regarding the project's adequacy to its finality (Mizanzuk 2013, 76; Portugal 2013, 82), whereas evaluating the aesthetic dimension would imply a highly subjective judgement (Larson 1993, 187; Nagel 1997, 26; Escoubas 2017, 69). The need to combine different types of judgement renders the practice of architecture inherently complex (Venturi 1977, 16).

It is also worth noting that architects claim their authority on aesthetic qualities of the built environment (Lemos 1986, 40; Larson 1993, 4; Freidson 2001, 172). But aesthetic qualities depend on an individual's perception of pleasure (Dewey [1934] 2005, 56; Nagel 1986, 164; Baggini 2005, 74; Lories 2009, 142). In turn, an individual's perception of pleasure would be influenced by the cultural context of this person (Bourdieu [1997] 2015, 107; Kohlsdorf and Kohlsdorf 2017, 63). In this regard, it has been documented that architects and non-architects often disagree on the aesthetic value of a building (Santos 1988, 17; Kohlsdorf and Kohlsdorf 2017, 420).

To recap the discussion thereupon, architectural services are professional services of a creative and collaborative nature producing spatial design. They encompass two dimensions: technical and aesthetic. Architects must employ their technical knowledge and their aesthetic sensibility when designing a project, which is the final product of spatial design. Each project is thus unique in its way to respond to the client's needs and its context (Larson 1993, 7; Cox and Ireland 2002, 413). Based on these concepts, I summarize the process of spatial design on Figure 7.

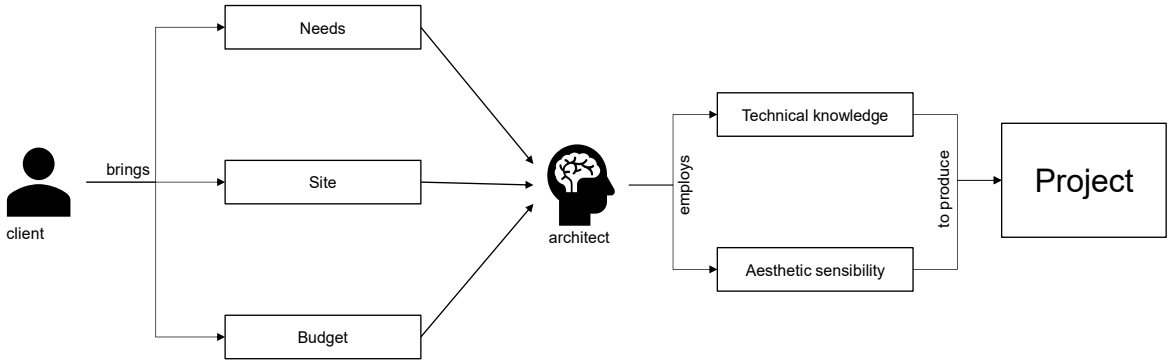


Figure 7 - Architectural design process

Due mainly to the cognitive process involved in aesthetic appreciation, judging an architectural project or judging an architect's body of work can be challenging (Ballantyne 2002b, 48; Sporrong 2014, 7). Aesthetic judgement calls for specific criteria, which would require a thesis on their own (Foisy, Thérien, and Trépanier 2009, 5). For this reason, the aesthetic dimension of architecture will remain out of the scope of this research, as already mentioned in Section 1.1.

4.2 Solicitation methods for procurement of architectural services

There are three main solicitation methods for procurement of architectural services: open tendering, requests for proposals and prize competitions (Strong 1996, 19–20; Volker 2012, 749). In an open tendering, bidders do not submit a design, the awarding process is usually price-based[12], meaning that technical criteria can only be used as qualification criteria. In a

[12] As it will be discussed later (Section 6.2.2.4), an open tendering can be price-based or value-based under the Brazilian regulatory framework.

request for proposals, procurement officials invite previously selected architects or firms to submit a bid, and they may also ask for a preliminary design. The awarding process in this case may be price-based or value-based, meaning that technical criteria can be used as qualification criteria and as evaluation criteria. In a prize competition, the awarding process is quality-based, meaning that the qualification of bidders is assessed and qualified bidders are asked to submit a preliminary design, upon which evaluation criteria are applied (Strong 1996, 19–20).

Each solicitation method has a different target. In an open tendering, procurement officials choose a monetary value; in a request for proposals, procurement officials choose an architect; in a prize competition, procurement officials choose a design (Strong 1996, 19; Volker and Meel 2012, 28). Since the goal of a prize competition is choosing a design, it is suggested that aesthetic qualities of the proposed object should be judged by a jury composed of procurement officials, members of the public and architects (Abramo 2005, 129). An analysis of recent prize competitions in architecture shows that this solicitation method has been used only for services concerning new construction or expansion of buildings (Collyer 2016, 4–5).

Open tendering seems to be procurement officials' favourite method, but it is criticized by architects for it does not take into account the quality of the service delivered (Strong 1996, 28; Council of State Governments in Qiao and Cummings 2003, 224; Baeta 2014). In jurisdictions where the legal framework forbids open tendering for architectural services (for instance, in the European Union), procurement officials are likely to use request for proposals, since this method will assure them that an experienced firm will be chosen (Volker and Meel 2012, 25,27). Nevertheless, some architects regard request for proposals as disguised nepotism (Strong 1996, 9). Prize competitions, too, are not consensual matter amongst architects. In the one hand, some view prize competitions as a fair way of selecting architects, encouraging creative and unconventional solutions (Lewis 1985, 208; Volker and Meel 2012, 27). One the other hand, some criticize prize competitions because they are usually poorly managed and because of the little interaction between architects and clients offered by them (Lewis 1985, 208). Furthermore, in prize competitions architects

must present a preliminary design without being paid for it (Rybczynski 2014, 30). This unpaid cost can be prohibitive for small firms (Strong 1996, 27–28).

As discussed above, the best solicitation method for architectural services is controversial matter (Strong 1996, 28). But in all three solicitation methods reviewed, technical criteria are used as qualification criteria, and they can be used as evaluation criteria in request for proposals and prize competitions. It is suggested that procurement officials set technical criteria based on the characteristics of the desired project (Holt 2010, 318–19; Volker and Meel 2012, 27; Dobbs et al. 2013, 5). In this regard, it would be useful for practitioners to know what technical criteria have been successful in practice for projects of similar characteristics (Molenaar 1997, 3; Arrowsmith, Linarelli, and Wallace Jr 2000, 679; Ruparathna and Hewage 2015, 1). I will review the literature on this topic in the following section.

4.3 Technical criteria in practice

Technical criteria are very important in procurement for architectural services, as hinted above. These criteria may range from traditional ones, e.g. prior experience in designing the type of building being procured, to more unconventional ones, such as "ability to think laterally" (Schaik 2010, 14). However, architects question the suitability of some technical criteria, especially experience, arguing that the ability to design or to propose innovative ideas is not necessarily related to experience (Lewis 1985, 199; Schaik 2010, 14; Volker and Meel 2012, 27; Rybczynski 2014, 31).

But what criteria are actually used in public procurement? Unfortunately, empirical studies on technical criteria for the procurement of architectural services are scarce and concentrated in the European Union (Volker 2012, 751; Sporrong 2014, 3). I will sum up these studies in the following paragraphs.

The most comprehensive research on the matter seems to be Josefin Sporrong's thesis, "Selecting Architectural and Engineering Consultants: Municipal Practices in Sweden" (2014), which includes five of her articles. In one of these papers, "Criteria in consultant

selection: public procurement of architectural and engineering services" (2011), Sporrong applied a survey to find out which criteria are used by Swedish municipal officials. Sporrong does not consider a particular theoretical or conceptual framework; she rather employs the Swedish regulatory framework to analyze her data (Sporrong 2011, 62). Results show that procurement officials hesitate to apply technical evaluation criteria because they find it difficult to judge such criteria. When technical evaluation criteria are used, the most cited are "individual experience of key project personnel", "education" and "personality-related criteria" (Sporrong 2011, 65). Interestingly, none of these are related to the item being procured (the architectural or engineering service), but rather to bidder's characteristics, as reviewed in Section 2.2. Less often cited were criteria such as "technical aspects of design" and "innovative/creative solutions", which are related to the service procured (Sporrong 2011, 66). The author also asked officials what sources of information they used for supporting their selection. The most cited sources were previous experience with providers and references (2011, 67). She notes that such practices conflict with the Swedish regulatory framework, which establishes that all bidders should be treated equally and that procurement officials should not use personal sources of information for selecting bidders (Sporrong 2011, 71).

In a study focused on the Netherlands, Volker and Meel (2012) analyze practices for selecting bidders in public procurement of architectural services, aiming to improve such practices within the bounds of the European Union regulatory framework. They do not employ a particular theoretical or conceptual framework in this paper. Rather, their research is based mainly in a review of the European Union procurement regulations and, to a lesser extent, in four case studies. With these data at hand, they tried to identify the most important issues in procurement for architectural services, from architects' perspective and from procurement officials' perspective (Volker and Meel 2012, 24). They found that European Union regulations on procurement grant a great deal of discretion to procurement officials for devising technical criteria. Furthermore, contrary to the Swedish situation described by Sporrong, Dutch procurement officials employ technical evaluation criteria, including criteria related to the items procured, in the majority of procurement processes for

architectural services. Technical evaluation criteria employed comprise the assessment of a schematic design or even of a detailed design proposal including cost calculations (Volker and Meel 2012, 25). On the other hand, Volker and Meel corroborated that judging technical evaluation criteria is very challenging for procurement officials, who often have to fit a reflective judgement of the quality of submissions within a regulatory framework that stresses the need for objectivity. They recommended to overcome this challenge by granting a bigger role to experts from outside the procuring entity in the evaluation of submissions (Volker and Meel 2012, 29). They also suggest that, within the boundaries established by the regulatory framework, the best solicitation method "depends on the type of project, making a distinction between innovative projects that may require 'naïve' and fresh creativity, and conventional projects that may ask for certainty and risk avoidance" (Volker and Meel 2012, 30). Their argument is in line with what I reviewed in Section 4.2 concerning the relation between choice of solicitation method and the clients' target.

Still focusing on the Dutch context, Professor Leentje Volker analyzed procurement officials' decision-making process in procurement for architectural services in order to provide guidelines for future procurement. She studied procurement officials' judgement of criteria using the concept of sensemaking and investigated how the regulatory framework bounds their sensemaking. Based mainly on an ethnographic approach, she examined two cases of procurement of architectural services. Volker noted that gaining access to procurement information in the Netherlands proved harder than expected (Volker 2012, 751). She concluded that, in an ideal situation, technical criteria for architectural services should be flexible and emerge during the process of evaluation of submissions by procurement officials, but she recognizes that this approach would be hard to justify under the perspective of Dutch laws (Volker 2012, 756).

It must be mentioned that two out of three studies mentioned above forgo any theoretical or conceptual framework in their analysis. This is in line with studies mentioned in Section 3.2 regarding the small role of theory in public procurement research.

Both Sporrong and Volker have pointed that procurement officials find it problematic to judge technical criteria in a context of legal frameworks that demand objectivity, transparency, efficiency and achievement of secondary goals (Volker 2012, 756; Sporrong 2014, 27). Procurement officials' lack of skills for judging architectural services further hardens this problem (Sporrong and Bröchner 2009, 32; Sporrong 2011, 69). Architects have criticized procurement officials' work on technical criteria, stating that procurement officials tend to ask for compliance with formalities instead of judging technical qualities of architects or technical qualities of proposed designs (Volker and Meel 2012, 20).

In what concerns future research possibilities, Volker proposes to explore the relationship between the technical criteria demanded and results in procurement by comparing different cases of procurement procedures (Volker 2012, 757). Sporrong hints towards two research paths that could be useful for practitioners: (1) assessing the influence of current solicitation methods and criteria on the development of skills by architectural firms, and (2) comparing regulatory frameworks and respective selection practices in different jurisdictions, in order to unveil unnecessary complications in legislation (Sporrong 2014, 33).

4.4 Considerations on procurement of architectural services

In this chapter, I examined the literature on procurement of architectural services, starting with a review of the nature of these services, and then focusing on solicitation methods as well as on empirical studies of technical criteria. This literature confirms that it is important to critically analyze past and current criteria, in their respective procurement system and in relation to their respective subject matter of procurement, in order to provide a range of relevant criteria that work in practice. However, there are very few studies on the matter, and I have found none concerning the Brazilian context.

As discussed in Sections 3.11 and 4.3, the subject matter of procurement must be considered when procurement officials determine technical criteria in procurement. Given the examination above on the dimensions of architecture, it would be logical to establish a

link between the technical dimension of architectural services and the technical criteria used for procuring these services. Therefore, I propose to consider technical criteria for architectural services as the point where the technical dimension is incorporated into the procurement process. Technical criteria are thus particularly important in procurement of these services, for they would translate the most important technical requirements of the subject matter of procurement into qualification and evaluation criteria. A criterion that is relevant to the service procured is thus a criterion that operates this translation. In Figure 8 I illustrate the relationship between types of criteria in procurement and the technical dimension in architecture.

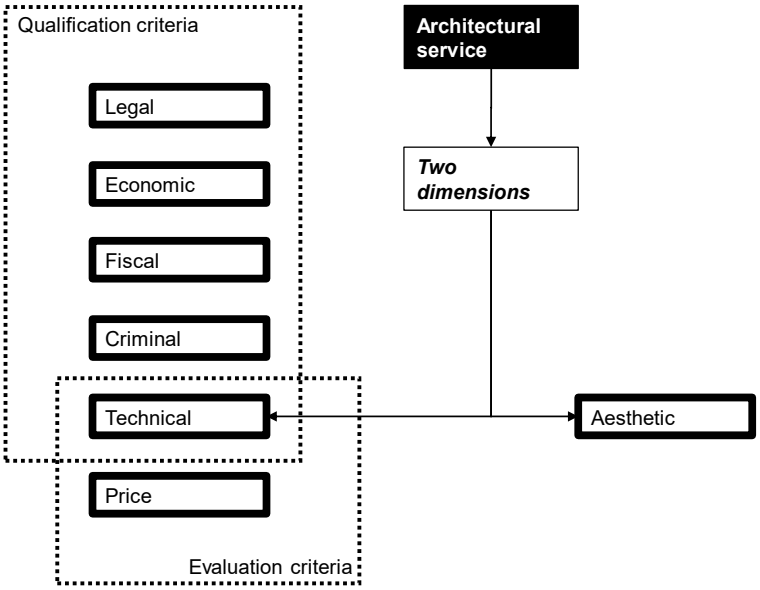


Figure 8 - Relationship between technical dimension and criteria

Previous research on technical criteria for procurement of architectural services have often ignored theoretical or conceptual frameworks (Section 4.3). I will analyze these criteria in close relation to the subject matter of procurement because they ought to be drawn on the most relevant characteristics of the subject matter. My argument is that procurement officials should use their discretion to translate the relevant technical characteristics of architectural services into technical criteria. I will take this matter up in Chapter 5, where I elaborate on the theoretical framework of this research.

5 Theoretical framework and research questions

The concept of theoretical framework is not consensual amongst scholars; hence I will start this chapter with a brief discussion on this matter. I will then review the concept of administrative discretion, which is intrinsic to technical criteria for the procurement of architectural services, and the theory of street-level bureaucracy, which I deem useful for analyzing this concept. Finally, I will deal with how this theory can be applied in this research. This chapter is divided accordingly.

5.1 Concepts of theoretical framework and theory

To begin this discussion on theoretical framework, it is necessary to make clear what I am referring to when I mention it, as well as its related concept of *theory*. Although the definition of theory may be debatable (Weick 1995, 385), theory is usually understood as "a set of concepts and their nominal definition, assertions about the relationships between these concepts, assumptions and knowledge claims" (Parkinson and Drislane 2000), and it should provide an understanding or an explanation of a given phenomenon (Côté and Gingras 2016, 105).

The term theoretical framework is employed in at least two different ways in scholarly literature. The first is generally associated to interpretive traditions of inquiry. In this context, a theoretical framework can be seen as a system of concepts and their relation, used for guiding research, and it is used as a synonym of conceptual framework (Haverland and Yanow 2012, 405; Maxwell 2005, 33; Gerring 2012a, 408). It yields a perspective of the phenomenon under study, rendering a complex subject comprehensible (Kant [1790] 2007, 401; Wittgenstein [1953] 2009, 55; Moles [1956] 1971, 34). Under this view, theories could be *descriptive*, meaning that they would account for "what" questions, providing an understanding of a phenomenon; or *causal*, meaning that they would account for "why" questions, providing an explanation of a phenomenon (Miles and Huberman 1994, 18; Gerring 2012a, 13). However, in this context, theories would be just one element

of a theoretical framework. The researcher's own knowledge, thought experiments and the result of pilot studies may also inform a theoretical framework (Maxwell 2005, 37).

The second view of a theoretical framework is usually akin to a hypothetico-deductive model of science (Haverland and Yanow 2012, 405). Under this tradition of inquiry, a theoretical framework refers to a specific theory that will explain the phenomenon under study, in a variables-based research (Haverland and Yanow 2012, 404; White 2017, 138) . The goal of a theoretical framework would be testing hypotheses that are derived from the theory (Rudner 1966, 10). Theories are seen as being inherently causal; they are means to explain causal relations between variables (Popper [1945] 1985, 376; Whetten 1989, 491; Parkinson and Drislane 2000; Roy 2016, 204). In this sense, a theoretical framework is not a synonym for conceptual framework. Here, the latter is seen as a set of related concepts that can be used to interpret the findings of a study when no theory is available to explain the phenomenon (White 2017, 138).

The purpose of this research is to analyze technical criteria used by procurement officials in Brazil to select providers of architectural services. Thus, I am not concerned with what leads to procurement officials choosing a criterion over another, but instead with understanding what criteria are used and the relationship between criteria and services procured. Hence a theoretical framework which enables the description of a phenomenon seems fit for my purpose.

5.2 Technical criteria as administrative discretion

As Arrowsmith, Linarelli and Wallace Jr have contended, in public procurement, "obtaining value for money requires the exercise of wise commercial discretion on matters such as the qualification of bidders and the evaluation of competing bids" (2000, 19). Technical criteria are elements of the qualification and evaluation processes, and as such, are a matter of procurement officials' discretion. In this sense, procurement officials possess some latitude, bounded by the regulatory framework, for devising technical criteria,

as well as for judging bidders' compliance with these criteria. Therefore, I propose to analyze technical criteria using the concept of discretion.

In everyday language, discretion refers to a person's ability to decide and to act as they wish (Collins 2003; Le Robert 2005). This definition does not consider the limits of discretion in the sphere of public administration. In this case, a clarification of the broader concept is necessary (Swedberg 2012, 22). In the context of this research, I propose to employ the restrictive definition of *administrative discretion*, which refers to discretion taking place in the works of administrative agencies (Banki 1986a; Dukelow 2006). Administrative discretion is not good or bad in itself; however, depending on how it is employed, it can be seen as abusive or even as a danger to democracy (Brandon 2005, 781; Evans 2011, 370; Koven 2019, 216–17). Furthermore, organizational factors have an influence on administrative discretion. These factors may assume different forms, such as peer pressure, group collaboration, or hierarchical imposition (Simon [1947] 1997, 9–10).

Administrative discretion is one of the main issues of implementation studies in public administration and of administrative law (Mello 2010, 430; Evans 2011, 369). Within these fields, it is pervasive in public procurement (Trammell, Abutabenjeh, and Dimand 2020, 656). Hence, I review below how the concept is employed in those two fields.

5.2.1 Discretion in public administration

In public administration studies, administrative discretion generally refers to public agents' "degree of autonomy when executing the tasks entrusted to them" (Demers 2012). Most authors seem to agree that administrative discretion is not boundless; it must be exercised within the limits of laws and regulations (Arendt 1958, 195; Lipsky 1980, 83; Applbaum 1999, 208; Wilson 2000, 342; Carpenter 2001, 16; Beth 2005, 106; Brown, Potoski, and Van Slyke 2006, 325; Alexander and Richmond 2007, 54; Filgueiras and Aranha 2011, 352; Watkins-Hayes 2011, i235; Catney and Henneberry 2012, 551; Keeler 2013, 184). Some scholars, however, see administrative discretion simply as public agents' latitude to act, regardless of laws, regulations or managerial controls (Meier and Bohte 2001, 457; Sowa and Selden 2003, 703; Roman 2013, 28; Henderson, Țiclău, and Balica 2017, 623).

In this sense, administrative discretion is closer to the concept of discretion in everyday language, meaning ability to make any decisions, including those contrary to the law. Still, other scholars associate administrative discretion with deviation from rules and policies (Maynard-Moody and Musheno 2003, 17). It can be contended, therefore, that the concept of administrative discretion is not used uniformly in public administration scholarly literature.

5.2.2 Discretion in administrative law

In the field of administrative law, administrative discretion seems to be a more consensual term than in public administration. It can be defined as choices of action, possessed by a public agent but framed by the law, in the face of a specific circumstance and its context (Dukelow 2006; Garant 2010, 180; Lang, Gondouin, and Inserguet-Brisset 2015). Such ability to make decisions can also be referred to as *discretionary powers* (Guinchard and Montagnier 2009; Garant 2010, 184). The legality of a discretionary decision depends on the rational connection between the content of the law and the choice made (St-Amour 2006, 20; Guinchard and Montagnier 2009). This view is in line with the definition of administrative discretion proposed by Brazilian administrative law scholars (Mello 2010, 430; Catanese, Murta, and Garcia 2011, 1170).

It is important to distinguish administrative discretion from two other concepts in administrative law: *bounded powers* and *arbitrariness*. The concept of bounded powers, or "*pouvoirs liés*", refers to the obligation to do something that is clearly determined by the rule of law (Moreau 1990; Issalys 2009, 62; Garant 2010, 179; Reid 2015b). When the law leaves no room for choices, decisions are not discretionary, but bounded by the law (Beaudoin 2004; Guinchard and Montagnier 2009; Mello 2010, 430; Reid 2015b).

The concept of arbitrariness refers to exceeding the limits of discretionary powers as established by the law (Lang, Gondouin, and Inserguet-Brisset 2015). In administrative law, there must always be limits for public agents' discretion. Such limits are the spirit of the law and the public interest (Garant 2010, 13, 184). When a decision falls outside these limits, it is not considered an act of administrative discretion, but rather an arbitrary act;

the public agent would thus be acting illegally (Laubadère, Venezia, and Gaudemet 1992, 96; Reid 2015a; Prémont 2018). I provide a synthesis of these three concepts and their relation to legality in Figure 9.

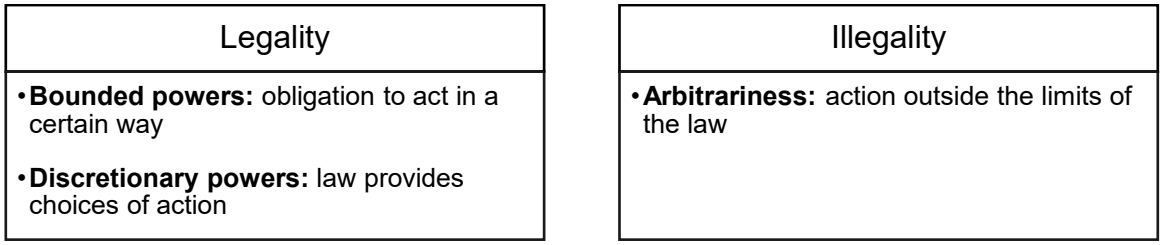


Figure 9 - Discretionary powers and related concepts

5.2.3 Formal discretion and operational discretion

From the review above, one may contend that administrative discretion in public administration studies is related to the practice of making decisions, whereas in administrative law it is related to the range of possible decisions framed by the law. Appropriately, Professor Jennifer Raso (2018, 20) proposes two concepts regarding administrative discretion: (1) formal discretion, which refers to the regulatory space that frames decision-making and is akin to the notion off administrative law; and (2) operational discretion, which refers to the practice of decision-making bounded by rules and is akin to the notion off public administration studies. Raso suggests that both interrelated concepts are needed for understanding "how administrative decision-making is simultaneously constrained and flexible" (2018, 13).

To sum up, the concept of discretion may be regarded in different levels, which I display in Figure 10. This taxonomy, based on the review above, is useful for understanding the different meanings that the term may hold but, in this study, I am concerned with administrative discretion. Granted this multi-level conception of discretion, I will now review the theory which I deem most relevant for analyzing administrative discretion in this research.

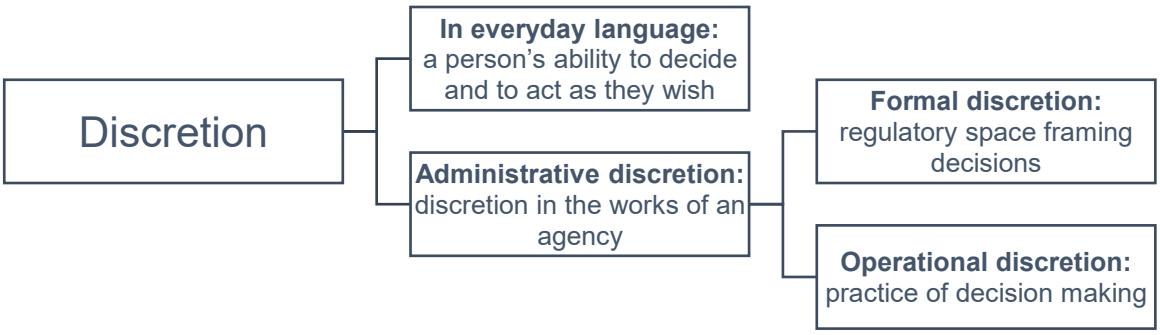


Figure 10 - Taxonomy of discretion

5.3 Theory of street-level bureaucracy

As I brought up in Section 3.2, research in public procurement is not highly grounded on theory. Up to twos-third of papers published on the matter do not present a theoretical framework; when theories are used, they are mostly economic theories, such as theory of auctions and competitive bidding or contract cost prediction (Flynn and Davis 2014, 150; Patrucco, Luzzini, and Ronchi 2017, 242; Koala and Steinfeld 2018, 282; Trammell, Abutabenjeh, and Dimand 2020, 661). While acknowledging that public procurement research may be theoretically eclectic due to its diverse range of disciplines, scholars suggest that studies on this field would benefit from the use of theories that can help practitioners understand their actions (Flynn and Davis 2014, 168; Koala and Steinfeld 2018, 299).

One such theory is the street-level bureaucracy theory, which I will use in this work. It was developed by Professor Michael Lipsky (1969; 1980) to study the outcomes of policies implemented by street-level bureaucrats (Evans 2011, 369; Watkins-Hayes 2011, i235; Erasmus 2014, iii71). His work may be regarded as another groundbreaking contribution on policy implementation studies (Kosar 2011, 299; Catney and Henneberry 2012, 549), such as the works of Selznick (1966), Pressman and Wildawski (1984), and Wilson (2000). Lipsky's novelty lied on his attention to administrative discretion as a source of unintended policy outcomes (Kørnøv, Zhang, and Christensen 2015, 600).

Street-level bureaucracy theory posits that street-level bureaucrats, defined as public agents who "interact with citizens directly and have discretion over significant aspects of citizens'

lives" (Lipsky 1980, 4), hold a high level of administrative discretion which managers cannot fully control (Lipsky 1980, 13). Consequently, the actual policy may significantly diverge from the original policy goals (Lipsky 1980, 17). Lipsky describes actual policy as the sum of individual discretionary decisions made by public agents, which in concert "add up to agency behavior" (1980, 13). He argues that administrative discretion is the main element explaining "the discrepancy between policy declarations and actual policy" in street-level bureaucracies (Lipsky 1980, 17). For him, administrative discretion can be seen as decisions made by public agents in the context of their work within the parameters established by authorities (Lipsky 1980, 83).

Administrative discretion and its resulting possibly divergent outcomes are not inherently bad, according to Lipsky, as long as they serve the public interest (1980, 9, 82). His theory does not focus on administrative discretion as a cause of undesired policy outcomes. Instead, he proposes to analyze the dominant patterns of decision-making and their consequences – in other words, the actual policy (1980, 83, 86). A problem would come up when the outcomes are "biased in ways unintended by the agencies […] or are antithetical to some of their objectives" (Lipsky 1980, 83), as I illustrate on Figure 11. Street-level bureaucracy theory can thus be said to be a descriptive theory, focusing on public agents' acts and their consequences. This approach is in line with one of the main objectives of social sciences, which would be to portray the practices of social actors and their repercussions (Dewey [1927] 2016, 66; Mills 1967, 185; Bourdieu [1997] 2003, 90).

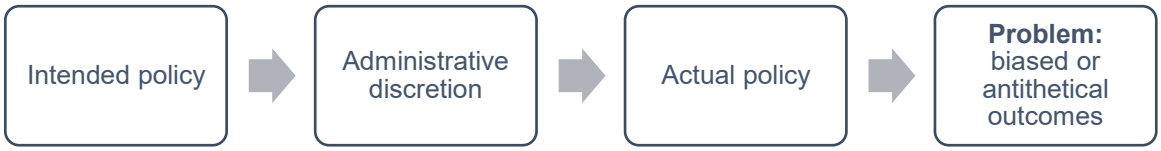


Figure 11 - Street-level bureaucracy framework, based on Lipsky's theory

Drawing from his "observations of the collective behavior of public service organizations" (1980, xi), Lipsky was able to recognize the dominant patterns of practice in the agencies he was studying (1980, 86). He noted four dominant patterns: rationing services, controlling clients, husbanding resources, and managing the consequences of routine practice (Lipsky 1980, 86). These patterns were at odds with intended policy, thus

challenging a traditional view that public agents' actions can be imposed by organizational superiors (Moe 1984, 744; Leroy 1994, 881). As noted by Simon, public agents may oppose policies which they perceive as originating outside their organization and being imposed without their consent (Simon [1947] 1997, 171, 241).

One important problem of street-level bureaucracy theory is establishing the borderline where practices framed by administrative discretion become actual policy (Maynard-Moody and Portillo 2012, 272; Lipsky 2019a, 401). Lipsky suggests that a practice is a single decision or action applied to a specific case; in isolation, it can hardly be described as actual policy (2019a, 403). Bureaucrats would make actual policy when the sum of their discretionary decisions takes the shape of a standardized organizational behaviour (Lipsky 2019a, 401). In other words, one can expect a certain pattern of decisions in actual policy (Lipsky 2019a, 403). It is difficult, however, to locate the tipping point where a set of apparently random practices would become actual policy. For determining what set of practices are actual policy, it is advised that researchers look for cumulative results of bureaucrats discretionary decisions (Maynard-Moody and Portillo 2012, 272).

5.4 Applicability of the street-level bureaucracy theory

Another issue with street-level bureaucracy theory is that it does not describe in which contexts it can be applied (Kosar 2011, 301). Scholars suggest that the two main elements of the theory are direct contact with clients or citizens, and meaningful level of discretion (Brandon 2005, 780; Maynard-Moody and Portillo 2012, 263). Thus, procurement officials, who employ their administrative discretion for devising technical criteria in procurement, cannot be considered street-level bureaucrats, for they do not work directly with clients or citizens. Therefore, it is necessary to consider whether the theory would be applicable in their case, which I discuss below.

5.4.1 Categorizing procurement officials

When analyzing the work of civil servants, scholars usually categorize them into two groups: traditional bureaucrats and professional bureaucrats (Simard and Bernier 1992, 60–

61; Burris 1993, 82; Parkin 1994, 61; Ferlie and Geraghty 2005, 423). Traditional bureaucrats work in what Professor Henry Mintzberg called machine bureaucracies. These organizations are close to the Weberian ideal type of bureaucracy, where standardization of procedures is highly valued. Accordingly, the work of traditional bureaucrats is characterized by the application of existing rules to particular cases, within a framework of formal hierarchical control. Then, there should be little discretion for these workers when they accomplish their tasks (Mintzberg 1983, 163–64; Burke 1988, 142; Parkin 1994, 23; Hall 2004, 507).

Professional bureaucrats, on the other hand, work in professional bureaucracies, as Mintzberg named those organizations which rely on the skills and knowledge of their workforce. Professional bureaucrats defining characteristic is that a high degree of discretion, stemming from their specialized expertise, is embedded in their tasks. Street-level bureaucrats, such as doctors and teachers, as well as other professionals working for public or private organizations – e.g., accountants, lawyers and architects – can be considered professional bureaucrats (Mintzberg 1983, 189; Parkin 1994, 21–22; Bowman et al. 2004, 34; Ferlie and Geraghty 2005, 427).

Brazilian procurement officials cannot be viewed as professional bureaucrats, since there is very little training for developing specialized knowledge and there is no professional certification (Santos 2018, 240; Fenili 2019) – this issue will be developed in Section 6.1.3. Furthermore, they work in a highly regulated environment and under a formal hierarchy. However, unlike traditional bureaucrats, they do hold a high degree of discretion, especially in what concerns decisions about technical criteria. Such discretion is afforded by the legal framework, as I will review in Section 6.2.7. In this regard, their work can be seen as a hybrid between professional bureaucrats' and traditional bureaucrats' work.

5.4.2 Relevance for the work of procurement officials

As discussed above, Brazilian procurement officials do not have direct contact with clients, which is a defining characteristic of street-level bureaucrats. Nevertheless, it can be contended that their work is similar to the work of street-level bureaucrats in at least two

ways. First, procurement officials perform tasks in a significantly regulated environment, paradoxically holding a strong level of autonomy, which is also the case for street-level bureaucrats (Brandon 2005, 780; Maynard-Moody and Portillo 2012, 258–59). For instance, procurement officials may decide to systematically employ only one solicitation method even though the law provides a range of possible methods, as reviewed in Section 3.8, in the same manner that police officers may concentrate in one type of offenses and overlook other types (Maynard-Moody and Portillo 2012, 271).

Second, street-level bureaucrats work at the boundary of the state and the citizen (Maynard-Moody and Portillo 2012, 224); likewise procurement officials work at the boundary of the public and the private domains, as reviewed in Section 3.1. Working at this interface grants great autonomy to both types of bureaucrats, for they may decide or influence on whom public money will be spent and their supervisors have limited control over their decisions (Larson 1977, 189; Maynard-Moody and Portillo 2012, 259; Lipsky 2019a, 404).

These two similarities indicate that street-level bureaucracy theory ought to be relevant for the analysis of Brazilian procurement officials' work. As Prier and McCue noted, in a context of inadequate procurement environment and of a complex regulatory framework, outputs of public procurement are seldom in line with desired policies (Prier and McCue 2009, 336). Moreover, street-level bureaucracy theory has unveiled that discretion can be problematic for workers at any level, and that discretion can be used by bureaucrats to set a meaningful direction in their work (Ferlie and Geraghty 2005, 424; Maynard-Moody and Portillo 2012, 253). Professor Lipsky himself acknowledged that the concept of discretion in street-level bureaucracy theory "should apply to the systematic study of bureaucrats at any level" (Lipsky 2019b, 67 min). Hence street-level bureaucracy theory would be applicable to other types of workers in public organizations, including procurement officials in the Brazilian context.

5.4.3 Street-level bureaucracy theory at street-level and beyond

Many scholars have applied Lipsky's theory for researching discretion amongst street-level bureaucrats. For instance, Maynard-Moody and Musheno (2003, 94) used storytelling to

unveil how cops, teachers and counselors apply their discretion, responding to citizens' needs in ways that often conflicted with policy goals; Evans (2011, 381) performed a case study confirming that management has limited control upon the way social workers apply their discretion; Hirata (2016, 33) used quantitative and qualitative analyses to reveal how environmental auditors' discretionary decisions can be affected by ambiguous legislation; Vohnsen (2017, 139) employed observations to lay bare a case in which discretion applied by social workers yielded in what she called absurd policy implementation – the actual policy was completely at odds with the intended policy.

Albeit less frequently, street-level bureaucracy theory has been used for studying the work of professional bureaucrats which are not street-level bureaucrats. For instance, Catney and Henneberry (2012), and Kørnøv, Zhang and Christensen (2015) applied this theory in the analysis of urban planners' discretionary decisions. Like Lipsky's work (1980, 86), their case studies unveiled strategies adopted by these professional bureaucrats to cope with their work conditions and avoid potential blame, but their strategies were different from street-level bureaucrats' strategies unveiled by Lipsky (Catney and Henneberry 2012, 560; Kørnøv, Zhang, and Christensen 2015, 612). Noteworthy, these two studies did not acknowledge that they were applying street-level bureaucracy on bureaucrats that are not street-level. Instead, they treated urban planners as street-level bureaucrats. In a different vein, Peeters and Widlak studied the outcomes of information technology bureaucrats' decisions, focusing on the unintended consequences of their work. These consequences included the reduction of other bureaucrats' discretion (Peeters and Widlak 2018, 181). This latter study was not focused on Lipsky's theory, but it employed the concept of discretion in the same manner, suggesting that discretion amongst any type of bureaucrats may lead to actual policy divergent from intended policy. In yet another example, Ustek-Spilda framed her research by street-level bureaucracy theory to study statisticians' discretion in their work. She unveiled how they act like *de facto* policy-makers when they translate statistical guidelines in their tasks (Ustek-Spilda 2020, 290). Finally, Brattström and Hellström employed street-level bureaucracy theory in a study focused on professionals working in research and development. They conclude that the level of discretion is high in

agencies whose work is based on technical knowledge (Brattström and Hellström 2019, 241).

Street-level bureaucracy theory has also been extensively used for the study of traditional bureaucrats which are not street-level bureaucrats, such as court clerks, tax auditors and correction officers (Bosma et al. 2018, 1011; Jensen 2018, 1134; Raaphorst and Groeneveld 2018, 1175; Keulemans and Walle 2020, 334). The theory has even been applied successfully in research concerning contracted-out welfare advisors and employers of immigrant workforce (Nisbet 2018, 1105; Kaufman 2020, 209). These studies have corroborated the usefulness of this theory in a variety of settings where discretion prevails (Maynard-Moody and Portillo 2012, 262–63).

However, there are very few studies using street-level bureaucracy theory in the context of public procurement. I was able to spot only two relevant studies. The first is the research by Roman (2013), who tested the causal relationship between perceived administrative discretion (independent variable) and assumed role (dependent variable) amongst procurement officials (2013, 52). Both variables were measured by means of the same survey (Roman 2013, 58). He concludes that the level of perceived administrative discretion explains the enactment of certain roles amongst procurement officials (Roman 2013, 85). The second is the study by Keeler (2013), who employed a document analysis of contracts to describe outsourced administrative discretion in the case of solid waste collection services. Although Keeler does not explicitly mention Lipsky's theory, she employs the concept of discretion in the same manner (Keeler 2013, 184). By means of her analysis, she was able to spot potential opportunities for practices contrary to intended policy (Keeler 2013, 186). These two studies provide insightful examples of street-level bureaucracy theory applied on public procurement using quantitative methods.

5.5 Methods in street-level bureaucracy theory

Traditionally, research based on street-level bureaucracy theory relies on interpretive approaches supported by data generated from ethnography, observations and interviews

(Meyers and Vorsanger 2007, 159; Musheno and Maynard-Moody 2015, 171). Such approaches still dominate research based on street-level bureaucracy theory, being used to examine discretion amongst street-level bureaucrats, such as social workers, healthcare workers, teachers and cops (Jensen 2018, 1135; Hand 2018, 1150; Feltham-King and Macleod 2020, 34; Lotta and Marques 2020, 348; Musheno and Maynard-Moody 2015, 172). However, recent qualitative studies have diversified their sources of data. Instead of interviewing street-level bureaucrats themselves, scholars have interacted with clients and regulators to gain insights about street-level bureaucrats' discretionary decisions (Schmälter 2019, 6; Kaufman 2020, 209). In these traditional applications, the theory is employed in conceptual frameworks aiming to describe a phenomenon, namely the disconnection between intended policies and practices (Brandon 2005, 780).

Researchers have also taken on quantitative approaches to examine causal relationships in street-level bureaucrats' discretion. These studies are based on electronic surveys applied on bureaucrats such as employment service workers, teachers and tax auditors (Parys and Struyven 2018, 1712; Baviskar 2019, 533; Engen, Steijn, and Tummers 2019, 101; Keulemans and Walle 2020, 334). These scholars employ street-level bureaucracy as hypotheses-generating theory. They take for granted that there will be deviations between intended policy and policy in practice; the theory is applied as means to explain causal relationships between contextual factors and public agents' decision.

To a lesser extent, researchers have employed administrative data to base their findings in both qualitative and quantitative approaches supported by street-level bureaucracy theory. In this vein, Bosma et al. (2018, 1011) employed administrative data, combined with a survey amongst prisoners, to assess which factors influence prison officers' discretion; while Nisbet (2018, 1105) used administrative data alongside interviews with migrants to assess the implementation of immigration policies.

Despite calls for combining methodological approaches in research framed by street-level bureaucracy theory (Buffat 2015, 158; Musheno and Maynard-Moody 2015, 171), mixed methods remain marginally employed. Hirata (2016, 4), for instance, gathered data by

means of in-depth interviews with regulators, businesspeople and managers; combined with observations and with a national survey amongst street-level bureaucrats, to analyze environmental auditors' interpretation and application of ambiguous legislation.

The review above shows that methods and data employed in street-level bureaucracy theory are not any longer restricted to time and energy consuming ethnographic approaches (Meyers and Vorsanger 2007, 159), which are best exemplified by Lipsky's original work (1980) and by Maynard-Moody and Musheno's (2003) influential study on cops, teachers and counsellors. Recent work has employed diverse data sources and methods to answer diverse questions related to street-level bureaucracy theory. Thus, according to the archetypes of methodological fit presented by Edmonson and McManus (2007, 1160), research on street-level bureaucracy theory is not a nascent theory anymore, it is evolving into intermediate theory, where exploratory statistics and content analyses can be undertaken to test propositions and constructs.

Since this theory is applicable in studies where discretion is an important element, such as research on public procurement, we may conclude that the analysis of discretionary decisions in procurement is not restricted to interpretive approaches based on ethnography, observations and interviews. Instead, it may employ both quantitative and qualitative types of data, in line with the intermediate status of this theory.

5.6 Street-level bureaucracy theory and technical criteria

As mentioned in Section 5.4.2, street-level bureaucracy theory offers a useful model for the study of procurement officials' work. So, I propose to apply the theory to procurement officials' discretion when devising technical criteria for the procurement of architectural services. Using Figure 11 as a base, I show how Lipsky's model can be adapted to this research in Figure 12. The intended policy in this case would correspond to regulations on procurement, which determine the formal administrative discretion that establish the choice of technical criteria at the disposition of procurement officials. Procurement

officials, in turn, apply this discretion in the criteria they use in procurement documents – the operational discretion. A problem would emerge when this operational discretion does not comply with the formal discretion – in other words, when the criteria used is at odds with the contents of the regulations on procurement.

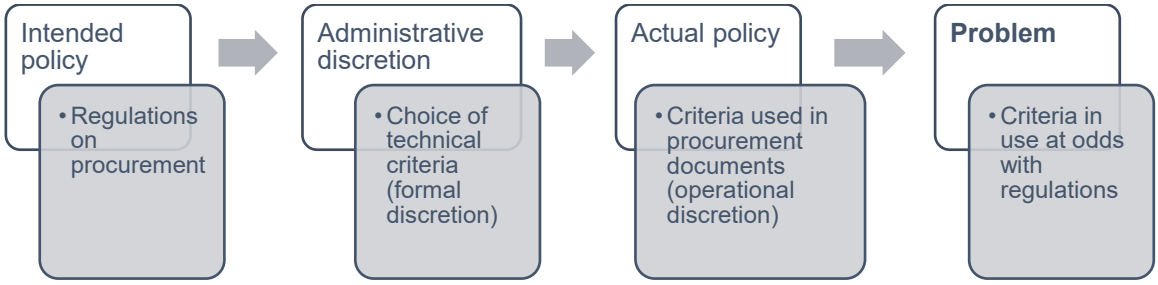


Figure 12 - Street-Level Bureaucracy theory applied in this research

In the next Section I will discuss how this theoretical framework translates into research questions.

5.7 Research questions

Arguably due to the scant literature on the matter, Patrucco, Luzzini and Ronchi (2017, 263) suggest that the limits of procurement officials' administrative discretion is a topic that should be addressed in future research on procurement. In line with this proposition, my purpose in this study is to analyze technical criteria used by procurement officials in Brazil to select providers of architectural services. Street-level bureaucracy theory proposes to analyze discrepancies between actual policy and intended policy. Basing my analysis on street-level bureaucracy theory, the main question in this study is *which actual policies concerning technical criteria for procurement of architectural services deviate from intended policies on procurement*? Scholars suggest that, for this type of question, an effective approach is to analyze the regulatory framework in a jurisdiction and compare it with jurisdiction-wide practices (Valverde, Johns, and Raso 2018, 126). Accordingly, this question presupposes answering the following sub-questions.

a) What is the intended policy for the procurement of architectural services? This sub-question calls for an examination of regulations on procurement in Brazil.

Concerning actual policy, the sub-questions below call for an examination of practices regarding procurement of architectural services in Brazil.

b) What solicitation methods are employed for the procurement of architectural services?
c) What architectural services are procured?
d) What technical criteria are used?
e) What are the actual practices of procurement of architectural services?
f) What are the dominant patterns of practice that add up to actual policy?

Sub-questions (b), (c) and (d) are important because solicitation methods and technical criteria must be coherent with services procured. Thus, answering these sub-questions will point out actual practices (e), which are a result of procurement officials' discretion on the matters of technical criteria and the interrelated concepts of services procured and solicitation methods. From the analysis of actual practices, I will trace the dominant patterns of practice (f), which add up to actual policy, as suggested by Lipsky (1980, 83).

The sub-questions above call for a comparison between intended policies and actual practices in procurement of architectural services in Brazil. Yet, such comparison calls for an analysis of the context in which these policies and practices take place. To understand practices in public administration, one must first analyze the rules that shape these practices and the context in which such rules are applied (Rawls 1955, 17, 27). Accordingly, in Chapter 6 I analyze the Brazilian procurement system; in Chapter 7 I approach the intended policy on the matter; in Chapter 8 I will review the research design to retrieve information on actual practices; and in Chapter 9 I will review actual practices in the light of current regulations. Scholars have employed this strategy for examining the discrepancies between policy and practice. Some examples are the work by Raso (2018, 13) about discretion in Canadian public benefits programs, Feltham-King and Macleod's research (2020, 36) on the gap between official risk management policies and healthcare workers' implementation of these policies, and Sporrong's research (2011, 62) about criteria employed for selection of architects in Swedish municipalities.

6 Analysis of the procurement system in Brazil

The understanding of a procurement system requires both the analysis of its procurement environment and of its regulatory framework (Arrowsmith, Linarelli, and Wallace Jr 2000, 18; Thai 2001, 33; 2009, 20; Prier and McCue 2009, 334). These concepts have been presented in Chapter 3. Here, I will discuss them in the Brazilian context. The first part of this chapter is dedicated to an overview of the procurement environment in Brazil, based on scholarly and grey literature. In the second part I review the Brazilian regulatory framework for public procurement, drawing on laws and regulations and on administrative law scholarly literature. I also present the most important features regarding procurement for architectural services in the new Brazilian bill for public procurement.

6.1 Procurement environment in Brazil

As mentioned in Section 3.3, an ideal procurement environment is supposed to feature effective enforcement of the regulatory framework, a functional organization of procurement, as well as capable personnel with good working conditions (Arrowsmith, Linarelli, and Wallace Jr 2000, 18–19; Thai 2009, 9–10). I examine these features in the Brazilian context below.

6.1.1 Enforcement

To start the discussion on enforcement, it is noteworthy that the system of public accountability is considered very weak in Brazil (Candler 2002, 302; Michener, Contreras, and Niskier 2018, 625), which might be an indication of low enforcement in general.

Compliance with the regulatory framework of public procurement is overseen by Audit Offices in federal, state and municipal levels (Figueiredo 2003, 17; Diniz 2014, 265; Garcia Agnelli 2016, 198; Lino and Aquino 2017, 27). Thus, more than 22 thousand municipal, state and federal procuring entities report to 34 different Audit Offices (Lino and Aquino 2017, 33). These offices are supposed to be independent from the executive, the legislative and the judiciary branches of governments (Rosilho 2016, 48), because they may examine

expenditures of all components of the administration (Diniz 2014, 277). However, they do not hold enforcement power (Lino and Aquino 2017, 38). The conclusions from their auditing procedures must be submitted to the respective legislative branch, which will then judge whether corrective or punitive measures ought to be taken (Rosilho 2016, 273).

A 2018 survey amongst Brazilian civil servants unveiled that, surprisingly, the majority of them believed that civil servants should not act strictly in accordance with rules and regulations in force[13] (Enap 2018, 27). This would suggest the need for a strong oversight. However, Audit Offices' oversight of public procurement is far from sufficient (Fabre 2014, 171). An empirical study on the activities of the Federal Audit Office (TCU) from 1993 to 2009 unveiled that procurement was the focus of less than 5% of its auditing procedures (Menezes 2012, 43). Given the amount of public money spent in procurement, this low figure might hint a lack of political interest in complying with the procurement regulatory framework. TCU's personnel is considered highly qualified (Fiuza and Medeiros 2014, 94), but their technical work has often been ignored by the Office's direction (Figueiredo 2003, 18). Moreover, elected politicians influence the nomination of high and middle bureaucratic managers in TCU (Garcia Agnelli 2016, 209), who may steer the priority order of auditing procedures (Menezes 2012, 48). Thus, the level of independence of TCU can be considered a questionable matter.

6.1.2 Organization

Regarding the organization of the system, the literature suggests that the Brazilian public administration is very fragmented. There is little homogeneity in procedures (Gomes and Falcao-Martins 2012, 98; Fabre 2014, 171; Fernandes 2016, 428) and no centralized office for regulation or for conducting transactions in public procurement. Effectiveness levels are very different from one public organization to another (Bersch, Praça, and Taylor 2017b, 110). Brazilian procuring entities are also notorious for not honouring payments in their due dates, with the connivance of Audit Offices (World Bank 2004, 21; Niebuhr 2016). Such

[13] In the original: "*Um grupo de 62,6% dos respondentes acreditam que 'o servidor público não deve agir estritamente de acordo com as normas e os regulamentos vigentes*.'"

behaviour may put providers in a risky financial situation, discouraging potential bidders from participating in public procurement (World Bank 2004, xiii).

One positive feature of the procurement organization in Brazil is the e-procurement platform of the federal administration, known as *Comprasnet*, which is considered the most important innovation in Brazilian public procurement since the adoption of Law 8.666 (Fernandes 2016, 423). This system is regarded as rather advanced even when compared to most e-procurement systems in other jurisdictions (Ruparathna and Hewage 2015, 8). *Comprasnet* is both a tool for disclosure of information concerning public procurement and an online bidding platform. The implementation of *Comprasnet* reduced entry costs for bidders, thus attracting a large array of potential providers, including small and medium enterprises (Mota and Rodrigues Filho 2011, 322; Szerman 2012, 92; Costa Jr 2016, 60). *Comprasnet* gained a boost thanks to the adoption of reverse auctions by Law 10.520 (Mota and Rodrigues Filho 2011, 322; Fernandes 2014, 21; Costa Jr 2016, 55), which will be discussed in Section 6.2.3. In 2017, 99% of procurement procedures concerning federal organizations were realized by means of *Comprasnet* (MPOG 2017b). However, it is not known to what extent this system is efficient regarding contracts being signed and actual delivery of construction, goods and services. I will provide more information on *Comprasnet* in Section 6.2.10.

6.1.3 Personnel

Scholars have noted that professionalism of public officials in Brazil is higher than in other developing countries, but the level of qualification amongst Brazilian public officials is very uneven (Cavalcante and Carvalho 2017, 2–3). Besides, highly qualified officials are still the minority of the public workforce (Cavalcante and Carvalho 2017, 21).

In what concerns working conditions for procurement officials, there is neither a career path nor incentives to work in this field. As a result, turnover is high amongst them (World Bank 2004, 12; Souza 2016, 185). Training for procurement officials is also neglected, so they often lack the skills necessary to perform their functions (World Bank 2004, 13; Fabre 2014, 171; Costa Jr 2016, 88). An empirical study unveiled that the disconnection

between skills needed and available skills is particularly noticeable amongst procurement officials in charge of architectural and engineering services (Acco in Freire et al. 2016, 83).

The lack of skills and training also leads to a negative impact on the choice of criteria in public procurement. For instance, empirical studies found that the use of outdated economic qualification criteria (Machado 2006, 135) and the use of criteria employed in previous procurement processes without critical analysis (Moreira 2000, 8; Machado 2006, 150) are related to procurement officials' lack of skills and lack of training.

Although there are no studies on the relation between procurement officials' skills and technical criteria in procurement of architectural services in Brazil, it is reasonable to presuppose that lacking skills will have a negative effect on procurement officials' capacity to select the best provider of architectural services (Meier and Hill 2005, 65). Choosing an unqualified architect, in turn, may lead to incomplete specifications, sketchy designs and incorrect estimates, which might result in cost overruns and delayed implementation (World Bank 2004, 21–22; Zanferdini 2011, 141; Batista 2015, 366; Fernandes 2016, 130).

6.1.4 Comments on the procurement environment

As mentioned in the preceding sections, the independence of oversight entities in Brazil is questionable. Besides, public procurement does not seem to be a priority for them. In this light, enforcement can hardly be considered efficient.

The Brazilian system is very fragmented, lacking a central entity for regulation or for conducting transactions, which may result in different organizations using different methods for procuring the same items. The system thus can neither be considered centralized nor its procedures can be considered standard, which are the main positive features in the organization of procurement.

The high turnover and deficient training have an impact on the level of skills of procurement officials. It may be argued that the lack of oversight provides a high level of operational discretion to procurement officials. Nevertheless, low skills coupled with little

enforcement in a fragmented system do not seem to be favorable for an adequate procurement environment in Brazil and this combination might provide ample room for arbitrary decisions. Yet, the apparent success of *Comprasnet* reminds us that there are pockets of effectiveness which may set forth improvements in the Brazilian system.

6.2 Regulatory framework in Brazil

Brazil is seen as a maximalist jurisdiction in what concerns the public procurement regulatory framework (Schapper, Malta, and Gilbert 2006, 6; Schapper and Malta 2011, 11; Fernandes 2014, 24). This regulation-intensive approach is due to lawmakers' focus on controlling corruption, granting low priority to secondary objectives and even to economic competition in procurement (Motta 2010, 161; Fiuza and Medeiros 2014, 14; Mourão and Cantu 2014, 76).

The Brazilian government set up a web page to bring together all legislation regarding procurement at the federal level (Brasil 2021). There were 201 rules listed in that page in March 2021[14]. One must add rules that may exist at state and municipal levels. Furthermore, each public organization may adopt specific rules for their own procurement procedures (Moreira 2000, 8; Calasans Jr 2011, 527). Hence it is not practically possible in this research to provide a comprehensive review of the regulatory framework.

For this review, I will focus on the principal sources of law framing public procurement in Brazil, namely the Constitution, Law 8.666, Law 10.520 and Law 12.462, as well as on the legal instruments regulating these laws in what regards procurement of professional services at the federal level.

Since this research deals with procurement of architectural services, I also provide an overview on regulations concerning architecture in Brazil. Finally, I will outline Brazilian regulations concerning transparency in public procurement. Transparency regulations are

[14] In May 2018 there were 376 rules listed in that same web page (Brasil 2017a), which hints that there has been an effort to reduce the number of rules regarding public procurement.

important here because they determine the theoretical availability of documents that could be used as sources of data for this research.

6.2.1 Brazilian Constitution

The Brazilian Constitution, adopted in 1988, addresses public procurement in its Articles 22 and 37. Article 22 grants to the federal government the authority to legislate on public procurement for all levels of public administration – federal, state or municipal (Brasil 1988, Art. 22 item XXVII). Article 37 provides general guidelines for the legislation on public procurement, establishing that the law must assure that all bidders will be treated equally. It even specifies that technical qualification criteria must be limited to requirements deemed essential for ensuring compliance with the subject matter of procurement[15] (Brasil 1988, Art. 37 item XXI).

The federal government adopted many legal instruments for regulating Art. 37 of the Constitution. The most important laws concerning public procurement are Law 8.666, which is the framework law regulating public procurement; Law 10.520, which introduces reverse auctions as a solicitation method; and Law 12.462, which introduces yet another solicitation method, the differentiated regime for public procurement – RDC (*regime diferenciado de contratações*) (Mello 2010, 531; Fleury 2016, 89). I will discuss the main features of these laws in the following sections.

6.2.2 Law 8.666 – Public procurement and contracts

6.2.2.1 Application

Law 8.666, adopted in 1993, is the first law regulating Art. 37 of the Constitution, and it serves as the primary source of guidance for Brazilian public procurement (Mello 2010, 531; Fiuza and Medeiros 2014, 7). This law determines that, as a general rule, all public administration entities from the federal, state and municipal spheres must obtain goods,

[15] In the original: *"[o] processo de licitação pública (...) somente permitirá as exigências de qualificação técnica e econômica indispensáveis à garantia do cumprimento das obrigações"*.

services or construction from third parties by means of public procurement, bar cases where procurement is not mandatory or cases where procurement is unenforceable (Brasil 1993, Art. 1, Art. 2). Art. 24 of Law 8.666 lists the instances where public procurement is not mandatory, which included *construction and engineering services* evaluated in less than R$15.000,00 and goods or services evaluated in less than R$8.000,00[16]. Art. 25 provides the instances where public procurement is unenforceable, which are those lacking viable economic competition – e.g., for the restoration of a work of art by the artist who produced it.

6.2.2.2 Subject matter of procurement

Since it is the general rule for public procurement, Law 8.666 regulates procurement of any type of subject matter of procurement. It establishes specific procedures for the procurement of construction and services (Brasil 1993, Section III); for the procurement of specialized technical professional services (Brasil 1993, Section IV); and for the procurement of goods (Brasil 1993, Section V).

The law defines *service* as any activity performed to obtain a utility for the administration, including technical professional services[17] (Brasil 1993, Art. 6). The law does not provide a definition of *specialized technical professional services*, but it lists activities which are considered as such, including those related to technical studies, planning, basic and execution projects, technical consulting, and supervision of construction[18] (Brasil 1993, Art. 13). Due to their importance in the procurement of architectural services, I will discuss the concepts of basic project and execution project below. These terms are employed in all

[16] These values were updated in June 2018 – see note 20.

[17] In the original: "*toda atividade destinada a obter determinada utilidade de interesse para a Administração, tais como: demolição, conserto, instalação, montagem, operação, conservação, reparação, adaptação, manutenção, transporte, locação de bens, publicidade, seguro ou trabalhos técnico-profissionais*".

[18] In the original: "*trabalhos relativos a: estudos técnicos, planejamentos e projetos básicos ou executivos; (...) pareceres, perícias e avaliações em geral; (...) assessorias ou consultorias técnicas e auditorias financeiras ou tributárias; (...) fiscalização, supervisão ou gerenciamento de obras ou serviços*".

procurement regulations in Brazil – although they are absent from regulations on architecture[19].

6.2.2.3 Basic project and execution project

Law 8.666 defines two terms related to the concept of project, which are important for architectural services. The first is the basic project, which is the set of elements (drawings, specifications and budget) which characterize a future construction that will be the subject matter of a procurement process. The second is the execution project, defined as the set of elements that are necessary for the complete execution of construction (Brasil 1993, Art. 6, IX, X). The execution project is derived from the basic project, being a more detailed version of the latter. The basic project may include only architectural design, whereas the execution project must comprise architectural design and all necessary engineering design, most commonly those regarding civil, electrical and mechanical engineering. The latter are usually referred to as complementary projects (Cichinelli 2008). In sum, the basic project is necessary for the procurement of construction, and the execution project, which comprises the architectural project and respective complementary projects, is necessary for construction itself (Fernandes 2016, 135–36).

Under Law 8.666, an execution project may be procured separately, or it may be included in the procurement for construction, or still it may be procured alongside the basic project (Brasil 1993, Art. 7). Accordingly, there are three possible sequences of procurement procedures from basic project to construction, as shown in Figure 13. Since a project is the product of a design activity, in this study I consider the basic project as the product of the activity *basic design*, and execution project as the product of the activity *execution design*.

[19] The terms *basic project* and *execution project* are not mentioned in regulations concerning architecture in Brazil. However, the Brazilian Institute of Architects (IAB – *Instituto de arquitetos do Brasil*), in its guide for development of architectural projects, apply the terms project for approval (*projeto de aprovação*) and project for execution (*projeto de execuçao*) to the concepts of basic project and execution project, respectively (IAB 2018, 3).

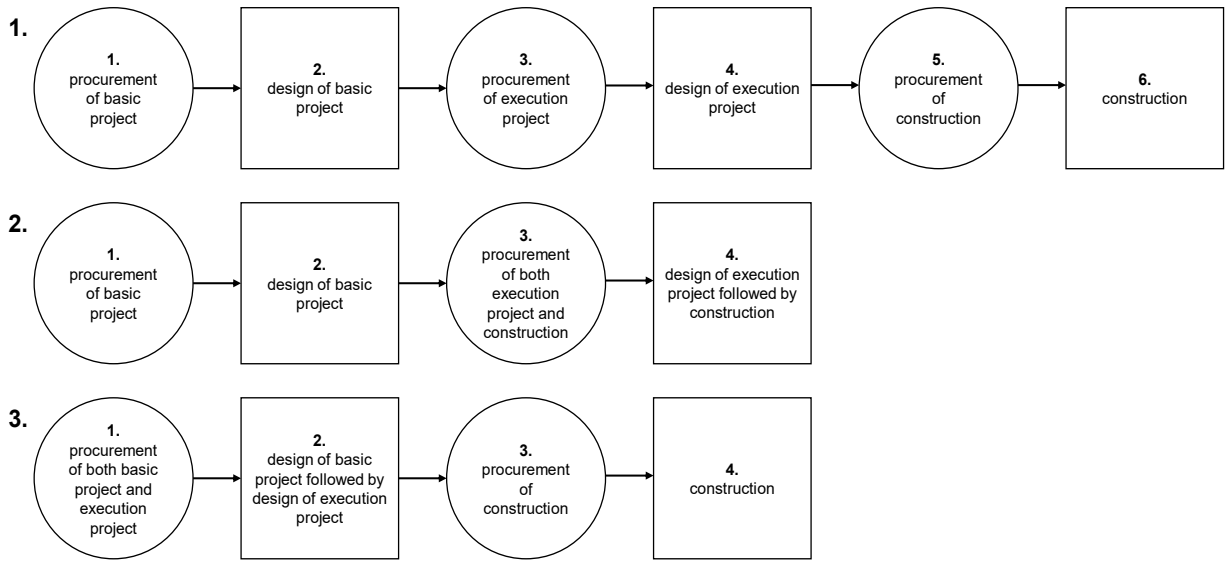


Figure 13 - Possible sequences of procurement procedures for construction

6.2.2.4 Solicitation methods

Article 22 of Law 8.666 establishes four solicitation methods for procurement: (1) open tendering, in which all eligible bidders may participate; (2) request for quotations, in which any provider may show their interest to offer a good or service for the government, who may then decide to buy it or otherwise; (3) request for proposals, in which the government calls upon at least three potential providers; and (4) prize competition, in which any eligible person or entity may submit a technical, artistic or scientific work in exchange of a prize (Brasil 1993).

Article 23 of Law 8.666 determines that the solicitation methods which can be employed in a procurement procedure depend on the estimated value of the contract. For *construction and engineering services*, request for proposals may be used for contracts up to R$ 150.000,00; request for quotations must be used for contracts up to R$ 1.500.000,00; and open tendering must be used for contracts above R$ 1.500.000,00. For other types of services, request for proposals may be used for contracts up to R$ 80.000,00; request for

quotations must be used for contracts up to R$ 650.000,00; and open tendering must be used for contracts above R$ 650.000,00[20].

In all solicitation methods established by Law 8.666, bidders are pre-qualified (Brasil 1993, Arts. 22 and 52), meaning that qualification of all bidders must be assessed before submissions are analyzed, as reviewed in Section 3.10.2.

Open tendering, request for quotations and request for proposals are very similar solicitation methods under Law 8.666 (Fiuza and Medeiros 2014, 34). According to Art. 45, price-based and value-based awarding process may be used in all three methods. Besides, request for quotations and request for proposals admit the participation of any qualified bidder (Brasil 1993, Art. 22 § 2, § 3), which makes them very much alike open tendering. All three solicitation methods also presuppose compliance with secondary objectives in procurement, such as priority for locally produced goods and priority for micro and small businesses. The main difference between them concerns the mandatory time interval between the publication of the solicitation document and the submission of bids – usually thirty days for open tendering, fifteen days for request for quotations and five days for request for proposals (Brasil 1993, Art. 21, item III, § 2; Mello 2010, 564–65). Noteworthy, a shorter period available for submitting bids might be seen as a way to reduce competition, since bidders have less time to organize and submit their documents in request for quotations and request for proposals. This difference notwithstanding, it is fair to state that, under Brazilian laws, request for quotations and request for proposals are used differently than what I reviewed in Section 3.8. In general, requests for proposals are used for inviting a restricted number of qualified bidders, and request for quotations are used only for the acquisition of off-the-shelf goods. In Brazil, however, these solicitation methods open the procurement procedure to any interested bidder and can be used for procuring any type of items – goods, services or construction.

[20] These values were updated by Decree 9.412, adopted in June 18, 2018 (Brasil 2018f). Nevertheless, I will analyze procurement procedures that took place before 2018, so the new values are not relevant for this study.

In what regards prize competitions, bidders do not submit a price for their work. Instead, they compete for a predetermined prize to be awarded to the best submission (Brasil 1993, Art. 52). Procedures using prize competitions are thus quality-based. The law does not provide a value threshold for the use of prize competitions.

Specialized technical professional services should be procured preferably by means of prize competitions (Brasil 1993, Art. 13 § 1). The Law does not clearly mention architectural services but, given the definition of basic project and execution project provided above, architectural services can be considered specialized technical professional services. This preference provided by the Law nonetheless, open tendering can be used for the procurement of any subject matter of any estimated value, including specialized technical professional services (Brasil 1993, Art. 23 § 4).

6.2.2.5 Awarding process

Articles 43 and 46 of Law 8.666 describe possible awarding processes according to the solicitation method. Prize competitions can only be quality-based, whereas open tendering, request for quotations and request for proposals can be price-based or value-based. Nevertheless, value-based and quality-based procedures are only permitted for procurement of items of a predominantly intellectual nature, including architectural services[21] (Brasil 1993, Art. 46 § 1, item I).

In price-based procedures, procurement proceedings start with the assessment of qualification criteria, followed by a classification of qualified bids by proposed price. The winner will be the qualified bidder proposing the lowest price (Brasil 1993, Art. 43). In quality-based procedures, procurement proceedings start with the assessment of qualification criteria, followed by a classification according to evaluation criteria. The winner will be the qualified bidder with the best scores in their evaluation criteria

[21] In the original: "*Os tipos de licitação "melhor técnica" ou "técnica e preço" serão utilizados exclusivamente para serviços de natureza predominantemente intelectual, em especial na elaboração de projetos, cálculos, fiscalização, supervisão e gerenciamento e de engenharia consultiva em geral e, em particular, para a elaboração de estudos técnicos preliminares e projetos básicos e executivos*".

(Brasil 1993, Art. 46 § 1). Finally, in value-based procedures, procurement proceedings start with the assessment of qualification criteria, followed by a classification according to technical evaluation criteria, and finally an evaluation of proposed prices. The winner will be the qualified bidder proposing the best combination of technical evaluation criteria and price, as established in the solicitation document (Brasil 1993, Art. 46 § 2).

Procurement officials should evaluate submissions in quality-based and value-based procedures by means of a scoring system, which must be made explicit in the solicitation document (Brasil 1993, Art. 46 § 1, I and § 2, I). The Law remains silent regarding the minimum number of evaluation criteria that should be employed or how weights should be attributed to technical criteria and to price.

6.2.2.6 Criteria for selection of bidders

Law 8.666 provides five types of criteria that ought to be employed for the selection of bidders. These criteria are (a) legal, (b) technical, (c) economic, (d) fiscal compliance, and (e) labor rules compliance (Brasil 1993, Art. 27; Bazilli 1998, 199; Pedra 2006). In what concerns technical criteria, the law establishes that: (a) all public procurement procedures **must** include technical *qualification* criteria (Brasil 1993, Art. 27); (b) procurement procedures **may** include technical *evaluation* criteria, but only for services with a "predominantly intellectual nature" or for "specialized technical professional services", which would comprise architectural services (Brasil 1993, Art. 13, Art. 46). Both technical qualification and evaluation criteria must be defined by means of objective parameters (Brasil 1993, Art. 40, VII). Below I elaborate on the contents of the law regarding these criteria.

Technical qualification criteria

Law 8.666 stipulates that technical qualification criteria are mandatory in all solicitation methods, regardless of the subject matter of procurement (Brasil 1993, Art. 27, item II). In procurement of professional services, bidders must comply with two main requirements: they must be members of their professional order and they must demonstrate they have

the capacity to perform the service or deliver the goods being procured (Brasil 1993, Art. 30, I, II). Capacity must be demonstrated by means of statements produced by legal persons acknowledging that the bidder has already executed services for them (Brasil 1993, Art. 30, § 1). Each technical criterion can be applied on two levels: (a) they can be applied on the professional or group of professionals who work for a firm submitting a proposal in a procurement process, in which case it is called a professional capacity (*capacitação técnico-profissional*); or (b) they can be applied on the bidding firm itself, in which case it is called operational capacity (*capacitação técnico-operacional*) (Brasil 1993, Art. 30, § 1, § 10). Therefore, for each item procured, procurement officials may require professional or operational technical qualification criteria, or both.

The proof of technical capacity required must relate to previous experience in the items of the subject matter of procurement that are most relevant and most expensive (Brasil 1993, Art. 30, § 1, II). In this regard, the following example might be of help to understand the topic of relevance. The subject matter of procurement *project of pools* may include items such as *waterproofing plans*, *hydraulic plans*, *architectural plans* and so forth. Therefore, it would be logic to demand experience in designing waterproofing plans if the subject matter concerns pools on the roof of a building, but such a demand would not be reasonable if the subject matter concerned the renovation of a standard music classroom, for which experience in acoustics and soundproofing would be more relevant.

Procurement officials may establish that bidders are expected to prove they have a certain quantity of capacity to be considered qualified. According to TCU, it is illegal to ask for proven capacity of more than 50% of the quantity of service being procured (TCU 2010b, 358). So, for instance, if the subject matter of procurement is the project of a pool with 500 square meters of area, bidders may be asked to prove experience in designing up to 250 square meters of pools. However, it is not mandatory to establish a minimum quantity of capacity that should be required (Brasil 1993, Art. 30, § 1, I).

Technical evaluation criteria

There are two types of evaluation criteria other than price provided by Law 8.666: technical evaluation criteria and additional criteria, which can be used only in prize competitions (Brasil 1993, Art. 52). Technical evaluation criteria should be employed in any solicitation method in which the awarding process is value-based or quality-based. The law further specifies which technical evaluation criteria procurement officials may employ, namely bidders' capacity and experience, proposed methods and organization, technology and resources to be employed, and qualification of the team that will perform the service. These criteria must be described with clarity and objectivity in the solicitation document (Brasil 1993, Art. 46 § 1, item I). It is worth noting that bidders' capacity may be an evaluation criterion as well as a qualification criterion, therefore it may be assessed twice in a procurement procedure – first, to select capable bidders, and then to choose the best bidder, as described in Section 3.9.1.

In prize competitions for architectural services, bidders are required to present a piece of work – usually a preliminary design. Therefore, in prize competitions procurement officials must devise additional evaluation criteria for judging this piece of work. These criteria should be determined case by case, and they may include aesthetic criteria (Brasil 1993, Art. 52). As mentioned in Section 4.1.2, aesthetic criteria are outside the scope of this research.

6.2.2.7 Administrative protests

In what concerns administrative protests, Law 8.666 provides two types. The first is the objection (*impugnação*), which is used to contest the legality of the procedure. It must be submitted before procurement proceedings start (Brasil 1993, Art. 41). The second is the appeal (*recurso*), which is used to contest decisions regarding the results of procurement proceedings, including procurement officials' assessment of technical criteria (Brasil 1993, Art. 109). Objections are judged by the procurement proceedings team, while appeals are judged by a designated authority in the procuring entity, following an analysis of the procurement proceedings team (Brasil 1993, Arts. 41 and 109).

6.2.2.8 Procurement proceedings team

All decisions regarding procurement proceedings in request for proposals, request for quotations and open tendering, including the choice of the best submission, are made by a committee composed of at least three procurement officials; two of them must be employees of the procuring entity. In prize competitions, decisions are made by a special committee composed by renowned professionals in the field of the subject matter of procurement; they may be public servants or otherwise (Brasil 1993, Art. 51).

6.2.3 Law 10.520 – Reverse auctions for public procurement

Application

Law 10.520, adopted in 2002, introduced a new solicitation method, the reverse auction, which can be used by any federal, state or municipal public organization (Brasil 2002). This law was intended to provide a lower-complexity alternative to the solicitation methods put in place by Law 8.666 (Rosilho 2011, 161; Fernandes 2014, 19). Reverse auctions can only be used for "common" goods and services, which are those for which one can objectively measure their performance and quality by means of usual market specifications[22] (Brasil 2002, Art. 1).

Awarding process

The awarding process in reverse auctions are price-based and bidders are post-qualified (Brasil 2002, Art. 4, X). All proceedings take place in *Comprasnet*. Accordingly, procurement proceedings start with initial bids. At this stage, bidders will input their initial offers in the system. They may also submit objections to the solicitation document, which will be analyzed by procurement officials. If there are no valid objections, auctioneers start the auction at the date and time informed in the solicitation document. During this phase, all bidders can see the lowest price offered, which allows them to bid an even lower price.

[22] In the original: "*aqueles cujos padrões de desempenho e qualidade possam ser objetivamente definidos pelo edital, por meio de especificações usuais no mercado*".

The auctioneer is expected to trigger the closure of the auction when they consider that enough bids have been received. The system then starts a random period terminating the auction. This means that it is not the auctioneer who decides when bids will not be accepted anymore; it is the system which decides randomly when the auction is declared finished[23]. Anyone can participate in the initial bid and in the auction because, at this point, procurement officials have not assessed the qualification of bidders yet (MP 2005, 15–17).

Once the provisional winners are chosen, the auctioneer asks them to submit their qualification documents. Procurement officials then take on the analysis of these qualifications. Should they be qualified, the auctioneer opens the system for the submission of protests. If there are protests, procurement officials analyze them and, depending on this analysis, they confirm the definitive winners. If the provisional winners are not considered qualified or if any protest is considered valid, the auctioneer must summon the second-best bidder (Brasil 2002, Art. 4, X, XI, XII, XIII, XVI). Thus, only qualification of winners is assessed by procurement officials. When the auctioneer declares the definitive winners, *Comprasnet* automatically generates an auction report. In this report, all bids and the information exchanged during the auction is registered. Objections, protests and qualification documents are also available in the system (MP 2005, 21–27).

Other rules established by Law 8.666 are applicable in reverse auctions, including provisions regarding technical qualification criteria and administrative protests (Brasil 2002, Art. 9).

Procurement proceedings team

An auctioneer, with the help of a support team, must be designated to conduct procurement proceedings and to make decisions concerning reverse auctions. They must be civil servants working for the procuring entity (Brasil 2002, Art. 3, IV).

[23] *Comprasnet* includes a random period for closing the auction. This random period can last up to thirty minutes following the auctioneer's triggering the closure of bids. This random period was put in place to prevent auctioneers from favouring a bidder by closing the auction at the moment this bidder would win (Barbosa 2017).

6.2.4 Law 12.462 – Differentiated regime for public procurement – RDC

Application

Law 12.462, adopted in 2011, introduced another solicitation method, named "differentiated regime for public procurement" – RDC (*regime diferenciado de contratações*) (Brasil 2011a). The main feature of Law 12.462 is that it introduced the design-build approach, discussed in Section 3.4, in Brazilian public procurement (*contratação integrada*, as mentioned in the Law). In this approach, the basic project, the execution project and the construction itself may be procured in the same procedure (Brasil 2011a, Art. 8, V, Art. 9). This is different from the procedures of Law 8.666, which determines that procurement for construction may only take place if the corresponding basic project is approved, as reviewed in Section 6.2.2.3.

By the time of its adoption, Law 12.462 was intended to provide a simpler legal framework for the construction of buildings and infrastructure necessary for the Fifa World Cup in 2014 and for the Olympic Games in 2016, given that reverse auctions cannot be used for construction (Valencia 2016, 65). The Law later incorporated other areas where RDC can be applied, namely actions in the Program for Economic Acceleration – PAC (*Programa de Aceleração do Crescimento*), infrastructure for health services, construction of prisons, actions for public security, infrastructure for urban transportation, construction of buildings for the purpose of renting them for the public administration, and actions in public programs for science and education. For concision, I will use the term *RDC actions* for actions concerning these areas. RDC can thus be used by procuring entities across all levels of government for the acquisition of any type of items, including architectural services, provided the subject matter of procurement is in the scope of RDC actions (Brasil 2011a, Art. 1).

Awarding process

Law 12.462 determines that RDC procedures may be price-based, quality-based or value-based (Brasil 2011a, Art. 18). Nevertheless, the assessment of qualification is similar to that

of Law 10.520. That means qualification will be judged after the best submission is selected (Brasil 2011a, Art. 12), thus reducing the amount of analysis by procurement officials when compared with procedures established by Law 8.666.

In RDC, value-based procedures can only be employed for services of a predominantly intellectual nature (Brasil 2011a, Art. 20), yet the Law further specifies that quality-based selection can be employed specifically for procurement of architectural services (Brasil 2011a, Art. 21). In practice, RDC with price-based or value-based selection corresponds to a post-qualification open tendering (Fiuza and Medeiros 2014, 39), whilst RDC with quality-based selection corresponds to a post-qualification prize competition. Rules regarding qualification and evaluation criteria (Brasil 2011a, Art. 14) and regarding administrative protests (Brasil 2011a, Art. 27, Art. 45) are similar to those established by Law 8.666.

Procurement proceedings team

Decisions concerning procurement proceedings under Law 12.462 are made by a committee where the majority of its members must be employees of the procuring entity (Brasil 2011a, Art. 34).

6.2.5 Other regulations on procurement

6.2.5.1 Decree 7.892 – Formalized price system – SRP

Decree 7.892, adopted in 2013, implements the formalized price system – SRP (*sistema de registro de preços*), which was provided by Law 8.666 (Art. 15). SRP is not a solicitation method, but an additional tool allowing public organizations to procure goods whenever the quantity to be procured is not known beforehand. In such cases, bidders offer a price per unit of measure of the item procured (Brasil 2013, Art. 9, I). The procuring entity and other public organizations may then buy the needed quantity of the item from the winning bidder, up to a certain limit established in the corresponding solicitation document (Brasil 2013, Art. 22).

Procurement officials may employ SRP in four circumstances: (a) the item will be frequently procured; (b) it is convenient to purchase the item in installments; (c) more than one public organization need to procure the same item; and (d) it is not possible to determine beforehand the exact amount of the item that will be procured (Brasil 2013, Art. 3). This system can only be employed when the solicitation method is open tendering, as established by Law 8.666; reverse auctions, as established by Law 10.520; or RDC, as established by Law 12.462 (Brasil 2011a, Art. 29, 2013, Art. 7).

An example might be helpful to illustrate how SRP is applied. A public organization may procure pencils by means of a reverse auction using SRP, without indicating the exact quantity of pencils it would need. Bidders offer a price per unit of the specified pencil. The winner will be the qualified bidder offering the lowest price. The procuring entity may then buy pencils from the winner. Other public organizations may also buy the same type of pencils from the winner, without the need of starting procurement procedures anew.

According to Law 8.666, SRP should not be employed for the procurement of services, including architectural services (Brasil 1993, Art. 7, § 4).

6.2.5.2 Decree 2.271

As seen above, Law 8.666 provided different procedures for procurement of construction, goods and services. Procurement of services for federal organizations was regulated by Decree 2.271, adopted in 1997, and by Normative Instruction 5 (*Instruçao Normativa* 5), adopted in 2017 (Brasil 1997; MP 2017b). I will refer to the latter simply as IN-5.

Decree 2.271 established that any service that is complementary to the main activity of a federal public organization may be provided by third parties by means of public procurement (Brasil 1997, Art. 1)[24].

[24] Decree 2.271 was replaced by Decree 9.507 in September 21, 2018 (Brasil 2018g, Art. 17). However, Decree 2.271 was the legal instrument in force during the period analyzed in this study.

IN-5 provides detailed rules for the procurement of services by federal public organizations, as established by Decree 2.271[25].

Given its importance for this research[26], I will discuss in detail the features of IN-5 that I deem most relevant for this study.

6.2.6 IN-5 – Normative Instruction 5

IN-5 determines that procurement officials must produce two documents to start procurement proceedings. The first are the reference terms (*termo de referência*)[27]. The reference terms inform specifications of services being procured, awarding process, technical qualification and evaluation criteria, and estimated cost of the service (MP 2017b, Art. 30). The second is the solicitation document (*edital*), which is the most important document in a procurement procedure (Justen Filho 2009, 515). It must indicate the subject matter of procurement (the services being procured), solicitation method, awarding process, qualification and evaluation criteria, as well as the terms of the contract that would be awarded as a result of procurement proceedings (MP 2017b, Art. 34, Appendix VII-A). The solicitation document must be based on information provided in the reference terms (MP 2017b Appendix VII-A item 2.1).

IN-5 establishes that there should be two teams of procurement officials engaged in a procurement process. The first is the planning team (*equipe de planejamento da contratação*), composed of procurement officials who are expected to hold knowledge on the technical aspects of the subject matter. The planning team is responsible for devising the reference terms (MP 2017b, Art. 21). Therefore, it is this group who determines

[25] IN-5 replaced Normative Instruction 2/2008 in 2017. However, in what concerns the subject of this research, their contents are basically the same (Brasil 2017b).
[26] According to TCU, IN-5 should be followed by all public organizations, regardless of their level (federal, state or municipal) or their branch (executive, legislative, judiciary) (TCU 2009, 14; Correa 2010; MPOG 2012).
[27] *Basic project* and *reference terms* are often used as though they were interchangeable appellations. Nevertheless, *basic project* is a detailed document, including drawings and specifications, necessary for procurement of construction, as seen in the section dedicated to Law 8.666, whereas *reference term* is a simpler document, adequate for the procurement of goods and services (Camarao and Daniel 2016). Thus, the document used for procuring architectural services should be the reference terms.

awarding process and technical criteria, and who judges bidders' compliance with technical criteria. The second is the procurement proceedings team, whose composition depends on the solicitation method employed, as reviewed in Sections 6.2.2.8, 6.2.3 and 6.2.4. It is this team who is responsible for producing the solicitation document and conducting procurement proceedings, including judging compliance with criteria other than technical (Tolosa Filho 2011, 561; MP 2017b, Art. 33).

Each subject matter of procurement may include different services, in which case each service should be procured as a different item. Each item must be classified using a classification table available in *Comprasnet*, called CATSER (MP 2017b Appendix V item 2.1.b). Items can be bidden separately or in a group of items, but different services should not be procured in the same item (MP 2017b Appendix III item 3.8). For instance, a procuring entity may procure the subject matter *design of a new office building*. This subject matter may comprise the following services: *architectural design*, *structural design, facilities design*, and *interior design*. In this case, we would be dealing with one subject matter, corresponding to one procurement procedure and one solicitation document; this subject matter comprises four services being procured, which correspond to four items. These four items may be grouped, to assure the same bidder will provide all services; or they may be offered separately, in which case four different bidders may provide the services. In the latter case, four contracts would be awarded, whilst in the former case, only one contract would be awarded. However, in no case the four services could be bundled as one item, given that it would not be possible to correctly classify them.

IN-5 has three other features that are important for this study. First, it determines that services should be procured preferably by means of reverse auctions (price-based selection of bidders), whereas value-based procedures should be exceptional. Procuring entities that intend to procure services by means of value-based procedures must justify the need to do so. Value-based procedures are acceptable when the service is of intellectual nature (MP 2017b Appendix VII-A items 8.1, 8.4, 8.6). Therefore, it can be contended that this regulation grants discretion to the planning team to judge whether a service can be

considered a common service, such as street cleaning, or a service of intellectual nature, such as legal consulting or architectural design. IN-5 does not mention prize competitions.

Second, in its Art. 30, IN-5 determines that procurement officials must unveil the estimated price for the service and how they calculated this estimated price – although it is not mandatory to indicate the estimated price in RDC procedures (Brasil 2011a, Art. 6). Bidders that propose a price higher than the estimated price may have their bids rejected (MP 2017b Appendix V item 2.8.d).

IN-5 also disposes that both technical qualification criteria and technical evaluation criteria must be relevant and compatible with the service being procured ("*atividade pertinente e compatível [...] com o objeto de que trata o processo licitatório*") (MP 2017b, Appendix VII-A items 10.3 and 10.4). Besides, the same technical criterion may be used as qualification as well as evaluation criterion (MP 2017b Appendix V items 2.8.b and 2.8.c). However, documents used for complying with qualification criteria may not be used for assessing evaluation criteria (MP 2017b Appendix VII-A item 10.4.b). Finally, IN-5 establishes that technical qualification criteria must include a minimum quantity of capacity required (MP 2017b Appendix VII-A item 10.4.b).

6.2.7 Comments on procurement regulations

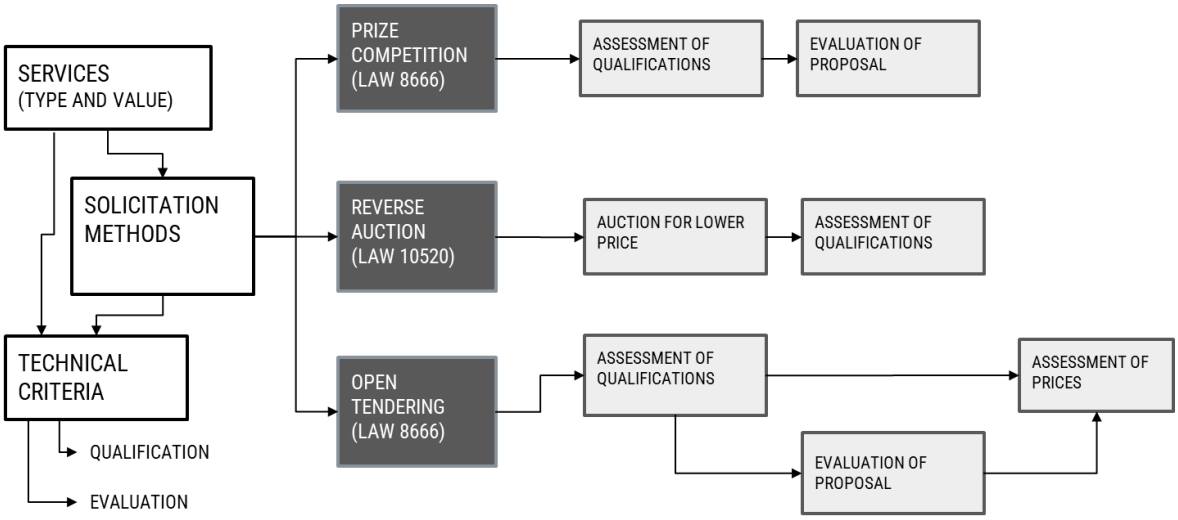


Figure 14 - Summary of the procurement process for services

I summarize the process for procurement of services under Brazilian regulation in Figure 14. The type and the estimated value of services procured should determine solicitation methods available. In turn, solicitation methods and services should determine the range of technical criteria which procurement officials could employ. In what concerns solicitation methods, the three principal types are reverse auctions, which are post-qualification procedures (assessment of qualification is done after assessment of proposals), as well as prize competitions and open tendering, which are pre-qualification procedures (assessment of qualification is done before assessment of proposals). In the figure above RDC methods (Law 12.462) are not shown, for these can take the shape of any of the three methods mentioned.

Some authors argue that the coexistence of Laws 8.666 and 10.520 creates a contradictory and confusing regulatory framework, since these laws embrace opposite directions: a maximalist approach in the case of the former and a minimalist approach in the case of the latter (Rosilho 2011, 203; Fernandes 2014, 23; 2016, 427). Law 8.666 is considered too detailed, rigidly framing procurement procedures in order to control corruption (World Bank 2004, x; Rosilho 2011, 146; Fernandes 2016, 425). Law 10.520 introduced post-

qualification procedures, which some authors consider a huge improvement over Law 8.666 because pre-qualification in Brazil is a lengthy procedure, very often subjected to administrative and legal protests (Szerman 2012; Costa Jr 2016, 59; Fernandes 2016, 425). However, Law 10.520 provides little flexibility for procurement of professional services, because the only evaluation criterion in reverse auctions is price. In a report focusing on the Brazilian procurement system, the World Bank noted the issue of different regulatory approaches, underlining that they may produce conflicting jurisprudences (World Bank 2004, 84).

Law 12.462 appears as a middle ground between Laws 8.666 and 10.520, although the introduction of the design-build approach has been criticized by many, especially architects (Fiuza and Medeiros 2014, 38; IAB 2015; 2016). Law 12.462 has also been criticized for granting too much discretion to procurement officials, since it lets them apply RDC for procuring any item regarded as part of an RDC action (Valencia 2016, 66).

Noteworthy, some authors see post-qualification procedures as appropriate for the Brazilian context, given that they have been tested extensively by means of reverse auctions (Fiuza and Medeiros 2014, 25). However, other scholars mention that, in different contexts, post-qualification procedures often introduce a bias toward the lowest bid, therefore procurement officials would be more likely to ignore other criteria in this situation (Sporrong 2011, 63). This discussion does not regard criteria themselves, but rather the moment in the process when criteria are assessed. For this reason, I will not elaborate on the matter.

In what concerns procurement of architectural services in particular, a summary of the main features of solicitation methods available under Brazilian laws, as reviewed in this chapter, is shown in Table 2.

One can argue from this summary that there is a large range of possible solicitation methods from which procurement officials could choose from. They would vary from the simple, straightforward reverse auction to the more complex and subjective prize competition. The choice of solicitation method would depend on how procurement officials

classify the subject matter of procurement – in this case, how they classify architectural services. Technical qualification criteria are mandatory in all procurement procedures, whereas technical evaluation criteria may be employed only in value-based and quality-based procedures.

Table 2 - Features of solicitation methods for architectural services

Solicitation method →	**Reverse auction (Law 10.520)**	**RDC (Law 12.462)**	**Open tendering, request for proposals and request for quotations (Law 8.666)**	**Prize competition (Law 8.666)**
Awarding process	Price-based	Price-based, quality-based or value-based	Price-based or value-based	Quality-based
Qualification	Post-qualification	Post-qualification	Pre-qualification	Pre-qualification
Technical criteria	Qualification mandatory	Qualification mandatory, evaluation depends on awarding process	Qualification mandatory, evaluation depends on awarding process	Qualification and evaluation mandatory

In what concerns solicitation methods, IN-5 is in contradiction with Law 8.666. The former provides that reverse auctions should be the preferred method for procurement of all services, thus establishing the preference of a price-based selection. Law 8.666 provides that prize competition should be the preferred method for specialized technical professional services, thus establishing the preference of a quality-based selection for such services. The issue seems to revolve around how procurement officials should classify services, either as common services, or as services of a predominantly intellectual nature, or still as specialized technical professional services. Depending on this classification, technical evaluation criteria should be used or otherwise. Some authors understand that the legislation provides the preference for prize competitions for architectural services in general (Cretella Jr 1996, 188; Fernandes 2016, 133), whereas renowned jurist Marçal

Justen Filho contends that procurement officials have discretion to determine whether a service should be the subject of a prize competition (2009, 164). Adding some confusion to this already difficult matter, the Office of the Attorney General states that architectural services must be submitted to IN-5, thus establishing reverse auctions as the preferred method (AGU 2018), whereas the Federal Audit Office encourages procurement officials to employ prize competitions when procuring architectural services (TCU 2019b, 27).

It is also argued that the use of reverse auctions for procurement of professional services is inadequate, even if the legal framework provides discretion on the matter. As Szerman noted, in a typical reverse auction "bidders are retailers or wholesalers who have good knowledge of their private costs before entering the auction. Bidders are unlikely to spend large amounts of time reading lots of descriptions, as these are short due to the standardisation of products being traded" (2012, 71). Professional services, including architectural services, can hardly be standardised, and the solicitation documents for procuring such services are usually long and detailed. Therefore, choosing the winning bid by means of a price-based procedure is unlikely to provide the best professional to provide the service, for bidders will not have enough time to calculate their costs. Furthermore, the random period for closure of bids in reverse auctions may create a gambling environment. Bidders will engage in a race for the lowest price, threatening the feasibility of the service (Guarnieri and Gomes 2019, 2).

6.2.8 Proposed bill for public procurement in Brazil

Since a new procurement bill is under study in Brazil, and given the subject of this research, it is worth checking how procurement for architectural services is addressed by this bill.

6.2.8.1 Proposed bill

A bill to replace Laws 8.666, 10.520 and 12.462 is under study since 2013 (Senado Federal 2017; 2020). At its present state, the proposed bill provides open tendering, reverse auction

and prize competition as solicitation methods, using post-qualification procedures (Senado Federal 2017, Art. 25).

Like Law 8.666, the bill establishes that awarding procedures can be price-based, quality-based or value-based (Senado Federal 2017, Arts. 31, 32 and 33). Like Law 12.462, it would be possible to employ a design-build (DB) approach but, in this case, the procuring entity would need to provide a preliminary design (Senado Federal 2017, Art. 41). Like Law 10.520, procurement officials should preferably employ reverse auctions, but reverse auctions cannot be used when the item to be procured is a specialized technical service of a predominantly intellectual nature ("*serviços técnicos especializados de natureza predominantemente intellectual"*) (Senado Federal 2017, Art. 26). Basic projects[28] and execution projects are listed amongst specialized technical services of a predominantly intellectual nature ("*estudos técnicos, planejamentos, projetos completos e projetos executivos*") (Senado Federal 2017, Art. 5, XVI a). Therefore, it will not be possible to procure architectural services by means of reverse auctions.

The bill determines that technical qualification criteria are mandatory in any procurement procedure (Senado Federal 2017, Art. 55). However, it is less clear regarding evaluation criteria. Specialized technical services of a predominantly intellectual nature could be procured by means of price-based or value-based selection (Senado Federal 2017, Arts. 31 and 33), while architectural services could also be procured by means of quality-based selection (Senado Federal 2017, Art. 32). Nevertheless, the bill does not determine any obligation or preference for the use of price-based, value-based or quality-based procedures and, consequently, for the use of technical evaluation criteria. We can thus conclude that, in its current form, the proposed bill has the merit of making clear that reverse auctions could not be employed for procurement of architectural services. However, it falls short of providing a clear orientation on the use of technical evaluation criteria, putting this decision under procurement officials' discretionary powers.

[28] The bill replaces the term "basic project" by the term "complete project", but its meaning and function remain the same.

6.2.8.2 Comments on the proposed bill

In what regards procurement of architectural services, some aspects of the proposed bill must be highlighted. Brazilian architects have argued that the introduction of the DB approach for all types of construction will likely lead to increased corruption, as seen in contracts related to the construction of stadiums for the FIFA World Cup – these contracts were not submitted to Law 8.666, but to Law 12.462 (Moreira 2017; Magalhaes 2017). The Brazilian Council of Architecture and Urban Planning (CAU-BR – *Conselho de Arquitetura e Urbanismo do Brasil*) has even set up a webpage for denouncing such cases (CAU-BR 2017). Brazilian architects seem to prefer the traditional DBB approach for the procurement of construction, favouring prize competitions as a solicitation method for architectural services. The Brazilian Institute of Architects (IAB – *Instituto de arquitetos do Brasil*), which is the most traditional association of architects in the country, has repeatedly made public their support for prize competitions (IAB 2013a, 8; Baeta 2014; IAB 2015, 2; 2016, 2). However, in its present form, the proposed bill grants, to procurement officials, discretion to decide between open tendering and prize competitions for the procurement of architectural services, without providing a preference for either.

Finally, some authors contend that the simplification of procurement proceedings provided by the proposed bill will not be a panacea for Brazilian public procurement because one important source of problems is the lack of proper planning, which should be carried out by the planning team during the pre-contractual phase of procurement (Sampaio and Biasi 2011, 523; Fiuza and Medeiros 2014, 24; Fernandes 2016, 130). This argument reinforces the notion that the regulatory framework alone is not sufficient for a well-functioning procurement system. For improving the Brazilian system, the procurement environment should also be revamped.

6.2.9 Regulations on architectural services

The profession of architect is framed in Brazil by Law 12.378 (Brasil 2010, Art. 1). This law determined the creation of a professional order for architects[29], the Brazilian Council of Architecture and Urban Planning – CAU-BR, which is responsible for overseeing and representing the profession. CAU-BR can adopt rules for regulating Law 12.378, and it can impose disciplinary measures on architects, including banning a professional from the order (Brasil 2010, Art. 17, Art. 19). To work as an architect, a professional must be a member of CAU-BR, and to become a member, one must possess a valid diploma in architecture (Brasil 2010, Art. 5, Art. 6).

6.2.9.1 Architectural services

According to Law 12.378, an architect may perform services in eleven fields, namely: (a) architecture and urban planning; (b) interior architecture; (c) landscape architecture; (d) cultural and artistic heritage; (e) urban and regional planning; (f) topographic survey; (g) technology and resistance of materials; (h) structural systems; (i) facilities and equipment related to architecture and urban planning; (j) environmental comfort; and (k) environmental design and sustainable development (Brasil 2010, Art. 2). The services themselves range from data collection to quality control, including spatial design.

CAU-BR adopted many resolutions regulating Law 12.378. The most important for this research are Resolution 21, adopted in 2012, and Resolution 51, adopted in 2013. Resolution 21 provides a detailed list of 241 assignments that can be performed by architects (CAU-BR 2012, Art. 3). Most of these assignments straddle architecture and other fields, so they may be performed by architects as well as by other professionals, such as surveyors, but most commonly by engineers. For instance, structural design of a building could be performed by a civil engineer or by an architect, within certain limits.

[29] Before the creation of CAU-BR, Brazilian architects shared the same professional order of engineers and agronomists.

6.2.9.2 Services exclusive for architects

Resolution 51 determines which services, amongst those 241 assignments, can only be performed by architects. These exclusive services are spatial design and related services in the fields of architecture, urban planning, interior architecture, landscape architecture, cultural and artistic heritage, urban and regional planning, and environmental comfort (CAU-BR 2013, Art. 2). Related services can be, for instance, teaching architecture and urban planning (Art. 2 items I-f and I-o) or producing technical reports regarding architecture and urban planning projects (Art. 2 item I-m).

In practice, architects and engineers are presumed to work in a complementary fashion in most services related to construction, and especially in design services. However, given my professional background and time constraints of this research, it would not be feasible to discuss criteria for both engineering and architectural services. Hence, I will limit the scope of this research to those services that are exclusive for architects, as established by Resolution 51 mentioned above.

6.2.10 Transparency regulations

Transparency is a fundamental feature of public administration and especially of public procurement, since it strengthens integrity and accountability of public agents (Bernier 2012; Ferrarese 2015, 27). There are two main sources of regulations concerning public procurement transparency in Brazil. The first source is Law 8.666, which, as mentioned above, deals with public procurement. The second is Law 12.527, which deals with transparency in all government activities. I will review contents from each of these sources in the following sections.

6.2.10.1 Transparency regulations on public procurement

Law 8.666 establishes that transparency is one of the fundamental principles of Brazilian public procurement (Brasil 1993, Art. 3). It disposes that all procurement proceedings must

be published in the official press of the corresponding level of government – federal, state or municipal (Brasil 1993, Art. 21).

For regulating transparency in public procurement at the federal level, the government adopted, in 1994, Decree 1.094, which was later implemented by Normative Instruction 2/2011. These regulations establish that information on federal organizations' public procurement should be available by means of *Comprasnet;* this system is open to the general public via the internet and it holds information on procurement procedures since 2001 (Brasil 1994; MPOG 2011a; Szerman 2012, 2). Everything the federal government buys ought to be announced by means of *Comprasnet* (except procurement involving classified information), and procurement proceedings regarding reverse auctions and RDC should also be carried out by this system (Brasil 2018d). Federal procuring entities must therefore publish their procedures in the official press as well as in *Comprasnet*, whereas state and municipal procuring entities are not obliged to use *Comprasnet*, but they are encouraged to do so (Szerman 2012, 9; Brasil 2018d). *Comprasnet* is thus a system for *disclosing information* about all procurement in the federal sphere as well as for *conducting some procurement proceedings*, namely reverse auctions and RDC.

When a procuring entity publishes a procedure in *Comprasnet*, it must include in the system the solicitation document and corresponding reference terms, as well as a list of items procured. This list is generated automatically by *Comprasnet* based on information provided by procurement officials, comprising the classification according to the CATSER table and the estimated value for every item (MPOG 2011a, Art. 4; 2011b, 38). The solicitation document, the reference terms and the list of items procured are thus mandatory documents for publishing procurement procedures in *Comprasnet. Comprasnet* can be accessed by the address https://www.gov.br/compras/pt-br/.

6.2.10.2 General regulations on transparency

Law 12.527, adopted in 2011, is known as Access to Information Law (*Lei de acesso à informação*). It deals with transparency in all government activities. Law 12.527 determines that all information on public organizations' procurement and contracts must be made

public (Brasil 2011b, Art. 8, IV). At the federal level, this Law was implemented by Decree 7.724, adopted in 2012, which establishes that federal organizations must keep, within their internet sites, pages containing information regarding their procurement procedures (Brasil 2012, Art. 7).

For the executive branch of government, another regulation, Interministerial Ordinance 140/2006, determined the creation of Public Transparency pages (*páginas de transparência pública*), which are also intended to hold information regarding procurement procedures of federal organizations (CGU and MPOG 2006, Art. 7). Each federal organization is expected to keep a Public Transparency page, which can be used to compile information required by Decree 7.724. These pages are accessed by the address http://www.transparencia.gov.br/.

It must be noted that there are many other sources of information on procurement that do not regard the federal government. State governments and municipalities may have their own internet sites for procurement[30]. However, an empirical study published in 2018 showed that state and municipal governments comply less with transparency laws than the federal government (Michener, Contreras, and Niskier 2018, 614). Besides, Banco do Brasil, a bank controlled by the federal government, has its own procurement system, called *Licitações-e* (Banco do Brasil 2018). Many municipal and state organizations, as well as private organizations, use *Licitações-e* for their procurement needs. Like other enterprises partly owned by the Brazilian government, such as Petrobras, Banco do Brasil is not required to use *Comprasnet*, for they are not considered part of the federal administration (Brasil 1994, Art. 1, § 1, 1997, Art. 9; Calasans Jr 2011, 527; Fiuza and Medeiros 2014, 92).

[30] Some examples are *http://www.transparencia.sp.gov.br/licita.html* for the state of São Paulo, or *http://www.sgl.to.gov.br/* for the state of Tocantins.

6.2.10.3 Sources of information

In accordance with the regulations discussed above, one can expect that information on federal public procurement could be found in at least two internet sources. The first is *Comprasnet*; the second would be either the Public Transparency pages or the internet page of each procuring entity. The latter would be more useful when one is focused in procurement of a specific organization, whereas *Comprasnet* would be a better source for information on procurement of the federal government as a whole. We should be able to download solicitation documents, their respective reference terms and lists of items for all procedures of procuring entities using *Comprasnet*. However, only procedures using reverse auctions and RDC are *carried out* by means of *Comprasnet*[31]. Hence it may be expected that some documents used in procedures which employ other solicitation methods could not be available in *Comprasnet*, but they should be available in Public Transparency pages of procuring entities.

6.3 Considerations on the Brazilian procurement system

From the review thereupon, we realize the procurement environment in Brazil can hardly be considered a positive one for a well-functioning system. Enforcement is deficient, the system is very fragmented, and personnel often lack skills to perform their tasks.

In what concerns the regulatory framework, it can be said that it is quite a complex one. There are laws providing different approaches in procurement, and their coexistence may lead to conflicting choices and conflicting jurisprudences. On the other hand, Brazilian laws provide a high level of transparency of procurement procedures, at least regarding procedures conducted by federal organizations, for whom the use of *Comprasnet* is mandatory.

[31] In 2017, 96% of all procurement procedures published in *Comprasnet* concerned reverse auctions (Source: http://paineldecompras.planejamento.gov.br/).

Drawing on Brazilian regulations, two features of procurement must be underlined, for they are important for the comprehension of this study. First, a subject matter of procurement may include many different services. Each service should be procured as a different item in the same procedure. But different services should not be procured in the same item. Second, a technical criterion comprises two concepts: (a) the capacities required, which is the set of experiences and available skills deemed necessary for the production of the service being procured; and (b) the quantity of capacity, which is a figure expressing the minimum quantity required for considering the bidders' capacity compliant. For instance, in the criterion "experience with designing at least 500 square meters of pools", the capacity would be *designing pools*, whereas the quantity of capacity would be *500 square meters*. Each item procured must require one or more technical criteria.

The analysis of the regulatory framework in relation to procurement of architectural services unveiled that there is some confusion on which solicitation method and corresponding technical criteria should be used in public procurement for these services. Procurement officials may classify architectural services as specialized technical professional services, which would put them under the field of Laws 8.666 and 12.462; or as common services, which would put them under the field of Law 10.520. In the former case, both technical qualification and technical evaluation criteria should be employed, whilst in the latter case, only technical qualification criteria are necessary.

It could be contended that no architectural service can be objectively measured by means of usual market specifications, as demanded by Law 10.520. However, architectural services may present very different levels of complexity. Designing a parking lot and designing a public transit system are very different architectural services, and they probably should not be procured by the same solicitation method and technical criteria. The Brazilian regulatory framework provides room for procurement officials' discretion regarding this issue. Current rules grant the planning team (mentioned on Section 6.2.5.2) discretion to devise criteria and propose solicitation methods, provided these are relevant to the items procured. There is, however, a contradiction between IN-5 and Law 8.666 (discussed in Section 6.2.7). A contradiction in the regulatory framework increases

the chances of outcomes that are not expected by policy-makers, especially in a context of high levels of discretion (Hirata 2016, 33). As late mathematician Alan Turing has noted, “the harm of a system that contains a contradiction comes in when there’s an application of the system” (in Monk 1990, 421). In this sense, this research can reveal problems related to these contradictory rules.

To complement this picture, I analyzed the new Brazilian bill on public procurement. This bill upholds procurement officials’ discretion on solicitation methods and technical criteria for procuring architectural services. Nevertheless, it is impossible to forecast its adoption.

Discretion provided by current regulations and by the proposed bill may be seen as a positive feature, for it would be impractical to impose the same criteria and procedures for procuring all types of architectural services. However, the problems in procurement for construction suggest that this discretion has not been used wisely, as mentioned in Section 2.1. For this reason, it seems that an examination of the matter by means of street-level bureaucracy theory and the concept of discretion is even more appropriate.

7 Intended policy on procurement of architectural services

In order to compare actual policy with intended policy, as suggested by street-level bureaucracy theory, one must first analyse intended policy. Intended policy may be seen as the sum of bounded powers and discretionary powers, provided by the regulatory framework (Applbaum 1999, 208). As discussed in the previous chapter, the Brazilian regulatory framework main focus is on preventing corruption and on treating bidders equally, in detriment to providing the optimal value for procuring entities. In this chapter, I will highlight procurement officials' bounded powers and the extent of their administrative discretion in what concerns technical criteria and solicitation methods for procurement of architectural services, based on the review in Section 6.2.

One preliminary question in this analysis is: how to identify administrative discretion? Brazilian Jurist Celso Bandeira de Mello (2010, 434) argues that a law creates discretionary powers in four circumstances. First, it may not describe the situation which is supposed to be framed. Second, the situation may be described by vague or imprecise concepts, leaving room for reflective judgements. Third, it may prescribe the freedom to decide, as long as the decision complies with the legal finality. Forth, it may prescribe that decisions should consider a generic or imprecise objective, for instance, the public interest. Drawing from this account, I will deal below with intended policy on procurement of architectural services.

7.1 Solicitation methods

According to the regulatory framework, the choice of solicitation methods depends on how procurement officials classify the service procured and on the estimated value of the procedure. Concerning the former, procurement officials must judge whether the service procured is (a) a common service, (b) a service of a predominantly intellectual nature, (c) a specialized technical professional service, or still (d) a service in the scope of an RDC action. For convenience, I review the contents of the regulatory framework

concerning these concepts on Table 3. I will discuss them below, and I will also consider the issue of estimated value thresholds for each solicitation method.

Table 3 - Review of concepts from the regulatory framework

Concept and source	Contents of the law	Original contents
Common services (Law 10.520, Art. 1)	services for which one can objectively determine their performance and quality by means of usual market specifications	"*aqueles cujos padrões de desempenho e qualidade possam ser objetivamente definidos pelo edital, por meio de especificações usuais no mercado*"
Services of predominantly intellectual nature (Law 8.666 Art. 46)	no definition, but the Law provides a list of activities which are considered of a predominantly intellectual nature, including the production of basic projects and execution projects	"*serviços de natureza predominantemente intelectual, em especial na elaboração de projetos, cálculos, fiscalização, supervisão e gerenciamento e de engenharia consultiva em geral e, em particular, para a elaboração de estudos técnicos preliminares e projetos básicos e executivos*"
Specialized technical professional services (Law 8.666 Art. 13)	no definition, but the Law provides a list of activities which are considered specialized technical professional services, including those related to technical studies, planning, basic and execution projects, technical consulting, and supervision of construction works	"*trabalhos relativos a: estudos técnicos, planejamentos e projetos básicos ou executivos; (…) pareceres, perícias e avaliações em geral; (…) assessorias ou consultorias técnicas e auditorias financeiras ou tributárias; (…) fiscalização, supervisão ou gerenciamento de obras ou serviços*"
RDC actions (Law 12.462 Art. 1)	services related to Fifa World Cup, Olympic Games, Program for Economic Acceleration, infrastructure for health services, construction of prisons, actions for public security, infrastructure for urban transportation, construction of buildings for the purpose of renting them for the public administration, and actions in public programs for science and education	"*Jogos Olímpicos e Paraolímpicos, (...) Copa das Confederações (...) e Copa do Mundo (...), ações integrantes do Programa de Aceleração do Crescimento, (...) Sistema Único de Saúde, (...) estabelecimentos penais e unidades de atendimento socioeducativo, (...) ações no âmbito da Segurança Pública, (...), melhorias na mobilidade urbana ou ampliação de infraestrutura logística (...) contratos de locação de bens móveis e imóveis, nos quais o locador realiza prévia aquisição, construção ou reforma substancial do bem especificado pela administração, (...) das ações em órgãos e entidades dedicados à ciência, à tecnologia e à inovação*"

7.1.1 Common service

According to Law 10.520, common services are "services for which one can objectively determine their performance and quality by means of usual market specifications". If the service is considered a common service, it must be framed by Law 10.520. In this case, it should be procured by a reverse auction. The notion of common service embraces vague and imprecise concepts, namely performance objectively determined and "usual market specifications".

Some authors argue that architectural services of low complexity are common engineering services, and as such they should be procured by reverse auctions (Camarao and Daniel 2016). This understanding is based on a decision by TCU stating that common engineering services can be procured by reverse auctions ("*O uso do pregão nas contratações de serviços comuns de engenharia encontra amparo na Lei nº 10.520/2002*") (TCU 2010c).

This understanding that architectural services can be considered common engineering services is questionable. On the one hand, IBRAOP (*Instituto Brasileiro de Auditoria de Obras Públicas*), an organization consisting of architects and engineers working in the field of public procurement, argues that architecture and engineering design services are amongst engineering services (IBRAOP 2004, 4). On the other hand, the Office of the Attorney General – AGU (*Advocacia-Geral da União*), which is the entity responsible for giving legal advice to the federal government (AGU 2015), states that engineering services in the context of public procurement are activities related to the maintenance of infrastructure and buildings, thus excluding architectural and engineering design services from this category (Silva Filho 2014, 11). Furthermore, the Superior Court of Justice – STJ (*Superior Tribunal de Justiça*), which is responsible for the uniformity of interpretation of federal laws (STJ 2018), confirmed, in April 2017, the decision of a lower Court, which judged that architectural and engineering services are specialized technical professional services, and as such should not be procured by means of reverse auctions (STJ 2017). However, the subject matter of procurement in this latter case was not a specific project. Instead, it concerned contracting a firm of architects and engineers for the execution of several tasks in their fields, including designing architectural projects[32] (STJ 2017, 2).

From the analysis above, we can argue that there is a distinction between design services in architecture and engineering – services which will produce a project – from other

[32] In the original: "*O objeto da licitação em apreço refere-se à contratação de empresa para prestação de serviços de engenharia e arquitetura para a execução de serviços técnicos, compreendendo a elaboração de análises, assessoramento, coordenação, especificações, estudos de viabilidade técnica, orçamentos, fiscalizações de obras e serviços de laudos, levantamentos, projetos, pareceres, vistorias e outros de mesma natureza, necessários à Administração, conservação e manutenção dos imóveis*".

engineering services such as maintenance of infrastructure and buildings. The concept of common engineering services in public procurement would be applicable only to the latter type of services. Under this understanding, as a general rule architectural services should not be considered common services.

7.1.2 Service of predominantly intellectual nature

If the service is not a common service, it is bound to be a service of a predominantly intellectual nature. In this case, it can be procured by means of solicitation methods using value-based or quality-based awarding process. Nevertheless, the law does not prohibit the use of price-based awarding process.

The concept of predominantly intellectual nature can be considered vague, allowing procurement officials the latitude to frame a service under it. As shown in Table 3, the law does not provide a definition of service of a predominantly intellectual nature. Instead, legislators favoured giving examples of the concept, including the design of basic project and execution project in the list of services of a predominantly intellectual nature.

TCU has stated that services of intellectual nature are services for which art and human rationality are essential, and as such they would exclude services that can be performed mechanically or according to pre-established rules[33] (TCU 2010b, 114). Still, procurement officials have discretion to judge whether a service requires art or human rationality, which are inherently vague concepts, and whether such requirements are essential.

7.1.3 Specialized technical professional service

When the service is not considered a common service, procurement officials must also judge whether it is a specialized technical professional service.

[33] In the original: "*Entendo como serviços de natureza intelectual aqueles em que a arte e a racionalidade humana sejam essenciais para a sua satisfatória execução. Não se trata, pois, de tarefas que possam ser executadas mecanicamente ou segundo protocolos, métodos e técnicas pré-estabelecidos e conhecidos*."

As shown in Table 3, the law does not provide a definition of specialized technical professional service. Like the concept of service of a predominantly intellectual nature, legislators favoured giving examples of the concept, including the design of basic project and execution project in the list of specialized technical professional services. This could lead to the understanding that these services must be automatically categorized as such, leaving no room for discretion. However, as the discussion on common services hinted, this understanding is not consensual.

Given the disputed interpretation of the Law, Brazilian jurist Marçal Justen Filho proposed a definition of specialized technical professional services. According to him, specialized technical professional services have three characteristics: (a) they are supervised by a professional order, (b) they demand the application of theoretical knowledge, and (c) they require a level of skill that is bigger than the usual for professionals working in their respective fields. Professionals who are required for these services must possess special abilities, allowing them to solve difficult and complex problems[34] (Justen Filho 2009, 165).

Justen Filho's definition contributes to a better understanding of the concept. However, it also contains vague concepts, especially the level of skills "bigger than the usual", and "difficult and complex problems". Procurement officials would thus need to rely on their reflective judgement to categorize particular architectural services under this concept.

Arguably, the concepts of *service of predominantly intellectual nature* and *specialized technical professional service* are very close. But drawing on Justen Filho's definition of the latter, it is reasonable to conceive service of predominantly intellectual nature as a broader concept, encompassing specialized technical professional service. Thus, some services of predominantly intellectual nature may be specialized technical professional services, in which case the Law states that the preferred solicitation method is prize

[34] In the original: "*Serviço técnico profissional especializado: necessita uma capacitaçao maior do que a usual e comum e é produzida pelo dominio de uma area restrita, com habilidades que ultrapassam o conhecimento da média dos profissionais necessarios ao desenvolvimento da atividade em questao. O especialista dispoe de uma capacitaçao diferenciada, permitindo-lhe solucionar problemas e dificuldades complexas*."

competition. When it is not the case, procurement officials could use their discretion to decide which solicitation method and awarding process is the most appropriate.

7.1.4 RDC actions

When the service procured is not a common service, procurement officials must also assess whether it is within the scope of an RDC action, which could frame the service under Law 12.462. Determining whether a service is within the scope of an RDC action seems to demand an objective judgement of the subject matter of procurement. As seen on Section 6.2.4, the law provides a list of RDC actions, leaving little room for interpretation.

7.1.5 Estimated values

The regulatory framework establishes that public procurement is not mandatory for services that are estimated to cost less than R$ 8.000,00. Request for proposals may be used for contracts up to R$ 80.000,00; request for quotations must be used for contracts up to R$ 650.000,00; and open tendering must be used for contracts above R$ 650.000,00. There are no estimated value thresholds for the use of prize competitions, reverse auctions and RDC.

7.2 Technical criteria

The Brazilian regulatory framework grants, to procurement officials, freedom to devise technical criteria under certain limits. Drawing from the review in Section 6.2, I summarize all possible technical criteria according to awarding processes on Table 4.

In what regards technical qualification criteria, procurement officials use their discretion for the following decisions: (a) they must decide which capacities are relevant to the services procured (Law 8.666, Art. 30, § 1, II); (b) they must decide whether the required capacities should be applied on the professional or group of professionals working for a bidding firm or applied on the bidding firm itself (Law 8.666, Art. 30, § 1, § 10); and (c) they must determine the quantity of these capacities that will be required, up to 50% of the services

procured (IN-5 Appendix VII-A item 10.3.a). Concerning the latter point, it must be noted that Law 8.666 does not require a minimum quantity of capacities, yet IN-5 does. Brazilian jurists have argued that procurement officials are better off establishing this quantity whenever possible (Motta 2000, 120; Garcia and Neme 2004, 2). In this vein, the Federal Audit Office has suggested that a minimum quantity of capacity, compatible with the quantity of services procured, should be included in solicitation documents (TCU 2010a, 359).

Table 4 - Technical criteria according to awarding process

<table>
<tr><td>Awarding process</td><td>Technical qualification criteria</td><td colspan="2">Technical evaluation criteria</td></tr>
<tr><td>Price-based</td><td rowspan="3">• Membership of professional order (mandatory)
• Proof of capacity related to the most relevant and most expensive items of the subject matter (mandatory)
• Quantity demanded up to 50% of service procured</td><td></td><td></td></tr>
<tr><td>Value-based</td><td rowspan="2">• Bidders' capacity and experience
• Proposed methods and organization
• Technology and resources to be employed
• Qualification of the team that will perform the service</td><td></td></tr>
<tr><td>Quality-based</td><td>• Additional criteria relevant to the service procured</td></tr>
</table>

With respect to technical evaluation criteria, procurement officials may decide which criteria – amongst those proposed by the law – will be demanded, provided such criteria can be objectively measured (IN-5 Appendix VII-A item 8.10.a). Evaluation criteria are required for value-based and quality-based awarding procedures. For quality-based awarding procedures (prize competitions), procurement officials may also determine additional evaluation criteria that could be relevant to the service procured. Furthermore, as reviewed in Section 6.2.2.5, there is no minimum number of evaluation criteria that should be employed and there is no restriction on how weights should be attributed to technical criteria and to price, which put a good deal of formal discretion in the hands of procurement officials. Evaluation criteria cannot be employed in price-based procedures.

Although regulations do not mention specifically architectural services, it is plausible to consider that technical criteria for these services should employ capacities that are relevant to the technical dimension of the service procured, as discussed in Section 4.4. When this is not the case, criteria employed may be considered arbitrary. Procurement officials must not just reproduce the contents of regulations and use them as technical criteria; they are instead expected to objectively define these criteria and establish a minimum quantity of capacity that will be considered compliant (Sampaio et al. 2011, 585).

It should be reminded that, concerning solicitation methods, reverse auctions are always price-based; prize competitions are always quality-based; open tendering, request for quotations and request for proposals can be both price-based or value-based, while RDC can be price-based, value-based or quality-based. Therefore, there is a relation between the solicitation method employed, which depends on how the service is classified, as seen in the previous section, and the use of qualification and/or evaluation criteria.

7.3 Services procured

The regulatory framework is not restrictive regarding what services can be procured. Only services related to the strategic functions of public organizations cannot be contracted out (IN-5 Art. 9). However, some remarks must be made with respect to the way procurement is carried out.

Alongside the specification of each service procured, it is necessary to inform the quantity of service procured (IN-5 Appendix V items 2.1.a, 2.4.a). Different but interrelated services can be procured in the same procedure. But each service must be procured by means of its respective item (TCU 2014, 31). Procurement officials should attribute a classification from the CATSER table to each item, reflecting the nature of the service procured (IN-5 Appendix V item 2.1.b). Finally, services are not supposed to be procured using the formalized price system (SRP) (Brasil 1993, Art. 7, § 4).

7.4 Considerations on intended policy

From the analysis of intended policy, one can contend that procurement officials do hold fair-sized formal discretion when procuring architectural services. Depending on how architectural services are classified and on the estimated value of these services, they may choose different solicitation methods and technical criteria. Furthermore, contradictions within the regulatory framework, as reviewed in Section 6.2.7, result in increased discretion for the choice of solicitation methods. This argument goes against a common perception that the Brazilian regulatory framework lacks flexibility for the procurement of services (World Bank 2004, 2; Rosilho 2011, 185; Fernandes 2014, 24).

This discretion, however, must be bounded by the contents of the law. Although IN-5 establishes reverse auctions as the preferred solicitation method for any service, Law 8.666 gives preference for prize competitions in procurement of architectural services, yet leaving room for open tendering in any procurement procedure. Since a federal law takes precedence over a regulation, it is plausible to reason that, as a rule, architectural services should not be procured by reverse auctions.

In what concerns discretion in concrete cases, it is argued that operational discretion arises when one must judge whether a situation may be qualified under a concept provided by the intended policy. As approached in Section 2.4.2, this would be a reflective judgement, which depends on how the judge interprets the concept (Mello 2010, 431). To simplify this task, Mello suggests that we categorize concrete cases by what he calls “zones of certainty”. When a situation is in the positive zone of certainty, one is positive that the concept is applicable to that situation. When a situation is in the surrounding zone of certainty[35], one cannot be certain that the concept is applicable to that situation. When a situation is in the negative zone of certainty, one is certain that the concept is not applicable to that situation (Mello 2010, 436). This categorization is analogous to that proposed by Professor Jennifer Raso. She argues that some situations are “black and white”, meaning

[35] In the original: “zona circundante”.

that there is no doubt an instance of the law is applicable, whereas other situations are “grey zones”, where it is not clear the extent to which the law is applicable (Raso 2018, 71). Interpretation and discretion are thus limited to those doubtful cases in the surrounding zone of certainty, or grey areas. This way of proceeding is in line with an argument advanced by philosopher John Rawls. He contended that, when dealing with vague concepts, there will be borderline instances which are difficult to judge (Rawls 1955, 29).

Procurement officials must apply their discretion on concrete cases when they devise technical criteria. For this task, they must judge what experience and competencies will be required for each service being procured, but such judgement relies upon their own experience and competencies (Wittgenstein 1984, 87e; Cox and Ireland 2002, 417; Pigliucci 2010, 281). Nevertheless, as philosopher Bertrand Russell reasoned ([1954] 2014, 20), an incorrect judgement of a situation may be due not only to insufficient knowledge and competencies, but also to an intentional hiding of one’s real objectives. Procurement officials might thus employ intentional arbitrariness in their choices of criteria, ignoring intended policies. For instance, they could devise criteria in a way that favours a specific bidder. This is obviously against the spirit of the law and the public interest, and it may be a premeditated opening of the procurement process for corruption (Stake 2017, 1147).

An example may be useful to illustrate the relation between the concepts mentioned above. Procurement officials may need to procure an architectural project for the renovation of a heritage train station in a historic neighbourhood. They may judge that experience in designing renovation of any heritage building in a historic neighbourhood would be relevant to the technical dimension of the subject matter (positive zone of certainty). However, demanding experience in designing a new hospital would be considered arbitrary, due to the lack of relevance with the subject matter (negative zone of certainty). It is less clear, though, whether experience in designing renovation of a non-heritage train station in a historic neighbourhood would be compatible with the subject matter (surrounding zone of certainty). Procurement officials are thus expected to rely on their experience and competences to judge the applicability of the criterion to the concrete case.

The next step in this research is analyzing how procurement officials have applied intended policy to concrete cases of procurement. As mentioned in Section 6.1, there is little supervision and enforcement in the Brazilian procurement system. Furthermore, qualification is unevenly distributed amongst public officials, and they often lack skills necessary for performing their functions. In other words, procurement officials, working in a difficult environment and not having sufficient knowledge and capacities, apply their discretion for devising technical criteria and for determining what solicitation methods will be used. Under these circumstances, there could be a risk that discretion turns into arbitrariness, and thus that actual policy would diverge substantially from intended policy.

In the following chapters I will assess procurement officials' practices when procuring architectural services. I will look into concrete cases of procurement procedures, examining the connection between the services procured and respective solicitation methods and technical criteria. But before dealing with the results of this empirical inquiry, I must review the research design employed, which I carry out in Chapter 8.

8 Research design

I will consolidate the sections concerning methods of this study under the label *research design*, as suggested by Levitt et al. (2018, 32). Thus, in this chapter I present the general approach to inquiry, the data-collection and the data-analytic strategies used in this research, and I also include a section on reliability of data-analytic strategies (Drisko and Maschi 2016, 121).

8.1 General research approach – descriptive study

Philosophers of science from different traditions have stressed the need, for social scientists, of addressing practical problems of our times (Popper [1945] 1985, 376; Feyerabend [1991] 2017, 86; Mead 2010, 460; Kuhn in Raadschelders 2013, 6). Public administration as a field of study can be considered a social science (Riccucci 2010, s306). Public administration researchers should therefore use pragmatic problem resolution as a guide for their investigations (Whetsell 2013, 609). Public procurement can be seen as a means of implementing public policies, and as such it is a subject of public administration (Murray 2009, 94; McCue, Prier, and Steinfeld 2020, 15).

Many scholars argue that knowledge of the present situation of a phenomenon is a stepping-stone for proposing right policies regarding that phenomenon (Mills 1967, 77; Eco [1977] 2015, 36; Crick 2002, 3; Baggini 2016, 245; Bovens 2016, 662; Pigliucci 2017c). The study of current practices in public administration can help practitioners in their tasks (Caiden 1999, 313; Obwegeser and Müller 2015, 29; Moynihan 2017, 11; Stillman II 2017, 925). Thus, knowledge of current practices on technical criteria is the first move for proposing ways to devise better technical criteria. Accordingly, this inquiry can be seen as a problem-solving research, where theory is employed to analyze a particular problem in the real world (Phillips and Pugh 2010, 59), the real problem in this case being the difficulty to devise technical criteria.

The questions I ask in this study are bound to produce "world-revealing" and "action-guiding" knowledge, and their answers should be drawn "from [scholars'] judicious study of discernible reality" (Brown 2013, 493–94). Hence a descriptive study seems to be the appropriate avenue.

A descriptive study can be used to intelligently take stock of a situation (Gerring 2012b, 723; Campenhoudt, Marquet, and Quivy 2017, 21). A descriptive study is also fit for the descriptive nature of street-level bureaucracy theory. This thesis can thus be understood as a descriptive, interdisciplinary research, applying the framework of street-level bureaucracy theory on concepts from public procurement and architecture.

Before going further, it may be necessary to clarify my stance on the way this research is presented. The conventional way of presenting a scientific enterprise may convey the impression that it is a linear, rational process. However, scientific discovery is hardly a linear process (Feyerabend 1979, 15, 23, 307). To avoid this false representation of research, some scholars suggest the adoption of a reflexive posture, recognizing the relationship between the researcher and the research report (Bourdieu [1997] 2015, 79; Czarniawska 1999, 12; Grey and Sinclair 2006, 447). So I will present the sections on research design in a narrative fashion (Levitt et al. 2018, 34), describing the research process as it unfolded, and including discussions on the setbacks I encountered.

8.2 Methods and data

In studies on public procurement, researchers usually employ case studies or qualitative analysis, where data is generated mainly by interviews and document analysis (Patrucco, Luzzini, and Ronchi 2017, 242; Guarnieri and Gomes 2019, 9; Trammell, Abutabenjeh, and Dimand 2020, 662). In studies employing street-level bureaucracy theory, researchers traditionally employ qualitative approaches, but recent work has incorporated diverse methods and data sources, including administrative data, as reviewed in Section 5.5. Hence a large range of methods may be fit for this research, the choice of method will depend on

the type of questions proposed (MacIntyre 1991, 222, 229; Lake 2011, 472; Pigliucci 2017a).

The main questions in this study concern: (a) what technical criteria are used in practice; and (b) what actual policies deviate from intended policies; actual policies understood here as the dominant patterns of practices employed in procurement of architectural services. Technical criteria are thus analyzed as a result of procurement officials' discretion, framed by street-level bureaucracy theory.

The stance I adopt in this research is not to consider discretion as a matter of procurement officials' perception, as suggested by Henderson, Țiclău, and Balica (2017, 623), but rather as the range of possible decisions framed by the law, mentioned in Section 5.2. Accordingly, decisions emanating from procurement officials' discretion concern technical criteria employed in procurement procedures, which should be coherent with the services procured and with the solicitation methods employed.

Although technical criteria do not exist physically, they do exist empirically, in the sense that they can be applied on people (i.e., bidders) and that some people's actions (i.e., procurement officials') will be determined by them (Kant [1795] 1949, 469). Following this reasoning, a criterion applied in practice can be analyzed as something objective, even if it is not a physical object (Baggini 2016, 114). For instance, the fact that the criterion "experience with designing at least 500 square meters of pools" was demanded in a procurement procedure calls for an objective judgement, it does not depend on interpretation. Nevertheless, to unveil what actual policies deviate from intended policies, I must assess the discrepancy between them, which calls for a reflective judgement. Thus, it is not possible to bypass interpretation when answering this question.

Given the different types of judgement embedded in this research, I will combine quantitative approaches, using descriptive statistics to describe technical criteria, services procured and solicitation methods, with qualitative approaches, to analyze the discrepancy between intended policy and practices. This approach was also used by Mansfield and

Snider in their research on gaps between policies and practices in U.S. Navy Contracts (2017, 161).

Scholars have advocated the use of mixed methods in public procurement research but, as it is the case with street-level bureaucracy theory, this approach remains underused (Patrucco, Luzzini, and Ronchi 2017, 262). This research is thus inspired by later work on street-level bureaucracy theory, using administrative data and document analysis to unveil discrepancies between intended policies and practices.

The use of government administrative data for the study of public procurement has been encouraged (Obwegeser and Müller 2015, 29). Administrative data on public procurement have already been employed for studying issues such as strategies for sustainable procurement in housing (Alencastro, Fuertes, and Wilde 2017, 13), effects of price-only selection criteria (Ochrana and Hrnčířová 2015, 45), or economic qualification criteria in Brazil (Machado 2006, 125). This type of information, which is usually drawn from readily-available sources, can be used for the construction of indicators intended to provide answers to research questions (Haber 2017, 147).

I will employ data available in *Comprasnet* to answer my research questions, as I describe in the next sections. By using data from *Comprasnet*, I intend to take advantage of the Brazilian well established tradition of open data (Zanatta 2019, 11).

8.3 Data-collection and data-analytic strategies

In Section 6.2.10 I presented the sources of data that are public and accessible via the internet regarding public procurement in Brazil. Searching for information in all platforms (such as *Licitaçoes-e*, state and municipal systems) would be too time consuming. Hence my research will be limited to procurement from entities that use *Comprasnet* for public procurement. This includes public procurement of all Brazilian federal administration, for whom the use of *Comprasnet* is mandatory. Since data from *Comprasnet* should be available and openly accessible, a documentary research based on information from *Comprasnet* seems to be the best choice for collecting data.

Documentary research is an unobtrusive method, meaning that data can be collected without disturbing the phenomena under study (Payne and Payne 2004, 61, 229). The limitations of this type of research are authenticity, credibility, representativeness and meaning (Payne and Payne 2004, 65; Denscombe 2007, 232–33).

In what concerns authenticity, I will use public documents that were produced by procuring entities and that are available in a governmental database. I deem the possibility of forgery is absent or extremely low in this case. Concerning credibility, these documents are the ones employed in actual procurement procedures, so credibility may be assumed. Regarding representativeness, the number of documents to be analyzed is limited by the feasibility of the study being carried out (Leray and Bourgeois 2016, 429). Nevertheless, I will study all documents available in the selected period (year 2017), the results can thus be considered representative of recent practices regarding technical criteria. Finally, the meaning of the documents should not be a problem for me, since they are written in Portuguese, which is my mother tongue, and I have experience in the fields of architecture and public procurement.

For analyzing the data, I will proceed a two-step method, since I must first recognize practices in order to trace the actual policies related to the research questions in this study. For the first step, I will employ basic content analysis, which is a quantitative method of analysis applied on existing documents (Payne and Payne 2004, 51; Bowen 2009, 32; Drisko and Maschi 2016, 21). It is based on the attribution of codes to the data analyzed, and such codes may be developed before the analysis, drawing on the theory or on existing studies; or they may be devised inductively during the analysis (Drisko and Maschi 2016, 125; Leray and Bourgeois 2016, 443). For the second step, I will employ pattern coding, which is an inductive method for deriving meaning from pre-coded data (Miles, Huberman, and Saldana 2013, 86). The first step is intended to provide answers to sub questions (b), (c), (d) and (e), and the second step is intended to provide answers to sub question (f), as mentioned in Section 5.7.

Since the time frame of this study must be limited for assuring its feasibility (I further discuss this issue in Section 8.4.1.4), this research design may be classified as a cross-sectional, descriptive study, in which I will detail the characteristics of a population within a specific time frame (Drisko and Maschi 2016, 33).

Before proceeding further into the data collection and the data analysis, I will review the sources and the structure of data. This review will help understanding the remaining of this research.

8.3.1 Sources of data

In this study, I used the five sources of data described below. In a limited number of cases, I also contacted procuring entities directly to request for data that were not available in these sources, as I will report in Section 8.4.1.2.

- API *de Compras Governamentais* (Governmental procurement API – Application Programming Interface): database intended to yield open format data on all procurement available in *Comprasnet*. It is possible to download data from it in formats *html, xml, json* and *csv*. Some experience with databases is required for using the downloaded data.
  http://compras.dados.gov.br/
- *Painel de preços* (Price panel): user-friendly website containing synthetic[36] information on concluded procurement procedures from the past two years.
  https://paineldeprecos.planejamento.gov.br/
- *Comprasnet:* system for the federal administration public procurement on the internet. It holds analytic information on all procedures, but it may require some experience for using its queries.
  https://www.gov.br/compras/pt-br

[36] I call *analytic information* in this study individual pieces of data, for instance the solicitation document of a procurement procedure. I call *synthetic information* data resulting from the accumulation of many analytic information, for instance the total value of procurement for services.

- *Portal de Transparência* (Transparency portal): internet portal leading to transparency pages of all executive federal public organizations, which are expected to hold analytic information on their procurement procedures.
  http://www.transparencia.gov.br/
- Procuring entities' internet sites: all public organizations are expected to render public analytic information on their procurement by means of their internet sites, in a section called *licitações* (procurement).
  Examples:
  https://www6g.senado.gov.br/transparencia/licitacoes-e-contratos/licitacoes, for the Senate; and *http://portal.iphan.gov.br/licitacoesConveniosContratos*, for IPHAN.

I will review what information I collected from each of these sources in Sections 8.4 and 8.5.

8.3.2 Structure of data

At this point, it is necessary to recall how the main concepts in this study are interrelated, for this relation will reflect the way I will structure data. Each procurement procedure comprises one or more items, and each item may comprise one or more criteria, as I illustrate in Figure 15. All data must relate to one of these three concepts.

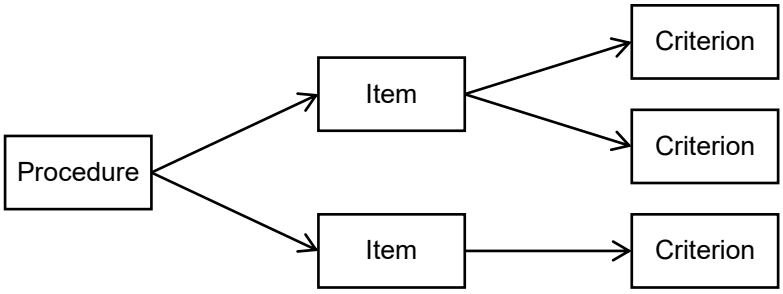


Figure 15 - Relation between procedures, items and criteria

It is also helpful to make clear how I will identify each procedure, since all data stem from this concept. Each procuring entity has its own numbering system, which means that procedures from different organizations may share the same number. Thus, to identify each

procedure, I will refer to them using the following nomenclature: *procedure CCCCCC NNNN/YYYY*, where CCCCCC is the code of the procuring entity (UASG code), NNNN is the number of the procedure assigned by the procuring entity, and YYYY is the year of first publication of the procedure. For instance, *procedure 380941 0007/2017* refers to procedure 7, published in 2017, by the procuring entity whose UASG code is 380941 (Delegacia Regional do Trabalho de Minas Gerais). Each item procured is also numbered. So, if I intend to mention item 4 of the procedure above, I will refer to it as *380941 0007/2017 item 004*. The list of UASGs mentioned in this research is available in Appendix 1.

8.4 Documentary research

8.4.1 Preliminary data selection

In line with its focus on controlling corruption in public procurement, the Brazilian government stated that the main goal of its procurement regulations is transparency (Brasil 2018c). Hence, I expected that access to administrative data from Brazilian government databases would be straightforward. However, selection and collection of relevant data was much more complex than what I had anticipated.

From Section 8.4.1.1 to Section 8.4.1.3, I will describe each step I took to get a preliminary list of relevant procurement procedures. For selecting data, I considered procurement for architectural services published in *Comprasnet*, which includes all procurement for federal public organizations. These services are architectural services that public organizations decided to contract out. But I did not include cases where procurement was not mandatory or was unenforceable, because in such cases no technical criterion is required. Due to a limitation of the system described below, initially I only included procurement procedures carried out in years 2016 and 2017.

8.4.1.1 Step 1: Obtaining service codes

As reported in Section 6.2.5.2, procurement officials must classify each item being procured according to the services catalogue available in *Comprasnet* – the CATSER table. So, my first strategy to select relevant data was to search for procurement procedures that included items classified as architectural services. Accordingly, I would need to, first, find out what are the codes in CATSER used for architectural services; then, select procurement procedures including items classified under these codes.

As part of its efforts to promote transparency, the Brazilian government yields data in open formats from *Comprasnet* for downloading by means of an Application Programming Interface – API, accessible from the site http://compras.dados.gov.br/ (Brasil 2018e). This API seemed very promising for my research, since it is supposed to hold relevant information, and I had previous experience working with this system. However, using the API turned out to be frustrating. I realized that data from it were not reliable due to a lack of systematic updating[37] and inadequate data format[38]. Furthermore, very often downloading tools do not work properly. When they do work, the quantity of information available for downloading is limited to 500 records. That is hardly helpful if one intends to gather data from thousands of procurement procedures. Finally, the API can be very difficult to use, due to the sheer quantity of data available, with hundreds of variables and unclear query methods.

Notwithstanding the issues mentioned above, I was able to extract the whole CATSER table from the API. This was only possible because the number of records in this table is relatively small. The CATSER table was important for it would let me know what the possible ways of classifying architectural services in *Comprasnet* are. Each record in this table comprises two fields: the description of the service or good and its corresponding

[37] From October 2017 to February 2019 the API was updated only twice, in November 2017 and March 2018.

[38] Frequently the downloaded data would not properly show Portuguese characters such as “ú”, “ç”, “õ”, etc. Furthermore, the contents of a field would include symbols like commas and semicolons. Since these symbols are also used to separate fields in databases, it was not possible to download the data in a format that enables automatic matching of fields.

numerical code. They range from *abacates* (avocados) to *zoneamento ambiental* (environmental zoning). In Appendix 2 I explain how I downloaded this information.

I imported the CATSER table into a MS-Access file. There were 2539 records in this table, and I scanned them for services that relate to architecture. I found three relevant service codes: 51 – *Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos* (studies and projects in urban planning, landscape architecture and architecture); 78 – *Estudos e Projetos de Arquitetura* (studies and projects in architecture); and 20591 – *Consultoria e Assessoria – Arquitetura* (consulting and advisory services in architecture). There are no guidelines detailing when each of these codes should be used, so procurement officials are expected to use their reflective judgement to classify architectural services under these codes.

I tried to download the list of procedures using the three service codes mentioned above from the API, using the query http://compras.dados.gov.br/licitacoes/v1/licitacoes.html?item_servico=78[39]. Unfortunately, I was never able to download these data correctly by means of the API[40]. So, I turned to *Painel de preços* to get the list of procedures including architectural services.

8.4.1.2 Step 2: Searching *Painel de preços* by service code

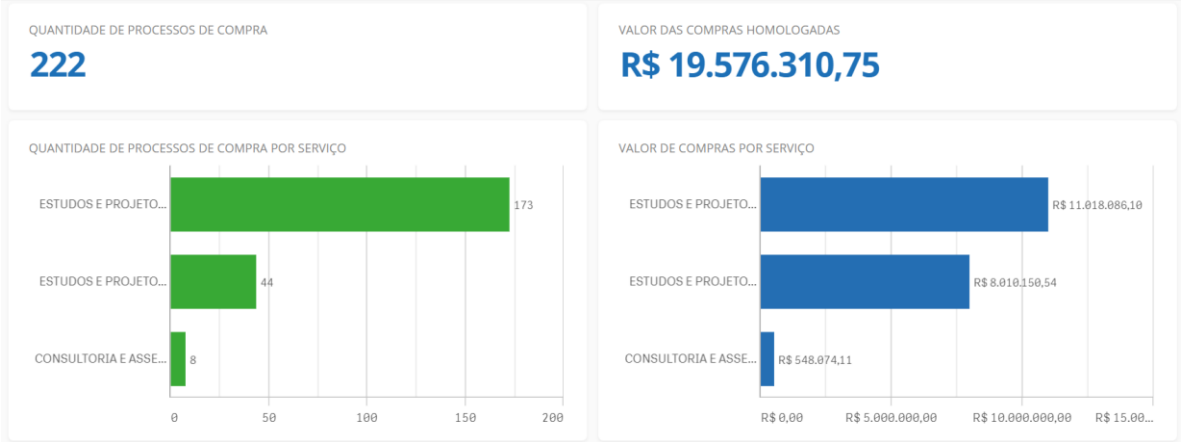
With the declared intention of helping procurement officials in their decisions, the Government set up a website – *Painel de preços* (Price panel) – in which information concerning concluded procurement procedures from *Comprasnet* can be assessed (MPOG 2018). *Painel de preços* offers a more user-friendly interface than the API, but it only

[39] To download data for all three service codes, I replaced the last two digits (78) by the other relevant service codes, namely 51 and 20591.

[40] I started using the API for collecting data by the end of 2017. I first tried to download the list of procedures in xml format, which did not work. Then I tried it in the csv format, but the downloaded file would not open in Access. Eventually I was able to save the files in plain text format and open it in MS-Excel, but many fields were truncated, and correcting truncated fields in thousands of records would be too lengthy. Moreover, from August 2018 on, I have never been able to replicate this search because I always get an error message from the API. When it comes down to it, it was a good thing to abandon this search because, as it turned out, CATSER codes are a poor indicator of architectural services, as I will discuss in Section 9.3.2.

compiles information regarding procedures concluded during the current year and the previous year.

It is possible to search information in *Painel de preços* by the numerical codes from the CATSER table. So, I searched for procurement procedures regarding the three types of architectural services I had found in the catalogue (codes 51, 78 and 20591). The results showed 222 records. Each record corresponded to one item being procured, and not to one procurement procedure. The total value of the items procured was R$ 19,5 million (Figure 16).



Source: http://paineldeprecos.planejamento.gov.br/PainelServicos.html - 2017-11-28
Figure 16 - Quantity and value of items procured

Since each procedure may comprise more than one item, I had to consolidate the records to get the number of procedures, which hints that there is room for improving the synthetic information provided by *Painel de preços*. The consolidation showed that there were only 13 procurement procedures comprising 222 items classified as architectural services in years 2016 and 2017.

Results from *Painel de preços* provided me the list of items procured classified as architectural services and their corresponding procedures. I filled a table in my MS-Access file with this list (*T_EDITAIS*), but I still had to download the available data for each of them. It is possible to download these documents directly from *Painel de preços.* In Appendix 3 I review the steps to download such data.

After downloading the documents for these 13 procedures, I started analyzing the information and realized that many services classified as architectural services were not architectural services. For instance, in procedure 153047 0019/2017 (by Hospital Universitário Cassiano Antônio Moraes), "referenced planialtimetric surveying" was classified as architectural service, and in procedure 158304 0044/2016 (by Instituto Federal de Educação, Ciência e Tecnologia do Sul de Minas Gerais), "electrical installation design" was also classified as architectural service. It seemed likely that the opposite would also be true: there could be architectural services classified as other types of services.

8.4.1.3 Step 3: Searching data in *Comprasnet*

Given the issue above, I had to find a way to extract data concerning architectural services that were classified incorrectly and make sure that I would have information concerning all procurement for architectural services available. As mentioned before, one could expect that *Comprasnet* would hold all information on procedures published or carried out by means of this system. So, instead of relying on results from *Painel de preços*, I decided to search for relevant procurement procedures directly in *Comprasnet*. I did not find any guide for doing queries in *Comprasnet*, so I relied on my previous experience with the system to find out how to do it.

It is possible to search for procedures in *Comprasnet* by means of keywords[41]. The results resemble the results from an academic database, as shown in Figure 17. Each record corresponds to a procedure including the keyword searched, and it displays the description of the subject matter of procurement (field *objeto*) and a link to download the corresponding procurement documents. This search is not restricted to completed procedures; it covers all procedures published in *Comprasnet*.

[41] http://comprasnet.gov.br/acesso.asp?url=/ConsultaLicitacoes/ConsLicitacao_texto.asp

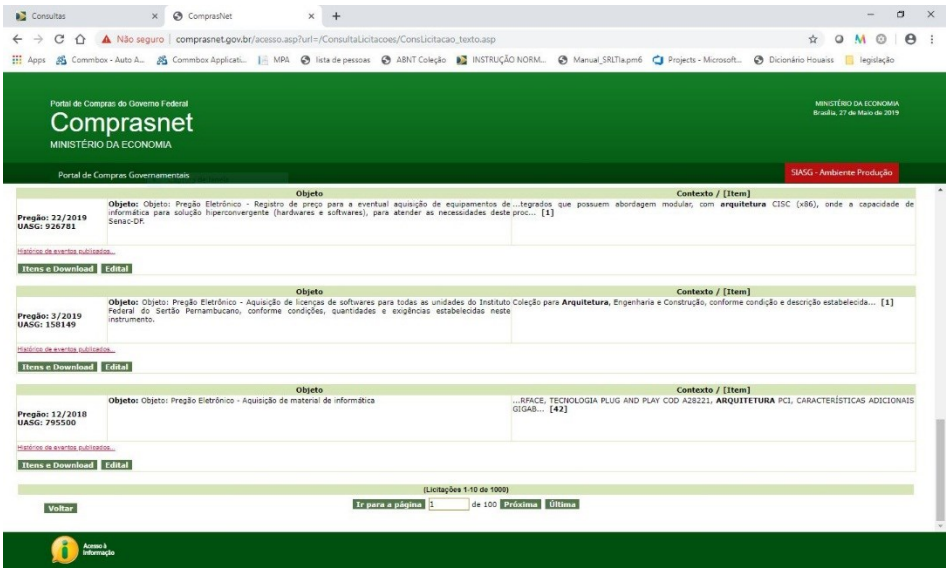


Figure 17 - Comprasnet screen: results of textual search using the keyword arquitetura

Obviously, my first move was to search for the keyword *arquitetura* (architecture) in procedures published during 2016 and 2017. However, results displayed hundreds of records concerning information technology procurement, since this is a word often used in that domain. I dropped this idea temporarily and searched instead for the word *urbanismo* (urban planning). In Brazil, architects and urban planners are the same profession (*arquiteto e urbanista*), and they are overseen by the same professional order (CAU), therefore I figured out I would likely find this word in procurement documents for architectural services. This search resulted in 134 records for years 2016 and 2017. After reading all descriptions to filter out those that were not related to architectural services, I narrowed down the results to 12 procedures, excluding two duplicates that I had already found in the first search (results from *Painel de preços*).

To make sure I would get all relevant data from 2016 and 2017, I also checked for the word *projeto* (project), which is ubiquitous in the description of architectural services. However, the system can display a maximum of 1000 records for each search and, in this case, I had more than 1000 records for each year. So, I decided to search instead for the expression *projeto basico* (basic project), since one can expect that architectural services will be procured either for producing a basic project or for producing an execution project based on an existing basic project. This search resulted in 702 records for 2016 and 721 records for 2017. After filtering out those that were not relevant and duplicates, I ended up with 67 new solicitation documents for both years. This search was very time-consuming due to the high number of records.

I decided to take on the search using the word *arquitetura* again, to make sure I would include all relevant procedures. This search resulted in 488 records for 2016 and 485 records for 2017. After filtering out those that were not relevant and duplicates, I ended up with 123 new solicitation documents for both years.

8.4.1.4 Step 4: Limiting selected records

The total number of procedures selected was 215. In Table 5 I discriminate the total number of records and the number of retained records by their source, as described in the previous section. I filled the table I was using (*T_EDITAIS*) with information regarding the source of data, procuring entities (UASG code), solicitation method and procedure number for each record.

I compiled the records by year, sorting the number of retained procedures by solicitation method. As I will review in the next section, this information is important because there are different ways to download documents, depending on the solicitation method employed. Results are shown on Table 6. The complete list of procedures from 2016 and 2017 is available on Appendix 4.

Table 5 - Number of records resulting from searches in Comprasnet and Painel de preços

Source	Searched terms	Total records	Retained records
Painel de preços	Service codes = 51, 78, 2059 Years = 2016, 2017	13	13
Comprasnet	Keyword = “urbanismo” Years = 2016, 2017	134	12
Comprasnet	Expression = “projeto basico” Years = 2016, 2017	1423	67
Comprasnet	Keyword = “arquitetura” Years = 2016, 2017	973	123
Total			**215**

Table 6 - Number of records by solicitation method and year

Solicitation method	‘2016’	‘2017’	Total
prize competition	1	0	1
RDC	8	19	27
request for proposals	1	5	6
reverse auction	78	67	145
open tendering	3	9	12
request for quotations	8	16	24
Total	**99**	**116**	**215**

At this point I had only downloaded procurement documents for the 13 procedures from the first search (results from *Painel de preços*). From my experience downloading these documents, I had estimated that it takes between five to thirty minutes to download each set of documents. If one considers that it could take an average of 15 minutes for each set, I would spend more than 50 hours just downloading the remaining 202 sets of documents. Furthermore, since 13 procedures concerned 222 items, it could be reasonable to suppose that the additional 202 procedures might concern a very high number of items. Downloading and analyzing these data would be exceedingly time-consuming, threatening the feasibility of this study. For this reason, I decided to carry on with the analysis of procurement procedures published in 2017 only, which would still provide a portrait of recent practices. Thanks to this decision, I reduced to 116 the number of sets of procurement documents to be downloaded and analyzed. Limiting the time frame of an inquiry for feasibility reasons is considered a valid strategy, as long as the researcher provides a thorough analysis of data selected (Eco [1977] 2015, 73; Gauthier 2016, 168; Leray and Bourgeois 2016, 439), which is my intention in this study. Furthermore,

procurement procedures in Brazil may take up to one year (World Bank 2004, 21; Oliveira 2009, 138), so halting the selection of data in year 2017 – instead of incorporating new data from 2018 – would improve the chances that I would only get information from completed procedures[42].

8.4.2 Gathering documents

Since data on procurement procedures published or carried out in *Comprasnet* are expected to be available in that system, I reckoned it would be feasible to download all relevant documents from it. However, I soon realized that not all documents are available there. Therefore I also had to search for information in the other sources mentioned in Section 8.3.1. I will review below the steps to collect data from *Comprasnet* and from the other sources.

8.4.2.1 Step 5: Downloading mandatory documents

It is possible to download mandatory documents, namely solicitation documents, respective reference terms and list of items, from *Consultas* (query) page in *Comprasnet*. These documents can be accessed from the *Licitaçoes* link, as shown in Figure 18. In Appendix 5 I review the steps to download the documents.

As expected, all mandatory documents were available in *Comprasnet*. However, these documents are not the complete set of documents in a procurement procedure. There could also be documents regarding the awarding of contracts, reports of on-line bids, protests and their analysis, documents sent by bidders to prove their compliance with criteria, reports of the assessment of criteria and other information. I will refer to this latter set of documents as *additional documents*. Such documents are important in this inquiry, for they bring information on the outcomes of each procedure. Not all procedures yield all documents, but it should be expected that at least a report regarding the awarding of the contract must be generated in every case.

[42] This was indeed a good decision, for the last 2017 procedure was only finalized in December 2018.

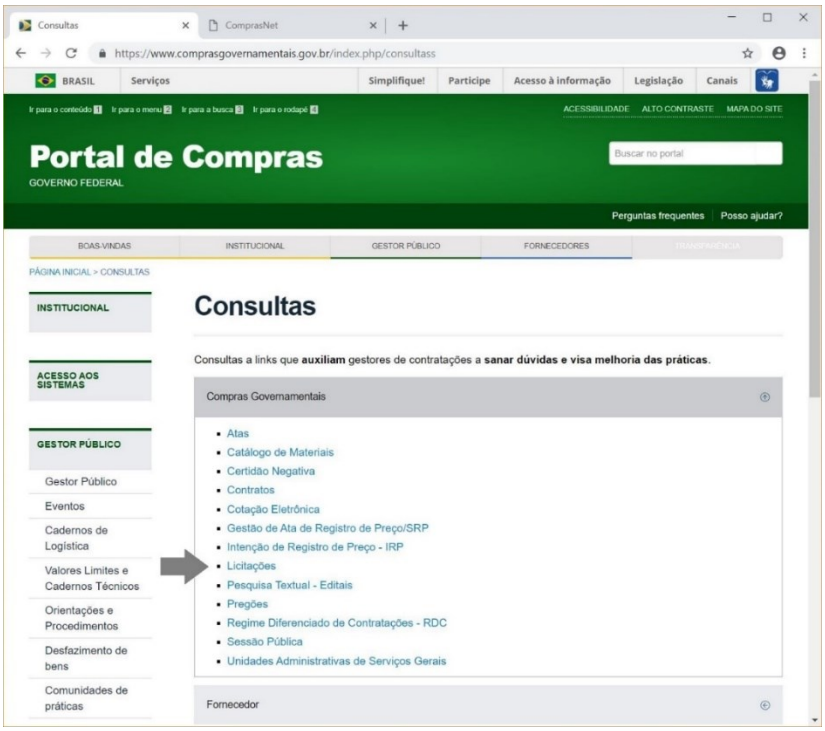


Figure 18 - Access to solicitation documents and reference terms from Comprasnet

8.4.2.2 Step 6: Downloading additional documents from *Comprasnet*

Unfortunately, additional documents are not accessible from a single point in *Comprasnet*. Instead, users must turn to three different queries, depending on the solicitation method employed in each procedure. From *Consultas* (query) page in *Comprasnet*, shown in Figure 19, three different links provide access to additional documents: (1) *Atas* (reports), for reverse auctions, framed by Law 10.520; (2) *Regime Diferenciado de Contratações – RDC*, for RDC procedures, framed by Law 12.662; and (3) *Sessão Pública* (public session) for open tendering, request for quotations, request for proposals and prize competitions, framed by Law 8.666. In Appendixes 6, 7 and 8 I review the steps needed to download these documents. I took on downloading the additional documents, expecting all of them would be available from these links.

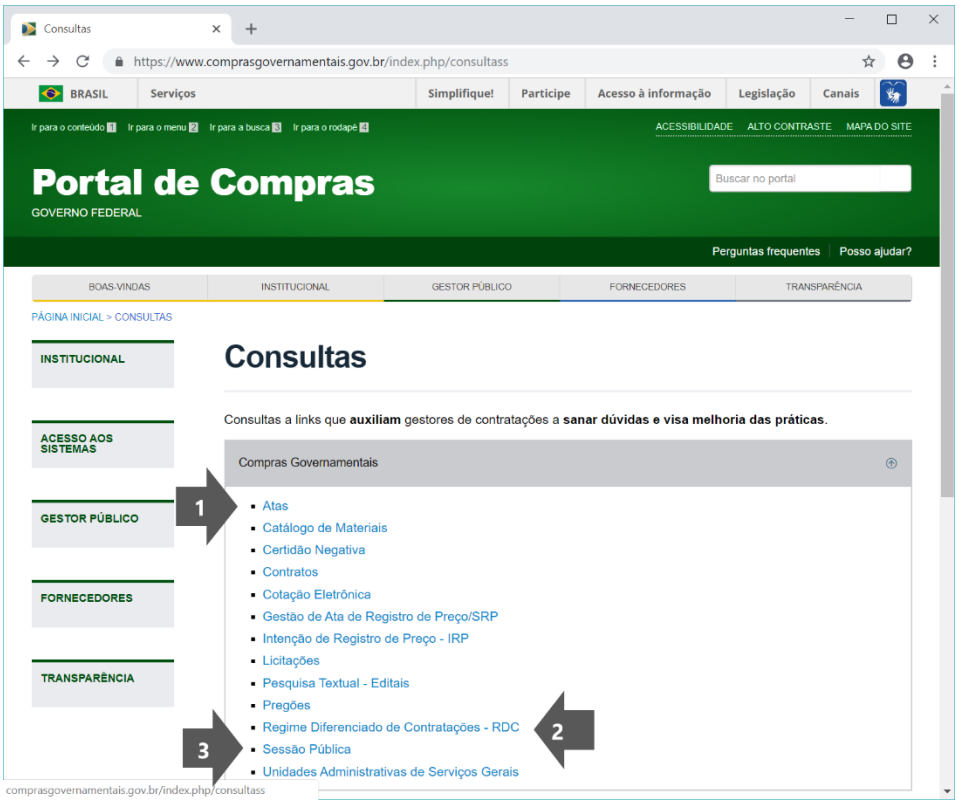


Figure 19 - Access to additional procurement documents from Comprasnet

Once again, I was overoptimistic. All documents concerning RDC procedures and most documents concerning reverse auctions were indeed available in *Comprasnet*. However, when I looked for documents concerning procurement by other solicitation methods, *Comprasnet* would frequently inform that the procedure was *on hold*, which seemed odd. Procedures *on hold* did not have additional documents available in *Comprasnet*. I decided to search for information regarding signed contracts for these *on hold* procedures. This information can be accessed from the API, by means of the address: http://compras.dados.gov.br/contratos/v1/contratos.html?uasg=CCCCCC, where CCCCCC is the code (UASG) of the procuring entity. This query yields a list of all contracts signed by the procuring entity.

In most cases I found that there was a signed contract for procedures that were informed as *on hold*. That meant procedures were concluded, but their information was not up to date in *Comprasnet*. Thus I had to collect additional documents for procedures *on hold* from the other sources of information listed in Section 8.3.1.

8.4.2.3 Step 7: Downloading additional documents from other sources

I started searching for additional documents in each procuring entity's website. If they were not available there, I would look for additional documents in the Transparency portal. In Appendixes 9 and 10 I review how to download information from procuring entities' websites and from the Transparency portal, respectively. Because documents were scattered in different systems, and because the search for RDC procedures is highly inconvenient[43], it took me three weeks working full time to download all available sets of documents regarding the 116 procedures selected.

Still, there were eleven procedures for which I found no additional information in any of the sources. In October 2018, I contacted the procuring entities responsible for these eleven procedures to request the information that was lacking. Until December 31, 2018, I had received the information concerning six of them. In February 2019 I proceeded a new and successful round of information requests for the remaining five. I eventually collected additional documents on all 116 selected procedures. I list these eleven procedures and review my attempts to obtain additional documents in Appendix 11.

In Table 7 I show the number of procedures by source of additional documents in this study, distributed by solicitation method. Most additional documents regarding open tendering, request for proposals and request for quotations were not available in *Comprasnet*. In eight cases of reverse auctions I had to request information. All these instances regarded procedures that were cancelled but their information was not updated in *Comprasnet*.

[43] As I mention in the appendix, it is impossible to do any search in the RDC system. Users must scan hundreds of web pages to find the procedure they are looking for.

Table 7 - Source of additional documents by solicitation method

Source	open tendering	RDC	request for proposals	request for quotations	reverse auction	Total
Comprasnet	3	19	1	7	59	89
Procuring entity site	3		1	5		9
Request of information	1		1	1	8	11
Transparency portal	1		2	4		7
Total	8	19	5	17	67	116

8.4.2.4 Overview of collected documents

From the analysis of collected documents, I compiled a list of all documents that may be available in each procedure, shown in Table 8. I also inform the origin of these documents – whether they were produced by the procuring entity or by bidders participating in the procedure.

Table 8 - Available documents

Document	Type	Origin
Solicitation document (*edital)*	Mandatory	Procuring entity
Reference terms (*termo de referência*) – often the solicitation document and the corresponding reference terms are in the same file	Mandatory	Procuring entity
List of items	Mandatory	Procuring entity
Appendixes to the reference terms – these usually include estimated budget, site plans, service delivery schedules	Additional	Procuring entity
Objections	Additional	Bidders
Judgement of objections	Additional	Procuring entity
Appeals	Additional	Bidders
Judgement of appeals	Additional	Procuring entity
Auction report	Additional	Procuring entity
Bidders' qualification documents	Additional	Bidders
Judgement on qualification	Additional	Procuring entity
Bidders' evaluation documents	Additional	Bidders
Evaluation and judgement of bidders' submissions	Additional	Procuring entity
Awarding of the contract (*homologaçao*)	Mandatory	Procuring entity

In total, I collected 342 files, corresponding to 319 megabytes of data, including mandatory documents and additional documents. The quantity of additional documents for each procurement procedure was not uniform. For instance, reverse auction 200207 0013/2017

features only four documents: the solicitation document including the reference terms, the list of items being procured, the auction report and the awarding of the contract (Figure 20). No protests were presented in this case. On the other side of the spectrum, there is, for instance, request for quotations 170088 0001/2017. This is a value-based procedure, therefore information available includes the solicitation document, the reference terms (alongside 18 appendixes), all administrative protests and their judgements, as well as reports on judgement of qualification and evaluation criteria, to a total of 45 documents collected (Figure 21).

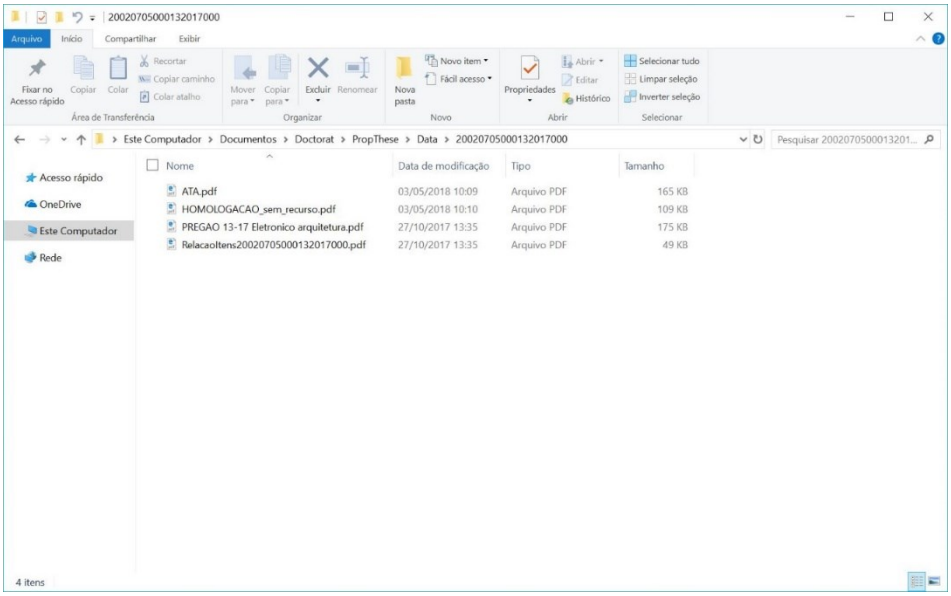


Figure 20 - Documents regarding reverse auction 200207 0013/2017

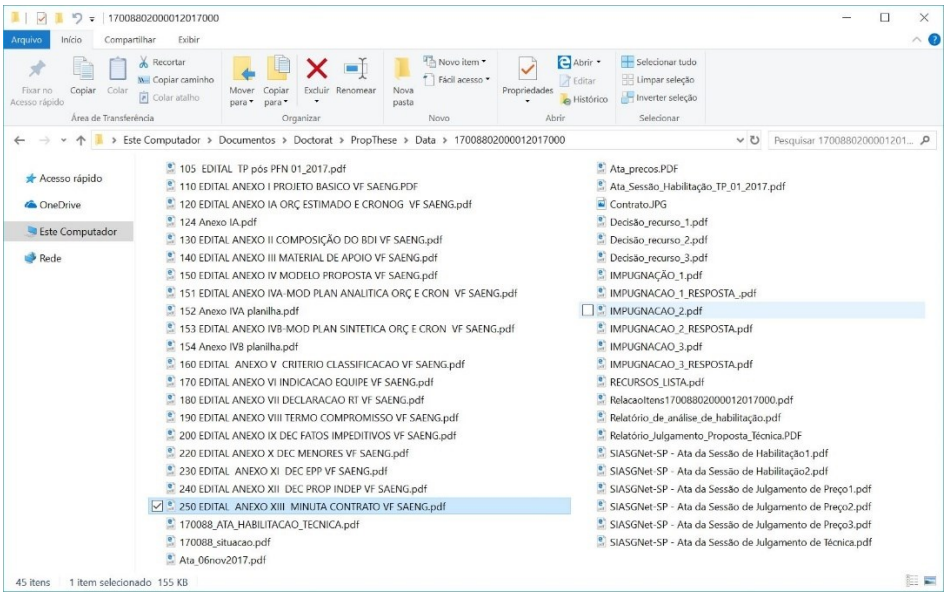


Figure 21 - Documents regarding request for quotations 170008 0001/2017

8.4.3 Secondary data selection

For content analysis, it is important to assure that the documents to be analyzed are relevant and meaningful for the research (Drisko and Maschi p.38). So, I filtered out documents which would not be relevant or meaningful in my analysis. This process involved two steps, which I describe below.

8.4.3.1 Sorting relevant procedures

In the first step, I sorted the 116 selected procedures according to their relevance to this research. I considered two instances of procedures as relevant: (a) procedures which include at least one architectural service; and (b) procedures in which architectural services are procured separately from construction. Therefore, I analyzed the lists of items and reference terms of each procurement procedure to make sure that only procedures respecting these criteria would be included.

From the 116 selected procedures, I noticed that ten of them did not include any architectural items. I had included these ten procedures initially because the description of their subject matter or their classification according to the CATSER table led me to believe that they would include architectural items, but after examining the documents, I realized it

was not the case. For instance, procedure 926697 0053/2017 comprised an item classified as 78 - *Estudos e Projetos de Arquitetura*, yet it did not include any architectural service[44], but only engineering services[45]. I excluded these procedures from my analysis. They are listed on Table 9.

Table 9 - Procedures without architectural services

UASG	procedure	solicitation method
080002	0016/2017	reverse auction
110322	0034/2017	reverse auction
153079	0001/2017	request for quotations
153167	0040/2017	reverse auction
158658	0001/2017	RDC
344001	0001/2017	request for proposals
765706	0001/2017	reverse auction
767000	0001/2017	open tendering
925175	0001/2017	request for proposals
926697	0053/2017	reverse auction

From the remaining 106 procedures, I also filtered out procedures that can be considered "integrated contracting". These are RDC procedures in which architectural services and construction services were procured in the same bid (DB approach, mentioned in Section 3.4). Since the cost of architectural services is much lower than the cost of construction, technical criteria for architectural services would not be relevant in such procedures. Therefore, these documents would not provide relevant data for this research. I found thirteen procedures in this situation, which I also excluded from my analysis. I show the list of these procedures in Table 10.

[44] I will discuss the issue of incorrect classification of items in Section 9.3.2.
[45] In the original: "*Elaborar os projetos executivos nas áreas de engenharia: Projeto de Estrutura(concreto armado e metálico), inclusive fundação e sondagem; Projeto de Instalações Elétricas; Projeto de Instalação para Energia Solar com placas fotovoltaicas; Projeto de Instalações de Dados /Voz e Sonorização; Projeto de Instalações de Sistema de Segurança – CFTV; Projeto de Instalação de Proteção de Descargas Atmosféricas – SPDA; Projeto de Instalação Hidrossanitárias, Drenagem, Sistema de aproveitamento de Agua Pluvial e Combate a Incêndio; Projeto de Instalações Mecânicas (climatização, exaustão)*". Source: reference terms, p.1.

Table 10 - Procedures regarding integrated contracting

UASG	procedure	solicitation method
153032	0001/2017	RDC
154070	0001/2017	RDC
154070	0002/2017	RDC
154070	0003/2017	RDC
155009	0001/2017	RDC
155009	0002/2017	RDC
155009	0003/2017	RDC
155009	0005/2017	RDC
158009	0002/2017	RDC
158009	0003/2017	RDC
158720	0001/2017	RDC
158720	0003/2017	RDC
343007	0001/2017	RDC

8.4.3.2 Sorting meaningful procedures

In the second step, I sorted the procedures that could bring meaningful information to this research. I deemed procedures in two situations would provide meaningful documents: (a) concluded procedures (those that resulted in an awarded contract), for in such cases one can infer that the technical criteria used did not prevent the awarding of a contract; and (b) procedures that were cancelled due to the absence of suitable bids, for in such cases technical criteria used might have prevented the awarding of a contract. Using these criteria, I analyzed auction reports and awarding of contracts of each of the remaining 93 procedures to find out their situation as of December 31, 2018. I inductively coded them according to five categories:

1. *cancelled (documentation error)*: procedures cancelled by the procuring entity due to an error in the solicitation documents;
2. *cancelled (no info)*: procedures cancelled, but no information is provided on reasons why they were cancelled;
3. *cancelled (no suitable bids)*: procedures cancelled by the procuring entity because no bidder complied with the criteria demanded;

4. *cancelled (replaced)*: procedures cancelled but replaced by another procedure with no information about the reason they were cancelled;
5. *concluded*: procedures finished with an awarded contract.

In Table 11 I show the number of procedures by these categories, distributed by solicitation method.

Table 11 - Number of processes by situation and solicitation method

Situation	Open tendering	RDC	Request for proposals	Request for quotations	Reverse auction	Total
cancelled (documentation error)		1			1	**2**
cancelled (no info)	3	1		5	4	**13**
cancelled (no suitable bids)					6	**6**
cancelled (replaced)					2	**2**
concluded	4	3	3	11	49	**70**
Total	7	5	3	16	62	**93**

For the purpose of including only meaningful documents, I filtered out procedures in situations *cancelled (no info)* and *cancelled (replaced)* because the lack of information regarding the outcome of these procedures would prevent me from getting valid conclusions from them. Procedures in the situation *cancelled (documentation error)* were also filtered out since they were cancelled due to reasons unrelated to technical criteria. Thus, I excluded seventeen procedures from this inquiry, listed on Table 12.

Table 12 - Procedures excluded due to their situation

UASG	procedure	solicitation method	reason
090005	0009/2017	reverse auction	cancelled (documentation error)
090005	0018/2017	reverse auction	cancelled (no info)
090023	0009/2017	reverse auction	cancelled (replaced)
090027	0032/2017	reverse auction	cancelled (no info)
090038	0001/2017	request for quotations	cancelled (no info)
090038	0002/2017	request for quotations	cancelled (no info)
120626	0002/2017	open tendering	cancelled (no info)
155124	0001/2017	RDC	cancelled (no info)
170217	0006/2017	reverse auction	cancelled (replaced)
170394	0001/2016	open tendering	cancelled (no info)
200139	0001/2017	request for quotations	cancelled (no info)

UASG	procedure	solicitation method	reason
254445	0001/2017	RDC	cancelled (documentation error)
255025	0001/2017	request for quotations	cancelled (no info)
343003	0001/2017	open tendering	cancelled (no info)
343034	0002/2017	reverse auction	cancelled (no info)
343036	0001/2017	request for quotations	cancelled (no info)
926245	0002/2017	reverse auction	cancelled (no info)

After excluding the procedures mentioned above from my analysis, there were 76 sets of documents left, from procedures in the categories *concluded* and *cancelled (no suitable bids)*.

8.4.3.3 Sorting relevant items

I had defined the 76 procedures for my analysis, but I still had to make sure that I would include only items that are relevant for this study. To this end, I needed to further examine each item in those 76 procedures.

I had already done a preliminary filter of relevant procedures based on the lists of items, as reviewed in Section 8.4.3.1. Because each procedure comprises one or more items that may regard architectural services or otherwise, I had to filter out items that did not include architectural services. For this end, I created a table (*T_ITENS_ARQ*) to gather information concerning each item being procured. I deductively classified each item according to the type of architectural assignment[46] listed by CAU-BR in its Resolution 21 (2012, Art. 2). I did not include in this table items that I could not classify as an architectural assignment. For instance, procedure 160066 0013/2017 comprises 21 items, but only two of them are architectural assignments; the remaining nineteen items regard civil engineering or electrical engineering services. So, I only included the two items regarding architecture.

In Table 13 I show the number of items classified by the type of assignment and the corresponding subparagraph under Art. 2 in Resolution 21. It is important to notice that

[46] In the original: "*atribuições profissionais do arquiteto e urbanista*".

at this point I still had not filtered services that are exclusively for architects, as established by CAU-BR in its Resolution 51 (Section 6.2.9.2).

Table 13 - Number of items by the type of assignment

Type of service	Res. 21	Number of items
architectural design	II	94
consulting (evaluation or supervision)	VI	3
drawing, surveying or electronic modeling	IV	3
outsourced workforce	VII	9
total		109

From the analysis of these items, I realized that not all of them corresponded to services that are exclusively for architects. Furthermore, the assignment classification from Resolution 21 Art. 2 does not provide a clear information on what the services are. However, Resolution 21 Art. 3 does provide a list of architectural services that is more detailed. So, I deductively coded all items again, using as a starting point the types of services listed in Resolution 21 Art. 3. Then I matched the services listed in Resolution 21 Art. 3 to the services exclusive for architects, as established in Resolution 51 Art. 2. In Table 14 I show the number of items organized by the type of service resulting from this coding.

Table 14 - Number of items by the type of service

Type of service	Res 21 Art 3	Res 51 Art 2	Nb items
Design for new construction	*1.1.2. Projeto arquitetônico*	*I-a. Projeto arquitetônico de edificação ou de reforma de edificação*	14
Design for renovation or retrofitting	*1.1.3. Projeto arquitetônico de reforma*	*I-a. Projeto arquitetônico de edificação ou de reforma de edificação*	44
Design for resuming construction	*1.1.3. Projeto arquitetônico de reforma*	*I-a. Projeto arquitetônico de edificação ou de reforma de edificação*	4
Design for accessibility	*1.1.6. Projeto de adequação de acessibilidade*	*VI-b. Projeto de acessibilidade e ergonomia da edificação*	12
Design for restoration	*1.11.1.7. Projeto de restauração*	*IV-a. Projeto e execução de intervenção no patrimônio*	5
Lighting design	*1.3.2. Projeto de luminotecnia*	*VI-a. Projeto de arquitetura da iluminação do edifício e do espaço urbano*	1

Type of service	Res 21 Art 3	Res 51 Art 2	Nb items
Acoustics design	*1.3.3. Projeto de condicionamento acústico*	*II-a. Projeto de arquitetura de interiores*	2
Interior design	*1.4.1. Projeto de arquitetura de interiores*	*II-a. Projeto de arquitetura de interiores*	2
Signaling and visual communication	*1.5.10. Projeto de comunicação visual para edificações*	*N/A.*	2
Landscaping and site design	*1.6.3. Projeto de arquitetura paisagística*	*III-a. Projeto de arquitetura paisagística*	6
Street and transit design	*1.9.4. Projeto de sinalização viária*	*I-h, I-k. Projeto urbanístico; projeto de sistema viário urbano*	2
Consulting (evaluation or supervision)	*5.2 Consultoria*	*I-e. Desempenho de cargo ou função técnica concernente a projeto arquitetônico*	3
data collection, drawing and modelling	*1.1.1. Levantamento arquitetônico*	*N/A.*	2
landscaping "as built" drawings	*1.1.7. As built*	*III-d. Cadastro do como construído (as built) resultante de projeto de arquitetura paisagística*	1
Outsourced workforce	*1.1.2. Projeto arquitetônico*	*I-e. Desempenho de cargo ou função técnica concernente a projeto arquitetônico*	9
Total			109

I must make some remarks regarding Table 14. First, four items cannot be regarded as services exclusive for architects, according to Resolution 51. These are the items concerning *signaling and visual communication*, and *data collection, drawing and modelling*. I dismissed these items from my analysis. Dismissing these items led to the exclusion of two procedures: 343041 0006/2017 and 254462 0010/2017. These procedures only included services that are not exclusively for architects.

Second, the items related to *consulting (evaluation or supervision)* and to *outsourced workforce* do not relate to a specific type of service. In such cases, the procuring entity is looking for architects, but the specific tasks are not determined beforehand. I kept these items in this analysis because they likely include services exclusive for architects.

Third, the type of service concerning *design for resuming construction* is not listed in Resolution 21 nor in Resolution 51. However, it is a service similar to *design for renovation or retrofitting* because it presupposes the necessity of a detailed data collection

assessing the situation of the building before proposing a design. For this reason, I classified the items regarding this type of service in the same way I classified *design for renovation or retrofitting*.

Finally, Resolution 51 includes “as built” drawings for landscaping projects as a service exclusive for architects. This seems peculiar, given that other types of “as built” drawings, including those regarding architectural design, are not listed as exclusive for architects. Furthermore, “as built” drawings are not projects, but rather drawings depicting the final construction. Nevertheless, I included the one item related to *landscaping "as built" drawings* in this analysis so the data remain consistent with my criteria.

Considering the exclusion of the four items that are not exclusively for architects mentioned above, and the resulting exclusion of two procedures related to these items, the collection of documents to be analyzed up to this point consisted of 74 procurement procedures, comprising 105 items. In Figure 22 I summarize the steps I took to select the relevant procedures as described so far in this chapter.

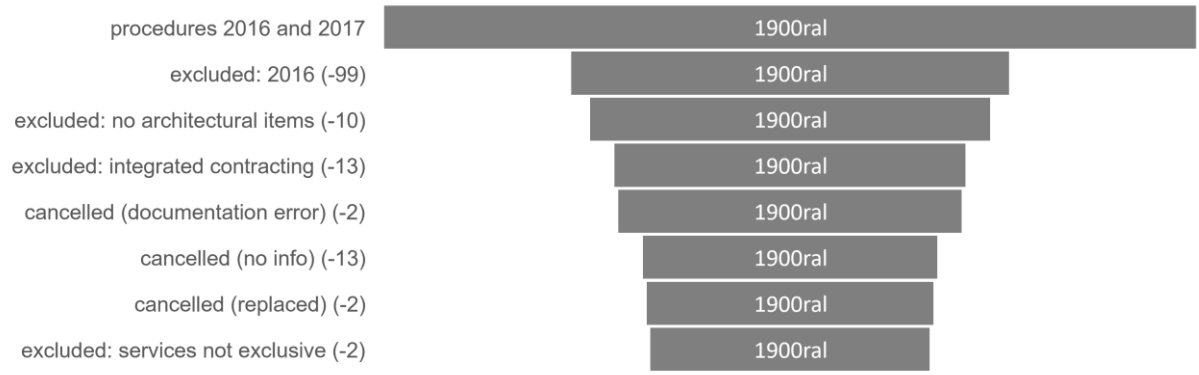


Figure 22 - Review of data selection

8.5 Basic content analysis

As mentioned before, I employed basic content analysis as the first step in the data-analytic strategy. In basic content analysis, researchers summarize and code data from documents which will be used as indicators for answering research questions (Drisko and Maschi 2016, 22; Leray and Bourgeois 2016, 428). Depending on the type of information, one may

apply a directed content analysis, in which categories are predetermined (Fortin 2010, 458; Hsieh and Shannon 2005, 1282), or a conventional content analysis, in which categories flow from the data (Hsieh and Shannon 2005, 1279). Directed content analysis is also referred to as deductive coding, and conventional content analysis is also referred to as inductive coding; a mix of both techniques – abductive coding – may likewise be employed (Drisko and Maschi 2016, 43).

8.5.1 Establishing categories

As Leray and Bourgeois suggest (2016, 442), I started the analysis by identifying the units of meaning, and the coding will flow from them. Units of meaning are the bits of data containing relevant information which will be used for coding (Leray and Bourgeois 2016, 442). However, to identify the relevant information, I needed to determine what categories I would require for my analysis (Leray and Bourgeois 2016, 429). Hence, following Creswell's recommendation (2014, 207), I show on Table 15 the categories in this study, relating them to their respective research questions. I review the contents of each category in Section 8.5.3.

Table 15 - Research questions and categories

Q.	Research questions	Categories	Sub-categories
b	What solicitation methods are employed for the procurement of architectural services?	• solicitation method • awarding process • estimated and contracted values • formalized price system	
c	What architectural services are procured?	• CATSER classification • type of assignment • type of service • service exclusive for architects • bundled item • phase of design • type of building • quantity of service procured • estimated and contracted values	

Q.	Research questions	Categories	Sub-categories
d	What technical criteria are used?	• capacity required	• type of criterion • subject • level of application • definition
		• quantity of capacity required	
e	What are the actual practices of procurement of architectural services?	• type of protests • validity of protest	

It should be noted that sub-question *e* above encompasses all categories. Moreover, an analysis of protests may unveil arbitrary practices, hence the inclusion of categories related to protests.

Having already gathered all documents, I could start collecting the units of meaning for procedures, items and criteria. Following the structure of data, I collected the units of meaning in two steps. I first gathered data concerning procedures, and then I gathered data concerning items and criteria, linking the latter to each procedure. I assembled the units of meaning in their original language (Portuguese) in the two tables I was already using: *T_EDITAIS* for data on procedures and *T_ITENS_ARQ* for data on items and criteria, as I review below.

8.5.1.1 Units of meaning on procedures

I filled table *T_EDITAIS* with the units of meaning for each procedure as follows.

- *Description of the subject matter* concerns the object being procured, which may comprise one or more items. This information provides a general idea of the set of services being procured. For instance: "*Contratação de pessoa jurídica especializada na elaboração de PROJETO BÁSICO COMPLETO necessário à construção de edificação que abrigará o Depósito de Veículos Apreendidos*" (procedure 170388 0001/2017).

- *Number of items being procured* is self-explanatory. This information was intended to provide an idea on the complexity of each procedure. It turns out this was hardly useful, because in many cases different services were procured in the same item.
- *Information concerning protests* regards all information on objections, appeals and their judgement. I included reasons for protests and whether procurement officials judged protests valid or otherwise. For instance: "*Uma impugnaçao solicitando que sejam aceitos atestados referentes a projetos residencias e institucionais de multiplos pavimentos, e nao apenas projetos comerciais. Esta impugnaçao nao foi analisada pois foi intempestiva*" (Procedure 152663 0015/2017).
- *Estimated value* is the amount estimated by the procuring entity concerning how much all items would cost.
- *Contracted value* is the price offered by the winning bidders.
- *My personal observations* include any information that could help me with the further analysis of procedures. They comprise, but are not limited to, information on awarding process, information on the use of SRP, and information on cancelled procedures. Information on awarding process can be found in solicitation documents. For instance, "*o critério de seleção da proposta mais vantajosa para o SENADO nesta Concorrência será o critério de TÉCNICA E PREÇO*" (procedure 020001 0001/2017 – solicitation document, p.13). Information on SRP can also be found in solicitation documents. For instance, "*o objeto desta licitação é o Registro de Preços para a contratação de empresa para prestação de serviços (...)*" (procedure 158720 0004/2017 – solicitation document, p.3).

In Table 16 I list these units of meaning and their sources. Sources refer to the documents collected for each procedure, listed on Table 8.

Table 16 - Units of meaning on procedures

Unit of meaning	Source
Description of the subject matter	Usually available in the solicitation document. In some cases, the solicitation document would not provide this information, instead it would refer to its respective reference terms.
Number of items being procured	List of items

Unit of meaning	Source
Information concerning protests	Objections, judgement of objections, appeals, judgement of appeals
Estimated value	List of items
Contracted value	Awarding of the contract
My personal observations	Any collected document

8.5.1.2 Units of meaning on items and criteria

I filled table *T_ITENS_ARQ* with units of meaning for each of the 105 items regarding architectural services and respective technical criteria, as follows.

- *Description of the item* concerns each item including architectural services. In some cases, architectural services and engineering services were bundled in the same item, e.g. "*projetos de arquitetura e engenharia ao nível de projeto executivo para reforma do térreo e mezanino (sobreloja) do edifício sede da Procuradoria Regional*", from procedure 200108 0008/2017 item 001. In other cases, items regarded only architectural services, e.g., "*projeto arquitetônico – projeto executivo*", from procedure 925942 0059/2017 item 008. I also added information regarding the quantity of architectural services being procured in square meters. Searching for this latter information was highly time consuming, for it could be found in the solicitation document or in the reference terms and their appendixes. But this search was necessary because the quantity of service informed in the list of items would usually not include this information. Yet, in some cases I was not able to find this information in any of the documents available, e.g., in procedure 160078 0001/2017.
- *Estimated value* is the amount estimated by the procuring entity concerning how much each unit of service procured would cost. Therefore, it is necessary to multiply the *quantity of item* by the value informed to get the total value (estimated and contracted) for each item.
- *Contracted value* is the price offered by the bidder who won the contract for each item.

- *Quantity of item* regards the quantity of service being procured. Sometimes the procuring entity provides this information in square meters, sometimes in units of service. In the latter case, the quantity equals to 1 for each service, because *one service* is being procured. This means the estimated value would not be informed in square meters, but for the whole service. For instance, in procedure 155008 0038/2017 item 003, the quantity of service procured was 2.750 square meters, and the estimated (R$ 42,06) and contracted values (R$ 3,00) were thus informed in square meters; whereas in procedure 200207 0013/2017 item 001, the quantity of service procured was 1, meaning that the estimated (R$ 23.175,60) and the contracted values (R$ 13.278,43) concern the whole service.
- *Classification according to CATSER* regards the code from the CATSER table used by procurement officials to classify the item procured.
- *Capacities demanded* regards the capacities required as technical criteria for each architectural service procured. These capacities can be operational or professional, as discussed in Section 6.2.2. Therefore, I included units of meaning for both levels of capacities. Since many architectural services were bundled with other services in the same item, I had to carefully read the technical criteria for each item to extract only units of meaning related to capacities demanded for architectural services.
- *Quantity of criterion* regards the quantity of each capacity that was required for architectural services.
- *Type of criterion* regards whether the criterion is a qualification or an evaluation criterion.
- *My personal observations* include any information that could help me with the further analysis of items and criteria. They comprise, but are not limited to, information on bundled items, the timeline for execution of services, value of architectural services when items are bundled, and additional information on technical criteria. These data were not always available in the solicitation documents, they could be scattered across additional documents. Information on the value of architectural services often required a time-consuming search in reference terms or in their appendixes, because it was necessary to separate this

value from the value of other services. For instance, in procedure 250025 0007/2017, this information was dug in Appendix 3 of the reference terms, which contained information on the proposed schedule for payment of the contract. In some cases, e.g., in procedures 158377 0040/2017, 170388 0001/2017 and 3453041 0006/2017, I was not able to find this information.

In Table 17 I list these units of meaning and their sources.

Table 17 - Units of meaning for items and criteria

Unit of meaning	Source
Description of the item	Usually available in the list of items. In cases of bundled services, it was necessary to look for further information in the solicitation document or reference terms to distinguish architectural services from other services
Estimated value	List of items
Contracted value	Awarding of the contract
Quantity of item	Usually available in the list of items.
Classification according to CATSER	List of items
Capacities demanded	Solicitation document or reference terms
Quantity of criterion	Solicitation document or reference terms
Type of criterion	Solicitation document or reference terms
My personal observations	Any source

8.5.2 Assembling units of meaning

Having completed the two tables with all data available, I created a query joining data from procedures with data from items and criteria. I then produced a *matrix report* from the resulting query, containing all units of meaning, from which I could code the data. The *matrix report* is available in Appendix 12.

As I explained in previous sections, I had to do a preliminary coding to be able to filter out data that would not be relevant for this research. In what concern procedures, I had already classified their solicitation method and their procuring entity (Section 8.4.1.4), as well as the situation (Section 8.4.3.2). In what concern items, I had already classified them according to (a) the type of assignment, as established by Resolution 21 Art.2; (b) the type

of service, as established by Resolution 21 Art.3; and (c) whether the service is exclusive for architects, as established by Resolution 51 Art.2 (Section 8.4.3.3).

I used the *matrix report* to code all remaining information needed for this study, as I report in the next section.

8.5.3 Coding

Some information did not require coding, I could take them directly from the matrix report, namely number of items, estimated and contracted values for procedures and items, and classification according to CATSER. Below I review the categories that required coding.

8.5.3.1 Awarding process

Each procedure is procured by means of one type of awarding process, which can be price-based (*menor preço*), value-based (*técnica e preço*) or quality-based (*melhor técnica*). Hence, I coded this information deductively. As mentioned before, all reverse auctions are price-based.

8.5.3.2 Formalized price system – SRP (*Sistema de registro de preços*)

I did not expect that SRP would be used for the procurement of architectural services. However, that was the case. Since this is clearly an instance where actual policy and intended policy diverge, I coded each procedure noting if SRP was used.

8.5.3.3 Reason for protest

For each procedure where a protest was submitted, I coded the reason for this protest. Based on the data, I established three main codes: *technical criteria*, *price feasibility* or *other*.

8.5.3.4 Validity of protest

For each procedure where a protest was submitted, I coded whether procurement officials judged the protest valid or otherwise.

8.5.3.5 Bundling architectural and engineering services

I coded whether architectural services were procured alongside engineering services or procured separately.

8.5.3.6 Phase of design

The phase of design can be useful for providing a finer characterisation of services procured. I coded this information deductively based on the guide provided by IAB (2018, 2). However, I added the classification *basic design*, which is provided by Law 8.666 but is not included in IAB's guide. This inclusion yielded five possible codes: *preliminary study, pre-design, basic design, legal design* and *execution design*.

8.5.3.7 Type of buildings

For each item that concerned architectural design, I coded the type of building that should be designed. I coded abductively, using the list of types of buildings proposed by Chiara and Crosbie (2001, v–vii) as a starting point, and adding additional types whenever needed. I provide a list of the codes used in Appendix 13. In that list I show the original information and my translation to English.

8.5.3.8 Capacities

I coded inductively the capacities demanded in each technical criterion. I also coded the following categories related to each capacity: *type of criterion*, which can be an evaluation criterion or a qualification criterion; *subject*, which can be bidder-specific or item-specific; and *level of application*, which can be professional or operational. Each capacity is associated to its corresponding item. The resulting list of capacities is available in Table 30 (Section 9.4.1).

8.5.3.9 Specific capacity and definition

While analyzing capacities, I realized that most of them employed vague terms that did not objectively specify what experiences or skills would be considered compliant with

technical criteria. So I created the code specific capacity for each capacity, which was supposed to inform whether capacities were objectively specified (e.g. "*[experiência em] projeto arquitetônico, referente a construção ou reforma de edificação comercial ou de serviços*" – procedure 020001 0001/2017) or remained general (e.g. "*atestados que comprove(m) a prestação de serviços com as características semelhantes ao objeto da contratação*" – procedure 080026 0001/2017). However, I had a reliability problem with this code, as I will elaborate in Section 8.8.4. For this reason, I had to recode items, but this time, I restricted the analysis to whether there was a *definition* of what sort of capacity would be considered compliant for each instance the capacity *experience with similar/ compatible/relevant design* was employed.

8.6 Case studies

To illustrate how procurement procedures are carried out and the negative impacts of ill-devised technical criteria, I produced four short case studies. A case study can be seen as a methodological approach in which the researcher investigates a phenomenon in order to draw a precise description; by analyzing a single instance, a case study enables the understanding of a larger system (Tsoukas 2009, 286; Roy 2016, 199).

I selected the cases using Seawright and Gerring's (2008, 297) techniques of case selection and analysis. I chose four procurement procedures for a deeper scrutiny, namely two diverse cases, one typical case and one deviant case. To be able to identify these cases, I had to first inductively code the information concerning actual practices, which is drawn from the basic content analysis, and then tabulate the frequency of noncompliant practices for each procedure, following Yin's methods for analyzing data (1981, 60). Thus, information for the cases come from the public documents described in Section 8.4.2.4, which may be produced by procuring entities or by bidders.

8.7 Pattern coding

For answering the sub question "what are the dominant patterns of practice that add up to actual policy?", I proceeded another round of coding, by means of the aptly named pattern coding method proposed by Miles, Huberman and Saldana. According to these authors, pattern coding is an interpretive method, which proposes to group data that has already been coded in order to "identify an emergent theme, configuration, or explanation" (2013, 86). When employing pattern coding, the researcher must try to find what the data have in common, organizing information into meaningful and more parsimonious units of analysis (Miles, Huberman, and Saldana 2013, 87).

Since pattern coding is appropriate for summarizing categories or themes (Miles, Huberman, and Saldana 2013, 87), it was an effective tool for unveiling dominant patterns of practice, based on the information regarding actual practices. I started the pattern coding by filtering out practices that were evidently in line with procurement officials' formal discretion. To achieve this, I took advantage of the concept of zones of certainty, discussed in Section 7.4. Then I grouped practices that were arbitrary or that seemed arbitrary into the three main categories used to organize the data, namely procedures, items and criteria. From this point, I tried to recognize dominant patterns of practice by grouping them into what I considered meaningful strategies employed by procurement officials in their tasks, taking clues from Lipsky's examples (1980, 82). Pattern coding results will be shown in Section 9.10.2.

8.8 Ensuring reliability

In content analysis, it is important to describe the steps taken to ensure the reliability of the coded data (Drisko and Maschi 2016, 126), which I undertake in this section.

It is suggested that, for assuring reliability in content analysis, two or more researchers should code the same data, and then their results must be compared to spot significant inconsistencies (Durand and Blais 2016, 239). Given the nature of a doctoral thesis, this

strategy was not feasible, for the work must be limited to one researcher. So I took on an approach proposed by Miles, Huberman and Saldana (2013, 85), which consists of coding the data twice, the second coding being conducted some time later than the first coding. Comparing results from each round of coding should reveal problems in the interpretation of data.

I did a first round of coding in May 2018, which resulted in 74 procedures, 105 items and 200 criteria. To assess the reliability of my initial coding, I recoded all categories, drawing from the matrix report, in January 2019. I then compared this second coding with the initial coding. I report below the discrepancies I found.

8.8.1 Wrong inclusion of service

During the second coding, I found one procedure that did not include any service exclusive for architects (procedure 040001 0072/2017). Although the solicitation document mentions services in the fields of architecture and engineering, none of the items can actually be classified under Resolution 51. This error occurred because I classified the item as *outsourced service* without realizing this issue. I excluded this procedure from my analysis.

8.8.2 Mismatched coding in the category *type of building*

I found one mismatched type of building. This case concerned procurement for the design of a multipurpose building for a university (procedure 152663 0015/2017). In the first coding I classified it as *office*, while in the second coding I classified it as *school/university*. Since I it seemed unreasonable to include a new type of building only for this case, I kept the latter classification, which I deem better represents the use of the building in the context of a university.

8.8.3 Mismatched coding in the category *capacity*

I found nine cases of mismatched capacities, which I review below.

- In five cases, I first coded them as *experience in architectural design*, while in the second coding I classified them as *experience with similar/compatible/relevant design*. I realized that, in such cases, the capacity demanded was indeed *experience with similar/compatible/relevant design*, but the criterion also included a definition of what is considered *experience with similar/compatible/relevant design*. One example was the criterion used in procedure 090023 0029/2017, which demanded experience with design that is relevant and compatible with the service procured, while also adding that any experience in architectural design would be considered relevant and compatible[47]. After reassessing these cases in conjunction with the issue of the coding for *specific capacity* and *definition* (Section 8.8.4), I decided to keep the results of the second coding, which better reflects what is required in these criteria.
- In two cases, I had first classified the capacities as *specialized experience*, whilst in the second coding I classified them as *experience in architectural design for restoration*. These cases concerned services for restoration of heritage buildings. The mismatching of codes occurred because this was an inductive coding, and I had not yet included the code *experience in architectural design for restoration* when I coded the first two cases. I kept the second coding for it better reflects the nature of the capacity required.
- In one case, I had first coded the capacity as *experience in architectural design*, whilst in the second coding I classified it as *experience in architectural design for renovation*. After reassessing the information in the matrix report[48], I considered that the second coding better reflects the capacity required.

[47] In the original: "*elaboração de projetos pertinentes e compatíveis em características, qualidade e quantidade, sendo consideradas parcelas de maior relevância e valor significativo: Projeto de arquitetura de edificações, públicas ou privadas, com pelo menos 3.000,00 m²*" (solicitation document p.26).
[48] In the original: "*execução de projetos de obra ou serviço de modernização, adaptação, reforma, construção de área que contenha cozinha e respectivos setores de apoio*" (procedure 765705 0001/2018 – solicitation document, p.6).

- In one last case, I included a criterion in the second coding that I had not included in the first coding at all. This case was in procedure 343036 0002/2017, and it concerns the capacity *experience in architectural design for restoration*.

8.8.4 Mismatched coding in the category *specific capacity*

I found ten cases of mismatched coding for *specific capacity*. I had devised this category to reflect whether the capacity demanded objectively specified what set of experiences or skills would be considered compliant with the criterion. For instance, I would judge as *objectively specified* the capacity "experience with architectural design for public buildings of for offices"[49], because it restricted the sort of experiences that would be accepted. Here, experience with architectural design for residences would not be considered compliant with the criterion. On the contrary, I would judge as *not objectively specified* the capacity "experience in architectural design for public or private buildings"[50] because, in practice, any experience in architectural design would be considered compliant with such a vague criterion.

The limits between what I would judge *objectively specified* and *not objectively specified* were difficult to trace. In some cases, such as "experience in architectural design for public or private buildings", it seemed that procurement officials would accept any experience in architectural design. In other cases, it was not clear what sort of experiences would be considered acceptable. These were the instances where procurement officials employed the capacity *experience with similar/compatible/relevant design* without explaining what would be considered similar, compatible or relevant.

The fact that any experience is accepted is not necessarily a problem, for simple projects may be executed by any professional qualified by the professional order. The problem lies in cases where it is not clear if any experience is indeed accepted or otherwise, because

[49] In the original: "*execução de projeto arquitetônico para prédios públicos ou escritórios*" (procedure 170217 0009/2017 – solicitation document, p.14).
[50] In the original: "*projeto de arquitetura de edificações públicas ou privadas*" (procedure 090012 0041/2017 – solicitation document p.13).

the assessment of what is similar, compatible or relevant requires a reflective judgement. This lack of objectivity may lead to arbitrary decisions, as I will illustrate in Section 9.6.3.5.

To set a better limit in my coding and improve reliability, I decided to ditch the category *specific capacity* and replace it by the category *definition*. *Definition* applies only to the capacities which I coded as *experience with similar/compatible/relevant design*, because these were the instances where I had this problem of reflective judgement. In this new coding, I would note whether these criteria included or not a definition of what is similar, compatible or relevant. For instance, I coded "proof of compatible experience with the most relevant service: architectural design for public buildings or offices"[51] as *defined*, while I coded "proof of operational capability for performing services that are relevant and compatible with services procured"[52] as *not defined*.

8.8.5 Summary of reliability issues

Considering that this research generated more than 2000 codes, the volume of errors I found during the second round of coding can be considered low. Nevertheless, the problems of the category *specific capacity* could have led to conclusions based on an analysis lacking reliability. These results thus corroborate the need for ensuring coding reliability.

The strategies to ensure reliability affected the set of data to be analyzed. As mentioned, I excluded procedure 040001 0072/2017, which led to the exclusion of one item and one criterion associated with this procedure. I also included a criterion that was lacking in the first coding, from procedure 343036 0002/2017. In the end, I had 73 procedures,

[51] In the original: "*Atestado compatível em características com o objeto da licitação envolvendo as parcelas de maior relevância e valor significativo: elaboração de projeto arquitetônico para prédios públicos ou escritórios*" (procedure 170217 0008/2017 –solicitation document, p.14).
[52] In the original: "*Comprovação de aptidão operacional para o desempenho de atividade pertinente e compatível com o objeto da presente Licitação*" (procedure 200043 0017/2017 –solicitation document, p.11).

corresponding to 104 items and 200 criteria to be analyzed. I will review the results from the coding and the analysis in the next chapter.

8.9 Comments on the research design

In retrospect, I could have simplified the research design by eliminating steps that were not useful. In the data collection phase, the search using the API could have been completely dropped. Searching in *Comprasnet* by means of keywords was much more efficient. That does not mean that the API is not useful. On the contrary, it could be a valuable instrument for transparency. But the format of downloaded data and the frequency of updates need improvement for it to become an effective tool.

In the data analysis phase, I could have skipped the triple categorization of items using regulations. As I mentioned, I classified them using Resolution 21 Art. 2, then Resolution 21 Art. 3, followed by Resolution 51. If I had just used the classification established by Resolution 51, I would have had the same quality of information. However, at the beginning of this study it was difficult to find my way amongst the myriad of superimposing rules established by CAU-BR and guides published by IAB. I had to try to apply them in this research to understand their utility.

Based on this experience, I devised the list below, which reviews the main necessary steps of data collection and data coding, indicating the respective sections in this study. Following these steps, it could be possible to apply this research design for inquiring technical criteria in procurement of other types of services. For instance, if researchers are interested in criteria for *building automation* services, they could search for these keywords in *Comprasnet*, and filter out procedures that are not relevant using definitions established in regulations from the field of mechanical engineering. Obviously, the categories and the coding would depend on each type of service researched. Also, studies concerning only reverse auctions would require less effort, given that the gathering of data would not imply the search of documents in sources other than *Comprasnet.*

1. Searching for procedures in *Comprasnet*
    1.1. Define keywords and period (Section 8.4.1.3)
    1.2. Filter out results that are not relevant (Section 8.4.1.4)
2. Collecting procurement documentation
    2.1. Download documents from *Comprasnet* (Section 8.4.2.2)
    2.2. Download documents from Transparency portal and internet sites, and demand for missing documents (Section 8.4.2.3)
3. Selecting procedures
    3.1. Sort out procedures that are not relevant or meaningful (Sections 8.4.3.1—8.4.3.2)
4. Selecting items
    4.1. Sort out items that are not relevant to the study (Section 8.4.3.3)
    4.2. Exclude procedures that only included items not relevant (Section 8.4.3.3)
5. Coding
    5.1. Determine needed categories (Section 8.5.1)
    5.2. Extract units of meaning from documents (Section 8.5.1.1)
    5.3. Create report gathering all units of meaning (Section 8.5.2)
    5.4. Code drawing on units of meaning (Section 8.5.3)

9 Results – practices on procurement of architectural services

In this chapter I will present what I found in the empirical data collected. Before proceeding further, however, it might be useful to recall the aim of this descriptive study, which is to analyze technical criteria used by procurement officials in Brazil to select providers of architectural services. This analysis is carried out by means of the concept of administrative discretion, supported by the street-level bureaucracy theory. Administrative discretion comprises formal discretion and operational discretion (Section 5.2). Intended policies constitute formal discretion, while actual policies comprise dominant patters of practice resulting from operational discretion. The main question that emerged from these concepts is: *which actual policies concerning technical criteria for procurement of architectural services deviate from intended policies on procurement in Brazil*?

From this main question, I propose to analyze the data by means of the following sub-questions: (1) What solicitation methods are used for procurement of architectural services? (2) What services are procured? (3) What criteria are employed? (4) What are the actual practices of procurement of architectural services? In Table 18 I provide a general overview of the results, listing procedures and their respective solicitation methods; each item concerning architectural services; and criteria for each service, discriminating operational and professional criteria, as well as qualification and evaluation criteria. As I mentioned in Section 8.8.5, the coding resulted in 73 procedures, 104 items and 200 criteria.

In the following sections I will answer the research questions. An important issue emerged, though, in connection with these questions. It concerns transparency, which permeated all steps of data collection. Thus, I will start this chapter dealing with the matter of transparency, followed by a review on solicitation methods, services, criteria, as well as an analysis of protests and cancelled procedures.

Table 18 – List of procedures, items and criteria

ot = open tendering, ra = reverse auction, rp = request for proposals, rq = request for quotations,
o = operational criterion, p = professional criterion, e = evaluation criterion, q = qualification criterion

PROCEDURE		ITEM		CRITERION		
020001 0001/2017	ot	001	design for renovation or retrofit	o	e	experience in architectural design for new construction or for renovation
					q	architect or engineer working for the bidder
				p	q	experience with similar/compatible/relevant service
		002	design for renovation or retrofit	o	e	experience in architectural design for new construction or for renovation
					q	architect or engineer working for the bidder
				p	q	experience with similar/compatible/relevant service
		003	design for renovation or retrofit	o	e	experience in architectural design for new construction or for renovation
					q	architect or engineer working for the bidder
				p	q	experience with similar/compatible/relevant service
080002 0002/2017	ot	001	design for resuming construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
080016 0019/2017	ra	001	any type of design - outsourced	o	q	specialized experience
				p	q	experience with similar/compatible/relevant service
		002	any type of design - outsourced	o	q	specialized experience
				p	q	experience with similar/compatible/relevant service
080026 0001/2017	rq	001	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
090003 0031/2017	ra	001	design for accessibility	p	q	architect or engineer working for the bidder
090012 0001/2017	ra	001	any type of design - outsourced	o	q	experience in outsourcing
				p	q	experience in architectural design
090012 0006/2017	ra	001	any type of design - outsourced	o	q	experience in outsourcing
				p	q	experience in architectural design
090012 0023/2017	ra	001	design for new construction	o	q	experience in architectural design
				p	q	experience with similar/compatible/relevant service
090012 0041/2017	ra	001	design for resuming construction	o	q	experience in architectural design
				p	q	experience with similar/compatible/relevant service
090023 0029/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
090023 0059/2017	ra	001	design for renovation or retrofit	o	q	experience in architectural design
				p	q	experience with similar/compatible/relevant service
090038 0004/2017	ra	001	any type of design - consulting	o	q	architect or engineer working for the bidder
				p	q	experience in architectural design
120196 0001/2017	rq	001	design for new construction	o	q	experience in architectural design
				p	q	experience with similar/compatible/relevant service
152663 0015/2017	ra	001	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		002	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		003	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		023	landscaping and site design	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		024	landscaping and site design	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		025	landscaping and site design	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
153047 0019/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
		002	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
		024	design for accessibility	o	q	experience with similar/compatible/relevant service
153052 0005/2017	rq	018	design for new construction	o	e	experience in architectural design
				p	e	experience in construction or renovation of buildings
					q	architect or engineer working for the bidder
		019	acoustics design	o	e	experience in acoustics design
				p	e	experience in construction or renovation of buildings
					q	architect or engineer working for the bidder
		020	lighting design	o	e	experience in lighting design
				p	e	experience in construction or renovation of buildings
					q	architect or engineer working for the bidder
153103 0024/2017	rdc	001	design for restoration	o	q	experience in architectural design for restoration
				p	q	experience in architectural design for restoration
153167 0037/2017	ra	001	design for resuming construction	o	q	experience in architectural design for new construction or for renovation
				p	q	experience in architectural design for new construction or for renovation
153167 0042/2017	ra	001	design for renovation or retrofit	o	q	experience in architectural design for new construction or for renovation
				p	q	experience in architectural design for new construction or for renovation
154046 0004/2017	rq	001	design for accessibility	p	q	experience in design for accessibility
154618 0015/2017	ra	001	design for accessibility	o	q	experience with similar/compatible/relevant service
				p	q	architect or engineer working for the bidder
155008 0038/2017	ra	003	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		020	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
155124 0003/2017	rdc	001	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service

PROCEDURE		ITEM		CRITERION		
158275 0014/2017	ra	003	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		004	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
158377 0040/2017	ra	001	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
		002	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
		003	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
		004	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
		005	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
		006	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
158720 0004/2017	ra	001	design for new construction	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
160036 0025/2017	ra	001	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
160066 0013/2017	ra	013	landscaping and site design	o	q	experience with similar/compatible/relevant service
				p	q	experience in landscape design
		014	landscaping "as built" drawings	o	q	experience with similar/compatible/relevant service
				p	q	experience in landscape design
160078 0001/2017	rq	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
170010 0006/2017	ra	001	any type of design - consulting	p	q	experience in architectural design
170018 0003/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
170088 0001/2017	rq	001	design for accessibility	o	e	experience in design for accessibility
				p	e	postgraduate studies or specialization
					q	experience in architectural design
170131 0022/2017	ra	001	design for accessibility	o	q	experience in design for accessibility
170134 0006/2017	ra	001	design for accessibility	o	q	experience in design for accessibility
				p	q	experience in design for accessibility
170217 0007/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
170217 0008/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
170217 0009/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
170217 0011/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
170388 0001/2017	ra	001	design for new construction	o	q	experience in architectural design
				p	q	experience in architectural design
170516 0005/2017	ra	001	design for renovation or retrofit	o	q	experience in architectural design for new construction
				p	q	experience in architectural design
170516 0008/2017	ra	001	design for renovation or retrofit	o	q	experience in architectural design for new construction
				p	q	experience in architectural design
		002	design for renovation or retrofit	o	q	experience in architectural design for new construction
				p	q	experience in architectural design
179085 0098/2017	ra	001	any type of design - outsourced	o	q	experience in outsourcing
179085 0112/2017	ra	001	any type of design - outsourced	p	q	experience with similar/compatible/relevant service
200035 0012/2017	ra	001	design for accessibility	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
200043 0017/2017	ra	001	design for accessibility	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
200108 0008/2017	ra	001	design for renovation or retrofit	o	q	experience in architectural design for renovation
				p	q	experience in architectural design for renovation
200121 0009/2017	ra	001	design for renovation or retrofit	o	q	experience in architectural design
				p	q	experience in architectural design
200207 0013/2017	ra	001	design for accessibility	p	q	experience in architectural design for new construction or for renovation
250025 0007/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design
254445 0215/2017	ra	001	design for renovation or retrofit	o	q	specialized experience
				p	q	specialized experience
254445 0291/2017	ra	001	design for renovation or retrofit	o	q	specialized experience
				p	q	specialized experience
255026 0006/2017	ra	001	design for accessibility	o	q	experience with similar/compatible/relevant service
				p	q	architect or engineer working for the bidder
343003 0002/2017	ot	001	design for restoration	o	q	experience with similar/compatible/relevant service
				p	q	experience in architectural design for restoration
343011 0003/2017	rq	001	design for restoration	o	e	experience with similar/compatible/relevant service knowledge of the object organizational structure and resources proposed approach
					q	experience in architectural design for restoration
				p	e	experience with similar/compatible/relevant service time since graduation
343034 0003/2017	ra	001	design for restoration	o	q	experience in architectural design for restoration
				p	q	experience in architectural design for restoration
343036 0002/2017	rq	001	design for restoration	p	q	experience in architectural design for restoration postgraduate studies or specialization
380941 0007/2017	ra	001	design for renovation or retrofit	o	q	experience in architectural design
				p	q	experience in architectural design
		002	design for renovation or retrofit	o	q	experience in architectural design
				p	q	experience in architectural design
		003	design for renovation or retrofit	o	q	experience in architectural design

PROCEDURE		ITEM		CRITERION		
				p	q	experience in architectural design
		004	design for renovation or retrofit	o	q	experience in architectural design
				p	q	experience in architectural design
389086 0006/2017	ra	001	any type of design - consulting	p	q	experience with similar/compatible/relevant service
400066 0001/2017	rp	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
420001 0001/2017	rp	001	design for renovation or retrofit	p	q	experience with similar/compatible/relevant service
443001 0001/2017	rp	001	interior design	o	q	experience with similar/compatible/relevant service
530001 0016/2017	ra	016	any type of design - outsourced	o	q	experience in outsourcing
765701 0007/2017	ra	001	design for renovation or retrofit	o	q	experience in design of parking lots
				p	q	experience with similar/compatible/relevant service
765705 0001/2018	rq	001	design for renovation or retrofit	o	q	experience in architectural design for renovation
				p	q	experience in architectural design
787700 0006/2016	ra	001	design for new construction	p	q	specialized experience
925138 0028/2017	ra	001	any type of design - outsourced	o	q	experience in outsourcing
				p	q	experience with similar/compatible/relevant service
925152 0002/2017	rq	001	design for new construction	p	q	experience with similar/compatible/relevant service
925387 0002/2017	ot	001	street and transit design	o	e	experience with similar/compatible/relevant service knowledge of the object proposed approach
					q	experience with similar/compatible/relevant service
				p	e	specialized experience
925856 0049/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
925856 0147/2017	ra	001	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
925942 0059/2017	ra	006	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		007	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		008	design for renovation or retrofit	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		009	landscaping and site design	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		010	landscaping and site design	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		012	interior design	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		013	acoustics design	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
		014	design for accessibility	o	q	experience with similar/compatible/relevant service
				p	q	experience with similar/compatible/relevant service
926066 0006/2017	ra	001	street and transit design	o	q	experience with similar/compatible/relevant service
926195 0026/2017	ra	001	design for resuming construction	o	q	experience in architectural design
				p	q	experience in architectural design

9.1 Transparency

9.1.1 Availability of documents

Preliminarily, I would like to comment on the collecting of data available in the governmental platforms. Considering that I obtained information from all 116 selected procedures, we could argue that the level of transparency seems to be high. We must remind, though, that according to regulations, all documents concerning procurement procedures made public by means of *Comprasnet* should be available in that system. Nevertheless, from the 116 procedures I initially selected, only 89 procedures had all documents available in *Comprasnet*, as shown in Table 7. This figure may indicate negligence or lack of transparency from the procuring entities concerned, which corroborates a previous study suggesting that the Brazilian government should have more

consideration for the implementation of its own transparency regulations (Michener, Contreras, and Niskier 2018, 625). Yet, one would need to compare these figures with figures from other types of services (not architectural services) to evaluate this result in a broader context, which is outside the scope of this research.

The API and *Painel de Preços* proved way less useful than what I initially expected. During this research, the API was offline from November 2018 until January 2019. Furthermore, downloaded data was often useless due to bad formatting, as reviewed in Section 8.4.1.1. *Painel de Preços*, supposedly a user-friendly system intended to improve transparency, was not reliable at all for retrieving data relevant to this study. This suggests that this tool should be used with a lot of precautions for collecting information on governmental procurement, including information on contracted values.

9.1.2 Information on protests

Because not all documents were available in *Comprasnet*, it was not possible to retrieve complete information regarding protests. No information on protests was available for 10 procedures out of 73 analyzed. On Table 19 I show the number of procedures lacking this information. All of them regard solicitation methods from Law 8.666, which are not carried out in *Comprasnet*. Given that there are only 17 procedures of this kind in this study (Section 9.2.1), almost 60% of them lacked this information.

Table 19 - Number of procedures lacking information on protests

solicitation method	number of procedures lacking information
open tendering	2
request for proposals	3
request for quotations	5
total	**10**

9.1.3 Collecting RDC documents

As mentioned earlier, all information from RDC is available in *Comprasnet*, since procedures by this solicitation method are not only made public by that platform, but they are also carried out by it. Nevertheless, I must underline the difficulty to get data from RDC

procedures. Information may be available, but the queries for RDC are the least user-friendly in *Comprasnet*, as I commented in Section 8.4.2.3.

9.1.4 Practices on transparency

Comprasnet provides complete access to procurement documents, especially for reverse auctions. *Comprasnet* may be regarded as a complex system, but it would be impossible to devise a simple system for a complex activity such as public procurement in Brazil. Two issues, however, must be mentioned concerning *Comprasnet*. First, procurement officials often do not feed *Comprasnet* with information regarding procedures that are not carried out in the system – which means procedures under Law 8.666. Hence it is necessary to look for information in the Transparency pages, or to request information directly to procuring entities. This problem is not related to the design of the system, but instead related to procurement officials' negligence coupled with low enforcement. Second, searching for documents regarding RDC is highly time-consuming. It should be simple to include a search tool by procedure number or by UASG, which would expedite this task. This problem stems from a bad system design.

Retrieving information by other channels was less fruitful. The API is not reliable and demands some knowledge on databases for accessing data. *Painel de Preços*, which is supposed to be user-friendly, did not provide reliable information. We could thus argue that, in regard to transparency, procurement officials' practices partly respect intended policy, for remaining difficulties to access information render the system not effective.

9.2 Solicitation methods

In this section I will deal with the question concerning *what solicitation methods are used for procuring architectural services*. Each subject matter is procured by means of one method; therefore, this question regards the 73 procedures that are relevant in this study. The choice of method depends on how the subject matter of procurement is classified and on its estimated value. In the following sections, I present which methods and how often

they were employed, the type of awarding process, the use of the formalized price system (SRP) and the values of procedures.

9.2.1 Solicitation methods and classification of services

In Table 20 I list the solicitation methods employed in the 73 procedures analyzed, the corresponding regulating law and the number of procedures for each method. None of the procedures analyzed employed prize competitions. In contrast, almost three-fourths of the procedures (54 out of 73) were carried out by means of reverse auctions.

Table 20 - Number of procedures by solicitation method and corresponding law

Solicitation method	Regulating law	Number of procedures	% Total
open tendering	Law 8.666	4	5%
RDC	Law 12.462	2	3%
request for proposals	Law 8.666	3	4%
request for quotations	Law 8.666	10	14%
reverse auction	Law 10.520	54	74%
Total		73	100%

Brazilian regulations provide formal discretion for the choice of solicitation method. This choice depends on whether services procured are classified as: (a) common services, (b) services of a predominantly intellectual nature, (c) specialized technical professional services, or (d) services in the scope of an RDC action. The figures above reveal that procurement officials usually classify architectural services as common services, since only common services can be procured by reverse auctions.

It could be defensible to consider services such as the redesign of a parking lot as a common service, as it was the case for reverse auction 090003 0031/2017. But in some cases, the decision to classify the service as common service contradicts the solicitation document itself. For instance, in procedure 250025 0007/2017, the solicitation document (p.39) states that the services procured are complex and peculiar[53], which goes against

[53] In the original: "*Tendo em vista a complexidade/peculiaridade do objeto e as inúmeras patologias existentes, para o correto dimensionamento e elaboração de sua proposta, o licitante DEVERÁ realizar vistoria nas instalações do local de execução dos serviços*".

the notion of common service. Another example is procedure 200121 0009/2017 featuring the same contradiction. It was classified as common service, but in the solicitation document (p.53) it is consigned that the services procured are specialized services[54]. Procedure 158720 0004/2017 is also procured as common service, but their items regard architectural and engineering design services of medium complexity[55] (solicitation document, p. 4). This procedure is a conspicuous case of a reverse auction because its solicitation document informs that it is an RDC. Regardless, it was not carried out in the RDC platform in *Comprasnet*, but rather in the reverse auction platform. Surprisingly, no objection was presented concerning this issue. I will further discuss this case in Section 9.9.2.

Solicitation methods other than reverse auctions can be carried out using different awarding processes. Therefore, I will discuss them in the next section, dedicated to this matter.

9.2.2 Awarding process

In Table 21 I break down the number of procedures by solicitation method, discriminating the figures by awarding process employed. From the three possible awarding processes – price-based, value-based and quality-based – only the first two were employed. Since there was no prize competition, the absence of quality-based procedures was expected.

Only two procedures employed RDC, and both were price-based. As reviewed in Section 6.2.4, architectural services in RDC actions can be procured by means of price-based, quality-based or value-based procedures. Nevertheless, in these two RDC procedures, architectural services were procured alongside engineering services in the same item. I will approach this issue in Section 9.3.1.

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[54] In the original: "*Considerando que projetos de engenharia e arquitetura são serviços especializados e que as profissões são reguladas por entidades de classe, buscou-se junto ao IAB (...) informações, subsídios e parâmetros para estimar os valores dos honorários profissionais para elaboração de projetos arquitetônicos*".

[55] In the original: "*prestação de serviços técnicos de elaboração de projetos básico e executivo de arquitetura e engenharia de média complexidade, pelo regime diferenciado de contratação, necessários às construções, reformas e ampliações de diversas unidades da Universidade Federal do Sul da Bahia*".

It is not surprising that there are only few RDC procedures for architectural services. RDC was devised primarily for integrated bids (DB project delivery method, discussed in Section 3.4), which are outside the scope of this research. Moreover, it can only be used in specific areas of the administration, such as prisons and hospitals. Finally, it is a relatively new method, so procurement officials may have not yet embraced it, although it is regarded as less complex than the solicitation methods established by Law 8.666.

Solicitation methods established by Law 8.666 were used in only 17 out of 73 procedures under study – less than 25% of the total (Table 20). Amongst these 17, only six were procured by means of value-based awarding processes, as displayed on Table 21.

The numbers concerning requests for proposals were rather surprising. Given that requests for proposals are used for less expensive services, I expected they would outnumber open tendering and request for quotations, but that was not the case. Only three procedures employed requests for proposals, all of them using price-based awarding process. It is possible that procurement officials prefer to employ reverse auctions when procuring services that are not very expensive, since they are a much simpler method than a request for proposals.

Table 21 - Number of procedures by solicitation method, classified by awarding process.

Solicitation method	price-based	value-based	Total
open tendering	2	2	4
RDC	2		2
request for proposals	3		3
request for quotations	6	3	9
request for quotations SRP		1	1
reverse auction	49		49
reverse auction SRP	5		5
Total	**67**	**6**	**73**

The number of requests for quotations amounts to ten, one of them regarding a formalized price system (SRP), which I will discuss in the following section. Four out of ten requests for quotations (including the one regarding SRP) employed value-based awarding process. Open tendering was used only in four procedures, two of them being value-based.

9.2.3 Formalized price system – SRP (*Sistema de registro de preços*)

In the initial design of this study, I had not included the issue of SRP, since it is not supposed to be employed for procurement of services. Nevertheless, I later had to take on SRP in my inquiry, for I realized that six procedures included it: five reverse auctions and one request for quotations, as it stands out in Table 21. For instance, reverse auction 158275 0014/2017 concerned 18 items of architectural and engineering services, for a total estimated value of over R$ 5 million. Despite not including any off-the-shelf good (which is the aim of SRP procedures), this procedure was awarded by means of SRP. Another example is reverse auction 158720 0004/2017, already mentioned in Section 9.2.1. This is one of the highest value procedures in this study, for an estimated value of over R$ 11 million. It comprises only architectural and engineering services, yet it was also awarded by means of SRP.

9.2.4 Value of procedures

I used the Analysis ToolPak in MS Excel for calculating some descriptive statistics concerning estimated values of the 73 procedures under study. Results are displayed on Table 22. The mean value is around R$ 1,1 million. However, the standard deviation is more than 2,3 times bigger than the mean, and the median is more than seven times smaller than the mean, indicating that this distribution is not a normal distribution.

Table 22 - Descriptive statistics - estimated value

Mean	1.087.294,49
Median	149.193,07
Mode	2.982.746,52
Standard deviation	2.578.603,18
Minimum	19.396,60
Maximum	13.152.300,53
Count	73,00

For a better understanding of how values are distributed, I produced a histogram showing the number of procedures by their estimated value, shown in Figure 23. Most of the procedures concern estimated values lower than R$ 150 thousand. The relatively high

mean is due to a small number of very high value procedures – six procedures over R$ 3,5 million.

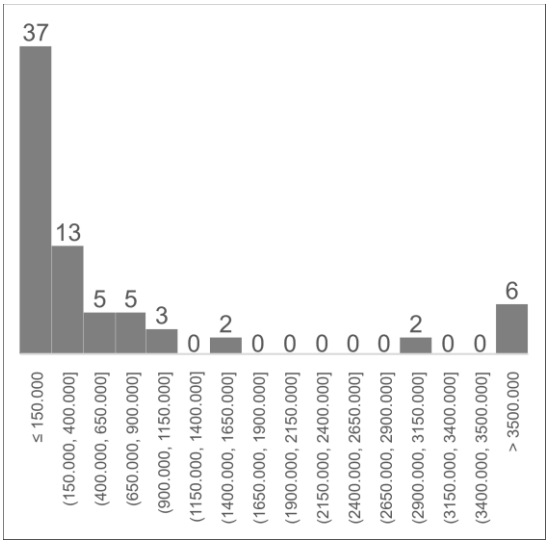

Figure 23 - Frequency of procedures by estimated value

As mentioned in Section 9.2.2, only seventeen procedures were carried out by solicitation methods established by Law 8.666. It could be argued that, at least for these procedures, procurement officials correctly classified architectural services as services of predominantly intellectual nature or specialized technical professional services. However, when we analyze estimated values for these services, a different portrait can be drawn. In Figure 24 I present graphically each procedure according to their estimated value (Y-axis) and their solicitation method, discriminating those that used SRP (X-axis). I also show two thresholds: R$ 650 thousand and R$ 80 thousand. According to Law 8.666, services above R$ 650 thousand should be procured by means of open tendering, while services above R$ 80 thousand should be procured by means of request for quotations or open tendering.

Figure 24 shows that one request for quotations and one request for quotations with SRP were above R$ 650 thousand (lines 7 and 8 on the X-axis). Furthermore, two requests for proposals are above R$ 80 thousand (line 3 on the X-axis). In these four cases, we can conclude that procurement officials did not classify architectural services as services of predominantly intellectual nature or specialized technical professional services, but rather

as *construction and engineering services*, for which thresholds are higher, as reviewed in Section 6.2.2.

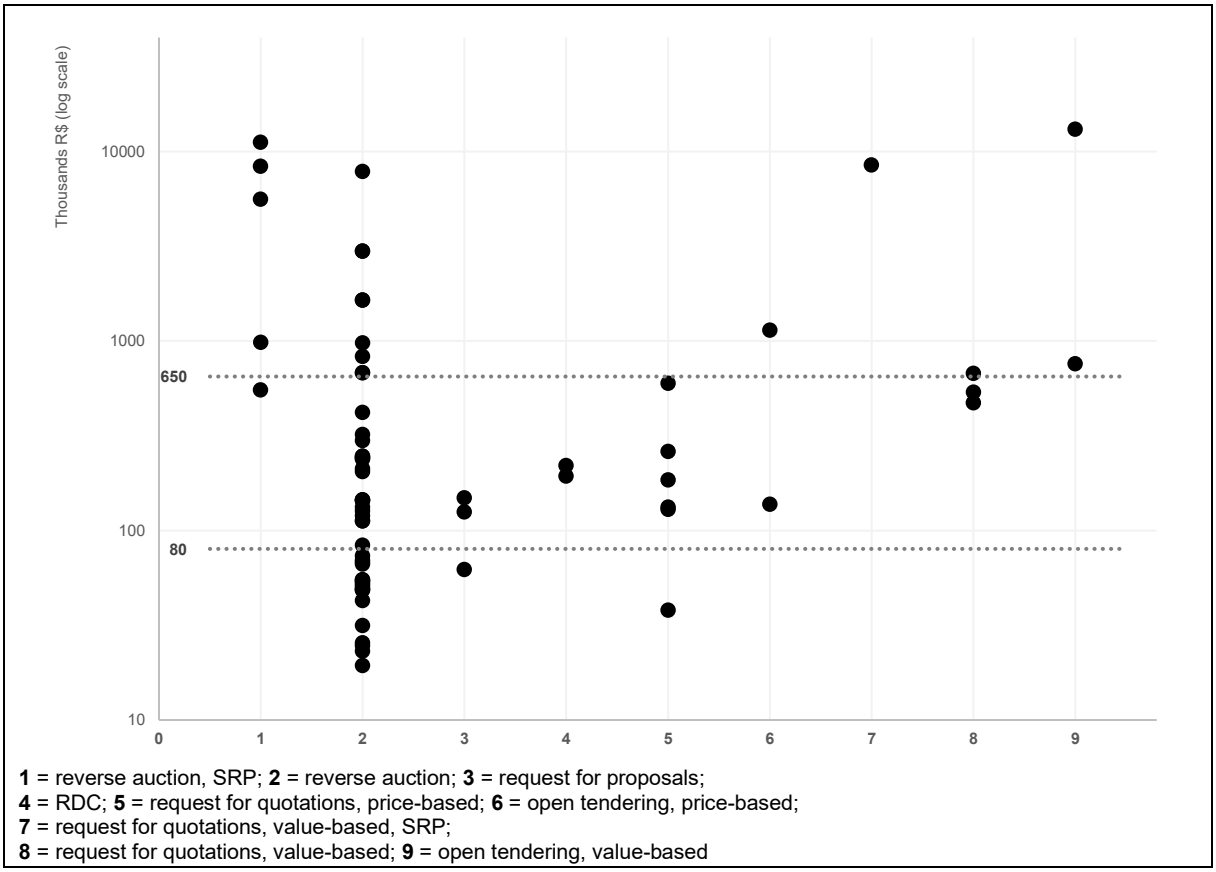

Figure 24 - Values by solicitation method

Still in Figure 24, one sees that only two requests for quotations and two open tendering are value-based and within the corresponding value threshold for services (lines 8 and 9 on the X-axis). Thus, these are the only four instances of procedures including architectural services for which procurement officials opted for value-based awarding processes within the threshold values for services established by Law 8.666.

9.2.5 Practices concerning solicitation methods

In Section 7.1, I mentioned that procurement officials hold discretion to classify architectural services as common services, or as services of predominantly intellectual nature, or specialized technical professional services, since regulations provide vague

concepts for these notions. Results show that most of the time architectural services are categorized as common services, given the majority of procedures carried out by reverse auctions. As discussed in Section 7.1.1, this classification is not consensual. It can be contended that all architectural services require specialized knowledge, and therefore they should not be procured by reverse auctions. For a deeper analysis on the matter, we need to scrutinize services procured, which I will do in the following sections.

Even so, we can reach at least one conclusion in this regard from the review of solicitation methods. A problem surely arises when procurement officials use reverse auctions for procuring services that they acknowledge as services that require specialized knowledge, as mentioned in Section 9.2.1. That would require them to categorize such services as services of predominantly intellectual nature and employ solicitation methods established by Law 8.666. By using reverse auctions for specialized services, procurement officials extrapolated their operational discretion. In other words, this practice can be considered arbitrary.

In what concerns the use of SRP for procurement of architectural services, this practice can also be considered arbitrary. SRP is not supposed to be employed in procurement of services, as seen on Section 6.2.5.1. Furthermore, SRP does not require precise information regarding the quantity of services procured. The absence of such information goes against IN-5, as mentioned in Section 6.2.5.2. This irregularity notwithstanding, there was no protest concerning the use of SRP.

The fact that an RDC could be carried out in a different platform should be a warning sign concerning the lack of supervision and enforcement on what is going on in *Comprasnet*. The issue of transparency is again at play here, for a search in the RDC platform would not yield all RDC procedures.

Also noteworthy are the four procedures bearing values above the threshold for the respective solicitation method employed, as reviewed in Section 9.2.4. This practice goes against the intended policy discussed in Section 7.1.5 and therefore it can be considered arbitrary.

9.3 Services procured

In this section I will answer the question regarding *what services are procured*. I remind that in this inquiry I only focus on services that are exclusive for architects, as mentioned in Section 6.2.9.2.

For this analysis, I will unveil how procurement officials classified these services, and how I would classify them in light of the Brazilian regulations. For a deeper understanding of these services, I will also deal with their values and the type of building they refer to. Nevertheless, I will take on this analysis by discussing one issue regarding how these services are procured – either as a single service in an item or bundled with other services in the same item. This issue has an impact on which solicitation methods can be employed.

9.3.1 Bundling architectural and engineering services

In my initial design for this study, I had taken for granted that procurement officials would neatly observe the classification of services from the CATSER table, and therefore finding information on architectural services would be straightforward. That was not the case. As displayed on Table 23, from the 104 selected items, 66% of them included architectural services and engineering services in the same item. Only 35 items regarded architectural services exclusively.

Table 23 - Bundled services

Services	Number of items	%
architecture and engineering	69	66%
architecture only	35	34%
Total	104	100%

Bundling architectural and engineering services in the same item goes against procurement regulations, namely IN-5, as seen in Section 6.2.5.2. When different services are bundled in the same item, at least one of them will be incorrectly classified. Furthermore, it is more difficult to know how much of each service is being procured, and ultimately it will not be possible to know how much the administration spends with each type of service. For

instance, reverse auction 160036 0025/2017 included only one item, classified as *78 – studies and projects in architecture* according to the CATSER table. Nevertheless, its reference terms[56] inform that, in reality, the estimated value of architectural services was less than 3% of the total value of this procedure, the remaining services regarding engineering services. Another example is reverse auction 200108 0008/2017, comprising one item also classified as *78 – studies and projects in architecture.* Actually, this item bundled architectural and engineering services, and the value of architectural services was only 18% of the total estimated value[57]. Hence information concerning public procurement expenditures on architectural services does not accurately portray what it is supposed to. The same can be said for engineering services, for many architectural services are classified as such, as I will review below.

9.3.2 Type of service as classified by procurement officials

In this section I review how procurement officials classified each service following the CATSER table. I show the number of items procured according to the way they were classified in Table 24. Types of services from CATSER in Portuguese and their translation are available in Appendix 14.

Table 24 shows that only 43 items were classified under one of the three categories dedicated to architecture: one under *Consulting and advisory services in architecture*, 32 under *Studies and projects in architecture*, and ten under *Studies and projects in urban planning, landscape architecture and architecture*. Given that the 104 items selected include at least one service exclusive for architects, we can conclude that 62 out of these 104 items (60%) are not classified correctly as architectural services. It is worth mentioning that 51 out of 104 items were classified as engineering services: 44 in the category *Design and analysis of engineering projects* and seven in the category *Engineering services*. These numbers support the argument that information available in *Comprasnet* concerning architectural services do not represent the complete set of such services. Since procurement

[56] Source: Appendix 3 of the reference terms.
[57] Source: Appendix 3 of the reference terms.

officials are expected to search for guidance in past procurement procedures, available information in *Comprasnet* will be incomplete if they search by CATSER codes.

Table 24 - Classification of items according to the CATSER table

Informed type of service from CATSER	Total
Administrative support services	1
Building maintenance or renovation	1
Consulting and advisory services in architecture	1
Consulting and advisory services in engineering	1
Design and analysis of engineering projects	44
Engineering services	7
Management or supervision of project or construction of civil works	1
Structural design of civil works	1
Studies and projects in architecture	32
Studies and projects in urban planning, landscape architecture and architecture	10
Studies and projects of building facilities	4
Studies and projects of roads	1
Total	**104**

A root of this problem is that procurement officials often bundle different services in the same item, as described in the previous section, and thus at least one item cannot be correctly classified. However, duplicates in the CATSER table may worsen the issue. For instance, categories *Studies and projects in architecture* and *Studies and projects in urban planning, landscape architecture and architecture* represent the same type of item, thus one of them could be eliminated.

The Brazilian government has made some isolated efforts to improve uniformity in the CATSER table, but not yet in the codes regarding architectural and engineering services (Brasil 2018a, 2018b). It also kicked off a campaign, named *Item certo* (correct item), to raise awareness on the problem of incorrect classification (Brasil 2019b). Given the pervasiveness of this issue in the procedures analyzed here, it would be advisable to undertake a cleanup in all codes regarding architectural and engineering services.

9.3.3 Type of assignment and phases of design

As discussed above, I could not trust the classification informed by procurement officials regarding architectural services, so I coded each service procured according to the type of assignment: whether they concerned design services or other types of services. I also coded them according to the phase of design. On Table 25 I show the number of items by type of assignment (columns) and phase of design (rows). Obviously, phase of design is only applicable for architectural design services.

Concerning the type of assignment, results reveal that almost 90% (92 out of 104) of services procured are *architectural design* services. *Outsourced workforce* was procured eight times and *consulting (evaluation or supervision)* follows with three instances. These numbers indicate that most of the time procuring entities procure architectural services for producing specific projects. But some procuring entities also procure contractual jobs, probably because they do not hold enough architects amongst their regular employees.

Table 25 - Nature of services and design phases

Phase	architectural design	consulting (evaluation or supervision)	drawing, surveying or electronic modeling	outsourced workforce	Total
all design phases	3				3
basic design	29				29
basic design and execution design	11				11
basic design and legal design	5				5
execution design	32				32
execution design and legal design	1				1
pre-design	4				4
pre-design and execution design	3				3
pre-design and legal design	1				1
preliminary study	2				2
preliminary study, basic design and execution design	1				1
N/A		3	1	8	12
Total	**92**	**3**	**1**	**8**	**104**

The one service related to *drawing, surveying or electronic modeling* is a service for *landscaping "as built" drawings*. As mentioned in Section 8.4.3.3, this type of service is

considered exclusive for architects. This item is from procedure 160066 0013/2017, which comprises 21 items related to the project of a school for the Brazilian army.

In what concerns the phase of design for *architectural design* services, *execution design* and *basic design* are the most frequent categories, with 32 and 29 items, respectively. When analyzed with other categories, at least one of these two phases appears in almost every item, except four items concerning only *pre-design* and two items concerning only *preliminary study*. *Basic design* and *execution design* are the services leading to the production of basic projects and execution projects, which are the minimum necessary for procurement of construction (as reviewed in Section 6.2.3), so it is not surprising that these categories often appear.

More unexpected is the low number of items concerning the *pre-design* phase. Since basic design presupposes that a pre-design has been produced, we may speculate that most pre-design is produced in-house by architects working for the procuring entities.

9.3.4 Type of service – Resolution 21 Art. 2

The classification into types of assignment and phases of design reviewed above provides a preliminary portrait of services procured. For a better understanding of what these services are, I coded each item procured according to the type of architectural service established by Resolution 21 Art. 3. In Table 26 I show a synthesis of the total number of items, as well as their estimated values, by type of service.

Table 26 - Items and values by type of service

Type of service	Number of items	Est. value total (R$)	Est. value (%)
acoustics design	2	761.500,00	1,46%
any type of design - consulting	3	216.290,04	0,41%
any type of design - outsourced	8	10.418.815,59	19,95%
design for accessibility	12	1.313.414,32	2,51%
interior design	2	148.952,50	0,29%
landscaping "as built" drawings	1	4.254,59	0,01%
landscaping and site design	6	475.205,52	0,91%
lighting design	1	450.000,00	0,86%

Type of service	Number of items	Est. value total (R$)	Est. value (%)
design for new construction	14	15.231.452,22	29,16%
design for renovation or retrofit	44	6.769.150,59	12,96%
design for restoration	5	1.353.828,63	2,59%
design for resuming construction	4	1.784.705,77	3,42%
street and transit design	2	13.297.997,55	25,46%
Total	**104**	**52.225.567,32**	100,00%

When we analyze estimated values, *design for new construction* is the most important type of service, representing 29% of the total value, followed by categories *street and transit design*, *any type of design – outsourced* and *design for renovation or retrofit*. Together, these four types of services represent 88% of the total estimated value. I will dig further into the matter of values in Section 9.3.6.

When we analyze number of items, a different portrait is drawn. In Figure 25 I classify each type of service by the number of items procured. The most frequent is *design for renovation or retrofit* – 42% of the total (44 out of 104). This figure is more than three times bigger than the second most often procured type of project, namely *design for new construction*. These numbers may reflect the need to update an ageing building stock.

I would also like to highlight two other features from Figure 25. The first is the relatively high number of items concerning *design for accessibility*. This may be an outcome of the adoption of Decree 5.296, in 2004. Its Art. 19 establishes that all existing public buildings must be or become accessible, complying with Brazilian accessibility standards (Brasil 2004). The second are services regarding *design for resuming construction*. Resolution 21 did not foresee this type of service. It can be regarded as an indication of failed previous public procurement for construction or renovation.

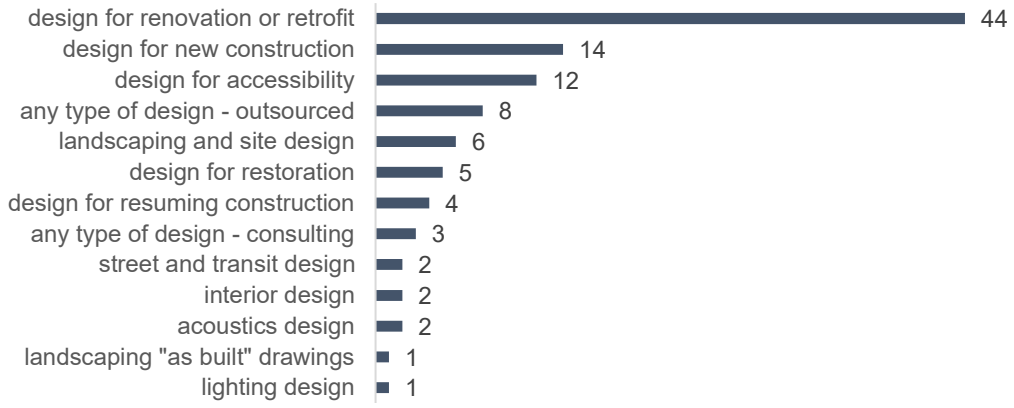

Figure 25 - Number of items by type of service

9.3.5 Type of service – type of buildings

In Table 27 I show results regarding the number of items by type of building (rows), classified by type of service (columns). Almost all items concern buildings that serve public purposes, and thus one can expect them to be funded by governments, such as hospitals and schools (Valverde, Johns, and Raso 2018, 118). One exception is a slaughterhouse. This item – 158377 0040/2017 item 005 – is part of the renovation of a rural school that belongs to the Federal government, so it can also be considered as serving public purposes.

As one would expect from governmental procuring entities, the most common type of building is *office*, representing 36% of the total of items. Eleven items are not related to any specific type of building. They concern consulting or outsourced services, which I did not classify as design services, as mentioned in Section 9.3.3.

Considering both type of service and type of building, the items most often procured are *design for renovation of offices* (22 items), followed by *design for accessibility of offices* (8 items).

Table 27 - Items by type of building and type of service

Service	acoustics design	any type of design - consulting	any type of design - outsourced	design for accessibility	design for new construction	design for renovation or retrofit	design for restoration	design for resuming construction	interior design	landscaping "as built" drawings	landscaping and site design	lighting design	street and transit design	**total**
external area										1	6			**7**
garage					1									**1**
heritage building							5							**5**
hospital				1	3	7								**11**
industrial, workshop or warehouse					1	5								**6**
kitchen/dining hall						4								**4**
laboratory						2								**2**
library						1								**1**
not applicable		3	8											**11**
office	1			8	2	22		3	2					**38**
parking lot				1										**1**
police station						1								**1**
residential						1								**1**
school/university	1			2	7							1		**11**
slaughterhouse						1								**1**
theatre								1						**1**
urban public spaces													2	**2**
total	**2**	**3**	**8**	**12**	**14**	**44**	**5**	**4**	**2**	**1**	**6**	**1**	**2**	**104**

It is worth mentioning the five items concerning *design for restoration of heritage buildings*. They relate to procedures carried out by IPHAN – Instituto do Patrimônio Histórico e Artístico Nacional (National Institute of Historic and Artistic Heritage). At their face value, one would reckon that these items should be considered as specialized technical professional services, since restoration presupposes specialized knowledge. This understanding is corroborated by IPHAN itself (Gomide, Silva, and Braga 2005, 17). Nevertheless, one of these five items was procured as a reverse auction (343034 0003/2017). It is not clear why procurement officials considered it a common

service in this case, for this item is similar to the other four, and its estimated price is above the average of the estimated price for this type of service[58].

9.3.6 Values of services

At first, I was interested in the values of items and procedures only as a means of analyzing compliance with solicitation methods thresholds, as reviewed in Section 9.2.4. I did not expect that I would find significant discrepancies between estimated values and contracted values. Moreover, since in most cases architectural and engineering services are bundled in the same item, values of items do not provide precise data on values of architectural services. However, when analyzing these figures, I realized that the difference between estimated and contracted values could be large, and this difference may hint problems in procurement procedures.

To understand this issue, I calculated the difference, in percentage, between estimated and contracted values for each item procured (*difference = contracted value ÷ estimated value*). Then, using the Analysis ToolPak of Microsoft Excel, I calculated some descriptive statistics concerning the difference, shown in Table 28. The mean difference is approximately 55%. This means that, in average, contracts including architectural services are awarded for a value corresponding to only 55% of their estimated value.

Table 28 - Descriptive statistics for differences between estimated and contracted values

Mean	54,95%
Standard deviation	21,95%
Minimum	7,13%
Maximum	99,79%
Quantity[59]	98

For a better grasp of this discrepancy, I depict estimated values and contracted values for each item in Figure 26. From this picture it is possible to see that the discrepancy is not uniform, and that it can take extreme values in some items. For instance, procedure 155008

[58] Mean estimated value of the five items = R$ 270.765,73; estimated value of 343034 0003/2017 = R$ 299.300,00

[59] This figure excludes procedures that were not concluded.

0038/2017 item 003 (identified in the figure) was awarded for a value corresponding to only 7,13% of its estimated value. This item could be considered an outlier regarding this difference, but there are nine other items, all of them procured by means of reverse auctions, for which the contracted value was less than 25% of the estimated value, as displayed in Table 29. I provide the complete list of items and their values in Appendix 15.

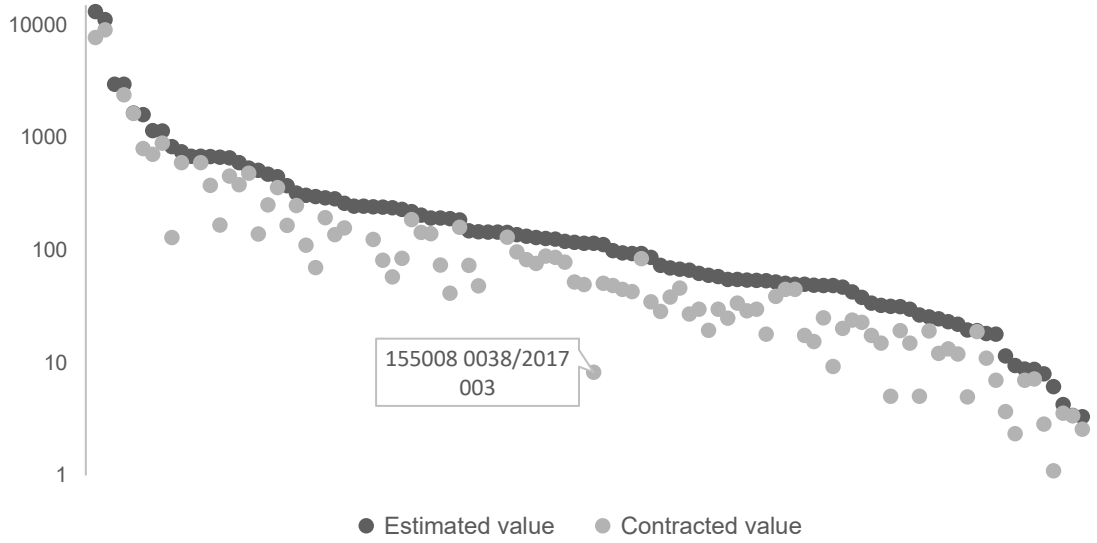

Figure 26 - Estimated and contracted values (in R$ thousand – log scale)

This difference could be regarded as beneficial savings for procuring entities. However, it is counterintuitive that a service which was estimated in R$ 115.665,00 could be executed for R$ 8.250,00, as is the case for 155008 0038/2017 item 003. Extreme differences between estimated values and contracted values point to two hypotheses. The first is that estimations are not being properly done. According to current regulations, procurement officials are supposed to use *Painel de preços* as the primary source of information for estimating values (MPOG 2014, Art. 2º) and, as mentioned in Section 9.1.1, information from this source proved very unreliable. The second is that bidders may offer a very low value, expecting that during the execution of the service they will be able to get a contract amendment, which in turn would increase the amount they are paid for the service (Castro and Lopes 2004, 223). This matter would deserve further scrutiny. Indeed, scholars have

noticed the need of research on the matter of cost estimations in public procurement (Johnston and Romzek 2012, 415).

Table 29 - Items with great discrepancy between estimated and contracted values

Item	(A) Estimated value	(B) Contracted value	(B)/(A)
155008 0038/2017 003	115.665,00	8.250,00	7,1%
787700 0006/2016 001	832.442,15	130.000,00	15,6%
153047 0019/2017 002	31.750,00	5.050,00	15,9%
152663 0015/2017 001	6.166,67	1.099,99	17,8%
153047 0019/2017 001	26.650,00	5.050,00	18,9%
090003 0031/2017 001	48.584,53	9.300,00	19,1%
155008 0038/2017 020	190.450,00	41.550,00	21,8%
343034 0003/2017 001	299.300,00	70.000,00	23,4%
170388 0001/2017 001	238.583,01	58.065,40	24,3%
152663 0015/2017 025	9.500,00	2.352,99	24,8%

9.3.7 Practices concerning services procured

As reviewed above, issues related to services procured do not concern the nature of services, but rather the way they are procured. Here I assess practices that do not seem to conform to intended policies.

Bundling different services in the same item is an arbitrary practice, since it contradicts IN-5 (MP 2017b Appendix III item 3.8). If procurement officials want to assure the same bidder will win the contract for different but interrelated items, it is possible to include these items under a group of items, which will then be procured together, as reviewed in Section 6.2.5.2. Therefore, bundling different services in the same item is not only against formal discretion but also unnecessary for assuring they will be procured together.

The bundling of services has a negative impact in the quality of information. Due to this practice, at least one service in each procedure will be incorrectly classified according to the CATSER table. Most items including services exclusive for architects were not classified as such, and many engineering services were classified as architectural services.

I presented a portrait of types of services procured, which I deem closer to reality, on Section 9.3.4. For this classification I employed the types of services established by Resolution 21 Art. 3. This could be a starting point for a revision of the CATSER table in what concerns architectural services.

The lack of uniformity in how services are classified has an impact in how easy information on these procedures can be retrieved. Since I could not rely on how items were classified, I had to search by means of different keywords. The search by keywords generated long lists of procedures, and I had to carefully read the information on the subject matter of each procedure to filter out those that did not concern architectural services, as I described in Section 8.4.1. As Professor Onora O'Neill (2013) argues, for effective transparency governments must do more than just render data available; data must also be easy to access and understandable. Given that the first goal of Brazilian regulations in public procurement is to assure transparency (Brasil 2018c), it would be a good idea to establish some control on how items are classified.

The issue regarding the difference between estimated values and contracted values is not the focus of this inquiry. Nevertheless, it corroborates the gambling character of reverse auctions and it hints that there might be room for improvement in the way procurement officials estimate the value of architectural services.

In what concerns the types of assignment and the phases of design, as reviewed in Section 9.3.3, it has been shown that most architectural services are design services, for which the final product will be a project. Nevertheless, very few services for *pre-design* were procured. This has a relation to the fact that prize competition as solicitation method was not used in any procurement. At first sight, one could decry this situation, since Law 8.666 explicitly states that this solicitation method should be favoured for procurement of projects. But the literature on prize competitions for architectural services suggests that the haphazard use of this method should be avoided. Prize competitions would be better employed when innovative solutions are necessary, especially for new buildings. In this regard, prize competitions would be suited for the *pre-design* phase of the service, and not

for *basic design* and less still for *execution design*. Hence it is not reasonable to blame procurement officials for not using prize competitions. However, this does not warrant the indiscriminate use of reverse auctions for architectural services reviewed in Section 9.2.1. Classifying architectural services as common services remains a questionable practice. Since most of the services procured concern design services, procurement officials would be expected to employ open tendering, request for proposals or request for quotations, depending on the estimated value of the service, for procuring these types of items.

9.4 Criteria – capacities

The following sections can be considered the core of this research, for they deal with *what technical criteria are used*. As reviewed in Section 7.1.4, procurement officials own discretion to decide on two dimensions of technical criteria: capacities and quantities prescribed. I will thus start the discussion on criteria by describing and categorizing these capacities. Then I will analyze them vis-à-vis services procured. I will take on the thorny issue of quantities on Section 9.5.

9.4.1 Criteria according to capacities demanded

In Table 30 I summarize criteria employed for the 104 items procured, discriminating the capacities demanded. As we can see, almost half of the time procurement officials employed a rather generic criterion, namely *experience with similar/compatible/relevant design*. Otherwise, the second most used capacity is *experience in architectural design*, which is also fairly general. In some cases, procurement officials deemed adequate to further specify this capacity, for instance by establishing criteria such as *experience in architectural design for new construction* or *experience in architectural design for renovation*. Table 30 provides only a preliminary portrait of criteria employed. I will deepen the analysis in the following sections.

Table 30 - Number of criteria by capacities demanded

Capacity	Number	% Total
architect or engineer working for the bidder	10	5%
experience in acoustics design	1	1%
experience in architectural design	38	19%
experience in architectural design for new construction	3	2%
experience in architectural design for new construction or for renovation	8	4%
experience in architectural design for renovation	3	2%
experience in architectural design for restoration	7	4%
experience in construction or renovation of buildings	3	2%
experience in design for accessibility	5	3%
experience in design of parking lots	1	1%
experience in landscape design	2	1%
experience in lighting design	1	1%
experience in outsourcing	5	3%
experience with similar/compatible/relevant design	97	49%
knowledge of the object	2	1%
organizational structure and resources	1	1%
postgraduate studies or specialization	2	1%
proposed approach	2	1%
specialized experience	8	4%
time since graduation	1	1%
Total	**200**	**100%**

Before proceeding further, I would like to comment on one requirement which procurement officials did not present as a technical criterion, but that could be considered as such. In procedure 080016 0019/2017, it was required that the winning bidder should submit a project previously developed in a BIM (Building Information Model) software. This requirement was not inscribed in the solicitation document but included in the reference terms[60] (Appendix 1, p.18), amongst a list of conditions that the winning firm was expected to fulfill. As discussed in Section 6.2.2, this type of requirement could be employed only as an evaluation criterion, and it should be clearly stated in the solicitation document. However, this procedure was a reverse auction, so evaluation criteria are not admissible. Two bidders were disqualified for not complying with this requirement (auction report,

[60] In the original: "*A empresa deverá comprovar, por meio de acervo técnico, experiência na execução de projetos com área mínima de 2.250m² e apresentar o arquivo digital com pelo menos um projeto completo com 2.250m² desenvolvido em BIM (*Building Information Model*)*".

p.20 and p.22), but they did not submit protests. It can be argued that this was an instance of disguised technical evaluation criterion.

9.4.2 Typology of criteria

Table 31 displays the number of technical criteria used, according to two dimensions: they can be employed as evaluation or as qualification criteria; and they can be applied on the technical capacities of the bidder, which I call bidder-specific, or on the qualities of the item being offered by bidders, which I call item-specific.

Table 31 - Typology of criteria

	evaluation	qualification
bidder-specific	17	179
item-specific	4	0

As expected, given the small number of value-based procedures, most criteria are employed as qualification criteria. Accordingly, only a small fraction of criteria is item-specific, since these should only be used as evaluation criteria.

In Table 32 I further detail this typology, categorizing the capacities demanded as bidder-specific or item-specific, and discriminating their use as evaluation or as qualification criteria. At this level of analysis, this list of capacities seems to correspond with what one would expect for procurement of architectural services. I will address the issue of criteria's suitability to each service procured in Section 9.4.3. Before, I would like to discuss three observations regarding results so far.

The first is about the criterion *experience in construction or renovation of buildings*. It could be considered arbitrary to demand such criterion as qualification criterion, since none of the items analyzed concern construction or renovation of buildings but rather *design* for construction or renovation of buildings. However, using it as an evaluation criterion can be reasonable, given that experience in construction and renovation may improve chances of designing an architectural project – or an engineering project, since these services are often bundled – that takes into account the challenges of construction sites.

Table 32 - Number of evaluation and qualification criteria

Criteria	evaluation	qualification	total
bidder-specific	17	179	196
architect or engineer working for the bidder		11	11
experience in acoustics design	1		1
experience in architectural design	1	34	35
experience in architectural design for new construction		3	3
experience in architectural design for new construction or for renovation	3	8	11
experience in architectural design for renovation		3	3
experience in architectural design for restoration		4	4
experience in construction or renovation of buildings	3		3
experience in design for accessibility	1	4	5
experience in design of parking lots		1	1
experience in landscape design		2	2
experience in lighting design	1		1
experience in outsourcing		6	6
experience with similar/compatible/relevant design	3	94	97
organizational structure and resources	1		1
postgraduate studies or specialization	1	1	2
specialized experience	1	8	9
time since graduation	1		1
item-specific	4		4
knowledge of the object	2		2
proposed approach	2		2
total	**21**	**179**	**200**

The second observation is about the criterion *time since graduation*, used as an evaluation criterion. This criterion has the advantage of being easy to measure objectively. But its use can be questionable, because time passed since graduation does not necessarily correspond to experience in the field. This criterion was used only once, in request for quotations 343011 0003/2017, which concerns procurement of design for restoration.

The third observation concerns the criterion *architect or engineer working for the bidder*. Since services included in this study are services exclusive for architects, it could be argued that having an engineer working for the bidder would not be relevant. However, as mentioned in Section 9.3.1, most of these architectural services are bundled in the same item with engineering services, which explains the use of this criterion. This situation also reinforces the need for different services be procured in different items, using criteria that are relevant for each item.

9.4.3 Criteria and services

The heart of this research concerns the relation between the services procured and the criteria demanded for these services. In Table 33 I display the number of criteria according to capacities and respective services. Capacities are shown in the columns. Services, discriminated by type of buildings, are shown in the rows. Resulting figures provide an account of how procurement officials have devised criteria for each type of service.

As proposed in Section 4.4, procurement officials should translate the most important technical requirements of the architectural services procured into qualification and evaluation criteria. In this regard, most criteria analyzed seem compatible with respective services procured. Some issues, however, must be highlighted. The first issue regards the service *design for renovation or retrofit*. Renovating is usually considered a more complex task than constructing a new building, and this feature is acknowledged by Law 8.666 (Brasil 1993, Art. 65, § 1). Therefore, it would be expected that criteria for renovation of buildings would neither include capacities such as *experience in architectural design for new construction*, nor a yet more general criterion such as *experience in architectural design*, which does not necessarily include experience with design for renovation. These two criteria were used 27 times for procuring the service *design for renovation or retrofit*. For instance, reverse auction 170516 0008/2017 regards the renovation of two offices, but the criterion required was experience in basic projects for new commercial or public buildings[61].

[61] In the original: "*projetos Básicos e/ou Executivos para a construção de prédios de escritórios, comerciais ou públicos*" (solicitation document, p.15).

Table 33 - Criteria by type of service and type of building

Type of service and type of buildings	architect or engineer working for the bidder	experience in acoustics design	experience in architectural design	experience in architectural design for new construction	experience in architectural design for new construction or for renovation	experience in architectural design for renovation	experience in architectural design for restoration	experience in construction or renovation of buildings	experience in design for accessibility	experience in design of parking lots	experience in landscape design	experience in lighting design	experience in outsourcing	experience with similar/compatible/relevant design	knowledge of the object	organizational structure and resources	postgraduate studies or specialization	proposed approach	specialized experience	time since graduation	Total
acoustics design																					
office														2							2
school/university	1	1						1													3
any type of design - consulting																					
not applicable	1		2											1							4
any type of design - outsourced																					
not applicable			2										6	4					2		14
design for accessibility																					
hospital														1							1
office	1		1		1				4					7			1				15
parking lot	1																				1
school/university	1								1					1							3
interior design																					
office														3							3
landscaping "as built" drawings																					
external area											1			1							2
landscaping and site design																					
external area											1			11							12
lighting design																					
school/university	1							1				1									3
design for new construction																					
garage			1											1							2
hospital			1		1									2					1		5
industrial, workshop or warehouse														2							2
office														9							9
school/university	1		2					1						5							9
design for renovation or retrofit																					
hospital			2		2									8							12
industrial, workshop or warehouse	1		1		1	1								5							9
kitchen/dining hall			2		2					1				2							7
laboratory																			4		4
library														1							1
office	2		17	3	2	2								19							45
police station			2																		2
residential														1							1
slaughterhouse														1							1

Type of service and type of buildings	architect or engineer working for the bidder	experience in acoustics design	experience in architectural design	experience in architectural design for new construction	experience in architectural design for new construction or for renovation	experience in architectural design for renovation	experience in architectural design for restoration	experience in construction or renovation of buildings	experience in design for accessibility	experience in design of parking lots	experience in landscape design	experience in lighting design	experience in outsourcing	experience with similar/compatible/relevant design	knowledge of the object	organizational structure and resources	postgraduate studies or specialization	proposed approach	specialized experience	time since graduation	Total
design for restoration																					
heritage building							4							4	1	1	1	1	1	1	14
design for resuming construction																					
office	1		2											3							6
theatre					2																2
street and transit design																					
urban public spaces														3	1			1	1		6
Total	**11**	**1**	**35**	**3**	**11**	**3**	**4**	**3**	**5**	**1**	**2**	**1**	**6**	**97**	**2**	**1**	**2**	**2**	**9**	**1**	**200**

Another issue is the case of the criterion *experience in design of parking lots*, which was used for procuring the service *design for renovation or retrofit* in the type of building *kitchen/dining hall*. In this case the criterion used is not of any relevance for the service procured. This criterion was used in reverse auction 765701 0007/2017, which I will discuss in further detail in Section 9.6.3.5.

Finally, the criterion *experience with similar/compatible/relevant design* is used across almost all services. This criterion is a mere reproduction of the contents of IN-5[62] (MP 2017b, Appendix VII-A, 10.3.a). To understand this matter, I analyzed whether there was a definition of what sort of capability would be considered compliant for each time the criterion *experience with similar/compatible/relevant design* was employed. Results are shown in Table 34, discriminated by type of service and type of building.

[62] Original contents of IN-5: "*os atestados ou declarações de capacidade técnica apresentados pelo licitante devem comprovar aptidão para desempenho de atividade pertinente e compatível em características, quantidades e prazos com o objeto de que trata o processo licitatório*".

As we can see, in 53 times (out of 97 criteria) this capacity is used without a definition of what can be considered a similar, compatible or relevant experience. This situation puts a lot of interpretation in the hands of procurement officials judging bidders' compliance with this criterion. For instance, would experience in *design for renovation of a school* be judged as compatible experience for a service such as *design for renovation of a library*? Could experience in *design for new offices* be judged as compatible experience for a service such as *design for renovation of an office*? One extreme example of this problem is reverse auction 765701 0007/2017, mentioned above, where experience in *urban and landscaping design* was accepted for the service *design for renovation or retrofit* of a hospital kitchen.

A definition of what can be considered similar, compatible or relevant capacities would improve objectivity when judging this criterion. For instance, in reverse auction 925942 0059/2017, the criterion used for all items was *experience with similar/compatible/relevant design*. But the solicitation document stated that this experience should concern execution projects for public or commercial buildings, which provides enough delimitation for judging what capacities are acceptable.

Table 34 - Number of defined and undefined criteria

	experience with similar/compatible/relevant design	
Type of service and type of buildings	**undefined**	**defined**
acoustics design		
office		2
any type of project - consulting		
not applicable		1
any type of project - outsourced		
not applicable		4
design for accessibility		
hospital	1	
office	4	3
school/university	1	
interior design		
office	1	2
landscaping "as built" drawings		
external area	1	
landscaping and site design		
external area	4	7
new construction of building		
garage	1	
hospital	2	

Type of service and type of buildings	experience with similar/compatible/relevant design	
	undefined	defined
industrial, workshop or warehouse		2
office	6	3
school/university	5	
renovation of building		
hospital	8	
industrial, workshop or warehouse	3	2
kitchen/dining hall	2	
library	1	
office	7	12
residential	1	
slaughterhouse	1	
restoration of building		
heritage building		4
resuming construction of building		
office	3	
street and transit design		
urban public spaces	1	2
Total	**53**	**44**

9.4.4 Practices concerning capacities demanded

The analysis of capacities demanded in relation to services procured shows that most of the time this relation is appropriate. Some instances, however, can be considered an extrapolation of procurement officials' operational discretion – in other words, arbitrary practices – since they used criteria not relevant to the services procured. One case is the use of *experience in design for new construction* as a capacity required for the service *design for renovation or retrofit*. A second case is the one case of *experience in design of parking lots* for the service *design for renovation of kitchen/dining hall*. A final case would be the use of *architect or engineer working for the bidder* as a criterion, since the services analyzed in this research are services exclusive for architects, and therefore only architects (not engineers) would be legally able to perform them.

A more concerning issue is the use of the capacity *experience with similar/compatible/ relevant design*. It would be expected that procurement officials define what is similar, compatible or relevant for each service being procured, as discussed in Section 7.2, instead of simply reproducing the contents of regulations on the matter. When procurement officials used this capacity as a criterion without providing a definition for it, they were

acting arbitrarily. This absence of definition allows for a judgement of bidders' compliance lacking objectivity, which in turn may result in a questionable choice of the winner, and it may also generate protests. This was indeed the case in procedure 765701 0007/2017, which I will review in Section 9.6.3.

Finally, I must mention the case of disguised technical criterion in reverse auction 080016 0019/2017. Reverse auction is a price-based solicitation method, therefore demanding bidders to submit a previous work is an irregular practice. I did not identify other instances where this problem occurred.

9.5 Criteria – quantity

9.5.1 Availability of information

One of the most difficult tasks for procurement officials when devising a criterion is probably defining how much of the capacity will be required. As mentioned in Section 6.2.2, the only threshold provided by regulations is that quantities demanded for technical qualification criteria must not exceed 50% of the quantity of the service procured.

For determining the quantity of a criterion, it is thus necessary to determine the quantity of the respective service procured. However, this information was not disclosed in many procedures analyzed. Table 35 accounts the number of items for which the quantity of the architectural service procured was informed or otherwise, alongside the number of corresponding criteria. Seventeen items lacked information concerning the quantity of service being procured. There are 31 criteria related to these items, for which it is impossible to analyze their conformity given this lack of information.

Table 35 - Number of criteria for which a quantity of service was informed

Quantity of service	Number of items	Number of criteria
informed	87	169
not informed	17	31
Total	104	200

9.5.2 Criteria according to quantities demanded

The 87 items for which their quantity was informed corresponded to 169 criteria. From these 169 criteria, 17 are evaluation criteria and 152 are qualification criteria, as displayed in Table 36. No evaluation criteria had a minimum quantity established, which was expected since there is no obligation in this regard. From the 152 qualification criteria, 90 did not require any minimum quantity. Furthermore, six criteria required quantities over 50% of the quantity of their respective services. Hence it can be said that procurement officials correctly employed their discretion regarding quantity of criteria in only 56 qualification criteria.

Table 36 - Number of qualification criteria for which a quantity of items was informed

Type	50% or under	over 50%	not informed	total
evaluation			17	17
qualification	56	6	90	152
Total	**56**	**6**	**107**	**169**

Figure 27 is a histogram depicting the number of qualification criteria according to the relation between quantity of capacity demanded and quantity of respective service procured. If we exclude those six criteria that are above 50%, most of the remaining criteria are between 40% and 50%. The mean value for these criteria is 38%, while the mode is 50%.

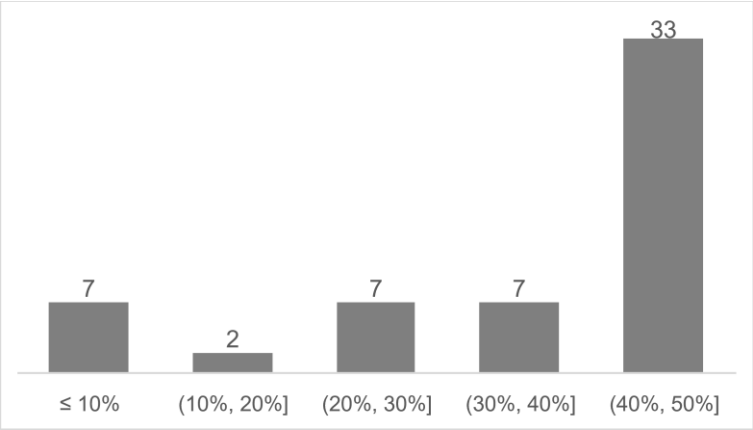

Figure 27 - Quantity of criterion / quantity of item

Some capacities do not lend themselves to a quantity based on services procured. For instance, it makes no sense to require a minimum quantity for the criterion *proposed approach* or for the criterion *time since graduation* based on the quantity of the service. Only capacities related to bidders' experiences can be measured this way. Therefore I produced Table 37 below, showing the number of criteria with no minimum quantity, compared to the total number of criteria for each capacity. These figures reveal that, even for those capacities related to experiences, in most cases there is no minimum quantity established. It would be expected, for example, that criteria regarding *experience in architectural design for new construction* or *experience in architectural design for new construction or for renovation* would require a minimum quantity, but that was not the case in any instance of these criteria.

Table 37 - Capacities without minimum quantity

Capacity	No quantity	Total	%
architect or engineer working for the bidder	10	10	100%
experience in acoustics design	1	1	100%
experience in architectural design	21	38	55%
experience in architectural design for new construction	3	3	100%
experience in architectural design for new construction or for renovation	8	8	100%
experience in architectural design for renovation	1	3	33%
experience in architectural design for restoration	5	7	71%
experience in construction or renovation of buildings	3	3	100%
experience in design for accessibility	3	5	60%
experience in design of parking lots	1	1	100%
experience in landscape design	2	2	100%
experience in lighting design	1	1	100%

Capacity	No quantity	Total	%
experience in outsourcing	5	5	100%
experience with similar/compatible/relevant service	58	97	60%
knowledge of the object	2	2	100%
organizational structure and resources	1	1	100%
postgraduate studies or specialization	2	2	100%
proposed approach	2	2	100%
specialized experience	8	8	100%
time since graduation	1	1	100%
Total	**138**	**200**	**69%**

9.5.3 Practices concerning quantities demanded

Some issues emerged when I analyzed quantities demanded in technical criteria. The first was the lack of information regarding the quantity of services procured. This problem touched 17 items (out of 104 analyzed). This practice is contrary to IN-5 (MP 2017b, Appendix III, 3.4).

The second issue was the absence of minimum quantity of capacity. Although, according to Law 8.666, it is not mandatory to require a minimum quantity of a technical qualification criterion, it is judicious to do so, since it is mandatory according to IN-5, as reviewed in Section 7.2. The absence of this information may lead to a lack of objectivity when procurement officials judge bidders' compliance. It would be better to provide a figure for minimum quantity, even if this figure relies only on procurement officials' past experience (Williamson 2002, 156; Baggini 2005, 75). The absence of minimum quantity led to one protest, in reverse auction 254445 0291/2017. In this case, the protester questioned the qualification of the winners, given their insufficient experience. I will further discuss this case in Section 9.6.3.5.

The final issue is requiring minimum criterion quantity over 50% of service quantity. This problem touched six criteria analyzed and it is a clear case of arbitrary practice.

9.6 Protests

9.6.1 Reasons for protests

On Figure 28 I display the number of procedures lacking information on protests, the number of procedures with no protest and the number of procedures discriminating the reason of protests[63]. I discussed the matter of lack of information on Section 9.1.2. Technical criteria were a reason for protest in half of the cases where a protest was presented (twelve out of 24 cases in total).

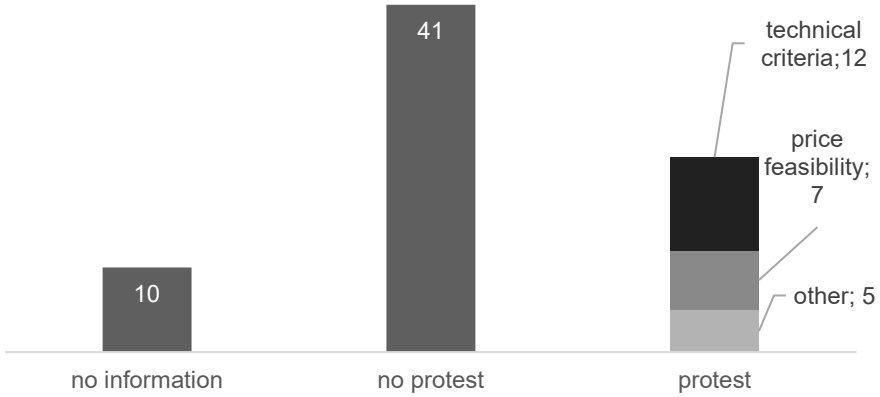

Figure 28 - Number of procedures by reason of protests

In this inquiry, my focus is on protests related to technical criteria, so I will not comment on protests for other reasons. Yet, although price feasibility is not the main issue of this research, I deemed it worth analyzing the latter due to the large discrepancies between estimated values and contracted values, mentioned in Section 9.3.6. Thus, I accounted procurement officials' judgements of protests regarding both price feasibility and technical criteria. Results are shown on Table 38. The figures show the number of procedures subjected to any of these protests.

[63] Some procedures had more than one type of protest, for instance one protest regarding technical criteria and another protest regarding price feasibility.

Table 38 - Procurement officials' judgements of protests

Reason	not valid	valid	total
price feasibility[64]	7		7
technical criteria	8	4	12
Total	**15**	**4**	**19**

9.6.2 Protests regarding price feasibility

None of the protests for price feasibility was considered valid, not even when the contracted value was less than 40% of the estimated value, which was the case for procedures 090023 0029/2017, 343034 0003/2017, 380941 0007/2017 and 925942 0059/2017. It is possible that bidders use this type of protest to try to disqualify winning bids. Nevertheless, when the winning bid is too low, procurement officials are expected to perform an inquiry into winners' proposed values, as established by Law 8.666 (Art. 48), but this was not the case. I will provide two examples of this problem below.

The first instance is procedure 380941 0007/2017 item 001. Here, the estimated value was R$ 668.836,73 and the contracted value was R$ 167.900,00 (25% of the estimated value). Two bidders protested, arguing that the winning bidders' price was not feasible.
The winners presented a report intended to prove the feasibility of their price. In this report, they produced values based on the number of hours each professional is supposed to work for the service. However, the original estimated price was calculated in square meters of service procured. Therefore, it was impossible to judge the feasibility of the proposed values because there was no correspondence between hours and quantities of service. Yet, procurement officials dismissed the protests inasmuch as the winners "were incisive in their arguments and clarifications, definitely indicating their desire and conditions to assume the contract"[65]. The second instance of this problem is procedure 343034 0003/2017. In this

[64] Procedure 343034 0003/2017 had protests for both price feasibility and technical criteria. I counted it only as the latter, given that technical criteria are the focus of this thesis.
[65] In the original: "*Não há, portanto, que se falar em inexequibilidade dos valores propostos na fase de lances, como requerem as recorrentes, uma vez que as recorridas foram incisivas em suas argumentações e esclarecimentos, apontando de forma definitiva seu desejo e condição de assumir os trabalhos objeto do presente certame conforme disputado e proposto.*"
(Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=707610&ipgCod=19622968&Tipo=DP&seqSessao=1)

case, the estimated value was R$ 299.300,00 and the contracted value was R$ 70.000,00 (23% of the estimated value). Three bidders protested, arguing that the winning bidders' price was not feasible. The winners, in turn, argued that their price was feasible because they would employ a team comprising three interns for a R$ 660,00/month salary, one technical designer[66] for a R$ 2.300,15/month salary, and an architect for a R$ 1.600,00/month salary[67]. The architect's salary proposed is only 25% of the average salary for architects in Brazil (Cesar 2019), and it is so low that even the technical designer's salary is higher than that. Regardless, procurement officials judged the protests not valid because, according to them, the winners proved their prices were indeed reasonable[68].

9.6.3 Protests regarding technical criteria

I analyzed all protests contesting technical criteria or contesting procurement officials' assessment of compliance with technical criteria. In some cases, more than one protest may have been presented. Nevertheless, I restricted the analysis to protests related to technical criteria for architectural services, for the others would be outside the scope of this research. I review each case below.

9.6.3.1 Reverse auction 152663 0015/2017

This procedure regards procurement for architectural and engineering services for the construction of a multipurpose building in a university campus. The criterion for architectural services demanded experience with architectural design of commercial buildings. One bidder presented an objection, arguing that residential and institutional buildings should also be accepted. This objection was judged not valid because it was presented later than the due date for objections. The due date was 18.12.2017, and it was

[66] In the original: "*desenhista técnico*".
[67] Source: http://comprasnet.gov.br/livre/pregao/download_anexo.asp?ipaCod=3923233
[68] In the original: "a exequibilidade foi aferida pelo detalhamento de custos apresentado pela empresa recorrida".
(Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=679193&ipgCod=18901560&Tipo=DP&seqSessao=1

sent on this date. The procuring entity disregarded it on the grounds that it was sent "after business hours"[69]. This judgement seems arbitrary, for regulations do not mention a time limit for the submission of objections, only a date limit (Brasil 2005, Art. 18). Furthermore, the protester's argument seemed partially valid. The subject matter being a building for an educational institution, institutional buildings should be considered compatible with it. It would not be the case for residential buildings, though. This objection reinforces the importance of indicating what type of experience will be considered compliant with the criterion, as well as the importance of assuring that the criterion is relevant to the service procured.

9.6.3.2 Request for quotations 170088 0001/2017

This procedure regards procurement of design for accessibility for several buildings. Three objections and three appeals were submitted, but only one appeal concerned technical criteria for architectural services. Here, one bidder argued that three other contenders did not present all documents required to prove their conformity to evaluation criteria demanded. After reassessing the documents, procurement officials judged this protest not valid[70]. Indeed, I verified that the contender did submit the documents required. This protest may have been a misguided attempt to negatively influence procurement officials' evaluation of other bidders' submissions. It is worth noting that the protester, in this case, was the final winner of the bid.

9.6.3.3 Reverse auction 170134 0006/2017

This procedure regards procurement of design for retrofitting a building to adapt it to accessibility norms. Two technical criteria explicitly asked for experience in retrofitting design – "*projeto (...) para adequação de acessibilidade em prédios*" (solicitation

[69] In the original: "*observa-se que a Impugnante encaminhou sua petição, via e-mail licitacao@luzerna.ifc.edu.br, no dia de 18/12/2017 às 17h04min, tendo sido após o horário de expediente, considerou-se como recebido no dia 19/12/2017 e, considerando que a abertura da sessão pública do pregão está agendada para o dia 20/12/2017 às 9h, a presente Impugnação apresenta-se intempestiva.*" (Source: http://comprasnet.gov.br/livre/pregao/avisos4.asp?qaCod=763376&texto=T)

[70] Source: document *Proposta Técnica – Decisão Recurso interposto pela licitante Plana Arquitetura e Consultoria Ltda.*

document, p.15). One bidder appealed, arguing that the winners did not submit documents proving that they had experience in retrofitting design. Procurement officials reassessed the documents and realized that the winners' documents in fact did not prove their experience in retrofitting design, rather they only proved experience in designing new buildings. They contended, however, that retrofitting was not the main issue of the criteria – in their words: "despite the word 'retrofitting' in both items, it is clear that this term is not the core of the requirement"[71]. The protest was thus judged not valid. This decision seems arbitrary. If experience in retrofitting was not important, it should not have been included in the first place, for its inclusion may have discouraged the participation of many bidders who had experience with designing new buildings but no experience with retrofitting. Thus, economic competition during procurement proceedings was restricted for no relevant reason.

9.6.3.4 Reverse auction 343034 0003/2017

This procedure regards procurement of design for restoration services for a heritage building. One technical criterion established that bidding firms should be a member of the architects' professional order or the engineers' professional order. One bidder presented an objection, arguing that this criterion contradicted Resolution 51 because this rule establishes that engineers should not perform services that are exclusive for architects. Procurement officials replied that such interpretation was incorrect, since the criteria also determined that it was mandatory for the bidding firms to have at least one architect in their team, and this professional would be responsible for services exclusive for architects. Thus, an engineering firm would not be prevented from bidding, provided they had an architect working for them. The objection was thus considered not valid[72]. Another bidder presented an appeal arguing that this procedure should have been procured by means of a prize competition, and not by a reverse auction. Procurement officials correctly contended that

[71] In the original: "*apesar dos dois itens conterem a palavra 'adequação', é evidente que não é esse o termo que define o cerne da exigência*".
(Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=693559&ipgCod=19268214&Tipo=DP&seqSessao=1)
[72] Source:http://comprasnet.gov.br/livre/pregao/avisos4.asp?qaCod=722325&texto=R

protests regarding the solicitation method must be done in the objection phase, and not in the appeal phase. However, they did not provide any further explanation on why they chose to employ a reverse auction[73]. As mentioned in Section 9.3.5, this was the only procedure for this type of service that was procured by means of reverse auction.

9.6.3.5 Reverse auction 765701 0007/2017

This procedure concerned the design for renovation of a hospital kitchen. Two technical criteria for architectural services were demanded. One of them, surprisingly, asked for experience in designing parking lots[74] (reference terms, p.4). The other asked for experience in a similar service[75], without providing a definition for what would be a similar service (solicitation document, p.10). One bidder protested, arguing that the winners did not present documents proving they had experience in designing renovation of hospital kitchens. Instead, their documents proved experience in urban and landscaping design. The procurement official responsible for this reverse auction contended that the winners complied with the criteria, since they provided documents proving they had similar experience, namely in urban and landscape design. In a confusing argument, this procurement official seems to suggest that criteria demanded in public procurement do not necessarily need to conform to Law 8.666[76]. The protest was thus rejected. This decision goes against procurement officials' formal discretion, given that urban and landscaping design cannot be considered similar to retrofitting of a hospital kitchen, even in the absence of a definition of what would be considered similar. Furthermore, the criterion regarding

[73] Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=679193&ipg Cod=18901560&Tipo=DP&seqSessao=1
[74] In the original: "*Elaboração de projeto de arquitetura para estacionamentos descobertos e cobertos*".
[75] In the original: "*serviços similares ao objeto da contratação*".
[76] In the original: "*Entendo que os Atestados de Capacidade Técnica apresentados pela recorrida estão em conformidades* (SIC) *com o subitem 9.7.12 do edital, onde 'requer a comprovação relativo* (SIC) *à execução de serviço de arquitetura/engenharia, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação', vejamos que cada contratação requer habilidades específicas, de forma que esse entendimento não pode ser aplicado uniformemente, o conteúdo exigidos* (SIC) *nas licitações não tem atendido aos pressupostos da Lei nº 8.666/93*". Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=697381&ipgCod= 19380529&Tipo=DP&seqSessao=1

experience in designing parking lots can be considered arbitrary, for it bears no relation to the service procured, thus contradicting IN-5 (MP 2017b, 67, item 10.4.c).

9.6.3.6 Reverse auction 925138 0028/2017

This procedure concerns procurement for outsourced architectural services. The criterion in this procedure required experience in similar services. According to the solicitation document, similar services consisted of at least 500 square meters of internal layout design in commercial buildings. One bidder protested, arguing that they were disqualified unjustly, since they proved they had experience in internal layout design of 350 square meters of commercial buildings and 1350 square meters of industrial buildings. This protest was judged not valid because interior layout design in industrial buildings is not considered similar to interior layout design in commercial buildings[77]. This judgement seems right, for commercial and industrial are different activities, and the definition of the capacity provided an objective guidance on what experiences would be considered compliant.

9.6.3.7 Request for quotations 925152 0002/2017

This procedure concerns procurement for architectural and engineering services for the design of a new building. One of the technical evaluation criteria in this procedure concerned the number of architects working for the bidding firms. Bidding firms should prove that they had architects in their team, and they should provide a copy of the architects' diplomas (solicitation document, Appendix X, p.3). One bidder protested this criterion arguing that, to work as an architect, a professional must be a member of CAU-BR, and to be a member, it is necessary to have a diploma in architecture. Hence providing copies of diplomas would be unnecessary. Procurement officials contended that the request for copies of diplomas was stated in the solicitation document, whence it ought to be taken into consideration. For this reason, the protest was judged not valid[78]. On the one hand, it could be argued that the criterion itself was arbitrary, since it falls to

[77] Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=659979&ipgCod=18395237&Tipo=DP&seqSessao=1
[78] Source: http://www.crcmg.org.br/licitacoes/download-pedido/id/5783

the professional order to decide about a professional's capacity for working as an architect, and thus requiring diplomas would not be the best avenue. A professional could hold a diploma and not be a member of the professional order, which would prevent them from working legally as an architect. On the other hand, once this criterion was inscribed in the solicitation document, procurement officials would not have discretion to dispense it, which would corroborate their judgement. Therefore, procurement officials' judgement in this case seems to respect their formal discretion.

9.6.3.8 Reverse auctions 170217 0007/2017, 0008/2017 and 0009/2017

These three procedures concern architectural and engineering services for the design of renovation of offices in three different cities. One bidder presented objections in each procedure against a criterion which stated that documents proving experience should be validated by the professional order. This objection was accepted and led to the corresponding correction in the solicitation documents of the three procedures[79]. Indeed, TCU (2016) has established that demanding such formality is illegal.

9.6.3.9 Reverse auction 254445 0291/2017

This procedure concerns procurement of execution design, comprising architectural and engineering services, for the retrofitting of a chemical laboratory. One technical criterion for architectural services required an architect working for the bidding firm, and this architect should prove experience in execution design of the same type of laboratory (solicitation document, p.9-10). Two bidders presented protests concerning this criterion. The first protester argued that the winner did not prove they had experience in 50% of the quantity of the item procured. However, the technical criterion did not establish any minimum quantity of experience that should be proven. For this reason, this protest was judged not valid[80]. This case corroborates the importance of determining a minimum

[79] Source: http://comprasnet.gov.br/livre/pregao/avisos4.asp?qaCod=764229&texto=R; http://comprasnet.gov.br/livre/pregao/avisos4.asp?qaCod=764240&texto=R; http://comprasnet.gov.br/livre/pregao/avisos4.asp?qaCod=764245&texto=R.

[80] In the original: "*tem-se admitido como razoável a exigência de comprovação de experiência em percentual de até cinquenta por cento dos quantitativos a executar (...), conforme disposição expressa contida em edital,*

quantity of capacity demanded. Nevertheless, it would be unfair to exclude bidders due to lack of compliance with a minimum quantity that was not established beforehand. Thus, procurement officials' judgement seems to be the right one. The second protester contended that they were unjustly disqualified. They submitted documents proving experience in execution design, but these documents regarded an engineer, and not an architect. They argued that the experience of an engineer should be considered compliant with the criterion which required an architect, mentioned above. After reassessing regulations on the matter, procurement officials concluded that execution projects can be produced by both architects and engineers. Hence, they judged this protest valid and they decided to restart the procedure[81]. This protester eventually won the bid. I noticed that, when assessing regulations, they did not mention Resolution 51, which establishes services which are exclusive for architects. Since the technical criterion inscribed in the procurement document correctly required an architect for architectural services, procurement officials' judgement of this latter protest seems arbitrary.

9.6.3.10 Request for proposals 443001 1/2017

This procedure concerns procurement for interior design projects. The technical criterion employed demanded only experience with compatible services. One bidder protested against the qualification of another participant, arguing that the latter was not a member of the professional order, and therefore could not have a valid experience in interior design projects[82] . Procurement officials judged this protest not valid, for the bidder in question was a member of the professional order[83]. I searched the professional order's member

afastando o entendimento da Recorrente de que a demonstração de percentuais inferiores, de pronto, inabilitaria alguma das interessadas". Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=683414&ipgCod=19004624&Tipo=DP&seqSessao=1

[81] Source: http://comprasnet.gov.br/livre/pregao/Termojulg2.asp?prgCod=683414&ipgCod=19004624&Tipo=DP&seqSessao=2

[82] In the original: "*OFFICEBRASIL PROJETOS E REPRESENTAÇOES LTDA - EPP, nao possui registro nas entidades de classe CREA/CAU, e por isso nao pode ter apresentado atestado de capacidade técnica em seu nome*". Source: document *recurso administrativo*, p.8.

[83] Source: document *despacho 214/217*, p.1.

database and I confirmed the bidder is indeed listed as a member since 2007. This protest was probably a failed attempt to get rid of competitors in this procedure.

9.6.4 Practices on protests

Results above confirm that technical criteria are the most common reason for protests in the procurement of architectural services, in line with discussions in Sections 2.1 and 3.9. Nevertheless, in most cases procurement officials judged such protests not valid.

The analysis of protests unveiled at least four instances of procurement officials acting arbitrarily: they refused a protest without reasonable motive, on the grounds that it was not presented during business hours (procedure 152663 0015/2017); they required useless documents (procedure 925152 0002/2017); and they accepted experience that was not compliant with criteria in two cases – they agreed to experience that was not conform with their own requirement on the grounds that the original criterion was not essential (procedure 170134 0006/2017) and they agreed to experience that was clearly not similar to the service procured on the grounds that it is not necessary to comply with the law (procedure 765701 0007/2017).

The analysis of protests reinforces the importance of devising well-defined capacities and minimum quantities for technical criteria. For instance, in procedure 925138 0028/2017, procurement officials were able to objectively judge a protest because both capacity and minimum quantity were established in the solicitation document. In contrast, the lack of defined capacity led to arbitrary decisions, as was the case in procedure 765701 0007/2017, and the absence of a minimum quantity led to questionable decisions, as was the case of procedure 254445 0291/2017.

However, clearly defining the criterion is not enough. Criteria must be relevant to the service procured. When this is not the case, procurement officials find themselves in the awkward position of having to justify arbitrary decisions, as reviewed above concerning procedures 765701 0007/2017 and 925152 0002/2017.

9.7 Cancelled procedures

As mentioned in Section 8.4.3.2, I included in this research cancelled procedures that were abandoned due to the lack of suitable bids, because they could indicate that technical criteria used were too strict, preventing all participating bidders from getting the contract. I review these procedures below.

9.7.1 Procedures cancelled due to lack of suitable bids

I provide a list of procedures that were cancelled due to lack of suitable bids on Table 39, discriminating architectural services procured and capacities demanded. I discuss each of these procedures in the following sections.

Table 39 - Cancelled procedures

procedure	method	service	capacities
090012 0001/2017	reverse auction	any type of design - outsourced	experience in architectural design experience in outsourcing
090012 0006/2017	reverse auction	any type of design - outsourced	experience in architectural design experience in outsourcing
179085 0098/2017	reverse auction	any type of design - outsourced	experience in outsourcing
254445 0215/2017	reverse auction	design for renovation or retrofit	specialized experience
925856 0049/2017	reverse auction	design for renovation or retrofit	experience with similar/compatible/relevant service
925856 0147/2017	reverse auction	design for renovation or retrofit	experience with similar/compatible/relevant service

9.7.1.1 Reverse auctions 090012 0001/2017 and 090012 0006/2017

Reverse auctions 090012 0001/2017 and 090012 0006/2017 concern procurement for contracting out one architect for one year. Ten bidders participated in the former, and six in the latter. In both cases, no one was able to comply with a criterion requiring bidders to prove experience in outsourcing at least twenty workers for three years[84]. Although this criterion seems disproportionate in relation to the services procured, it is in line with regulations regarding outsourced services in force when the procedure was published

[84] In the original: "*Item cancelado na aceitação. Motivo: Falta de proposta válida. As empresas participantes não observaram o exigido no item 8.15.1 do edital.*"
Source: Awarding of the contract for procedure 090012 0006/2017.

(MPOG 2008; Brasil 2019c). These regulations were replaced by IN-5, which no longer includes such requirement (MP 2017b Appendix VII-A item 10.3.a).

9.7.1.2 Reverse auction 179085 0098/2017

This procedure concerns procurement for outsourcing architecture, engineering and administrative services, for a total of 31 workers for one year. Nine bidders submitted offers in this reverse auction. Like the cases examined in the previous section, here criteria also required bidders to prove experience in outsourcing at least twenty workers for three years. One bidder was disqualified for not complying with this criterion[85], while all others were disqualified for their price was too high or for not providing required documents. This procedure was successfully replaced by reverse auction 179085 0112/2017.

9.7.1.3 Reverse auction 254445 0215/2017

This procedure concerned procurement for execution design for the retrofitting of a pharmaceutical laboratory producing vaccines. Ten bidders submitted offers in this reverse auction. Technical criteria required experience with design of grades A, B or C laboratories, which is a classification established by the World Health Organization (WHO 2012, 17). None of the bidders was able to comply with this requirement[86]. This procedure was successfully replaced by reverse auction 254445 0291/2017. In the latter, technical criteria were less rigorous, demanding experience with grade D laboratories, which are less strict than grades A, B or C laboratories. Yet, it was the subject of protests, as reviewed in Section 9.6.3.9.

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[85] In the original: "*Senhor licitante, após análise dos documentos de qualificação técnica dessa empresa, a área técnica informa (...) o não atendimento do subitem 8.7.2.1.2, uma vez que não demonstrou a prestação de serviço de consultoria na área de engenharia e/ou assessoria técnica na área de engenharia e/ou execução de manutenção predial para os profissionais técnico em edificações técnico em mecânica e eletrotécnicos*."
Source: auction report, p.13.

[86] In the original: "*Item cancelado na aceitação. Motivo: Nenhuma das empresas atendem a todas as exigências e especificação do edital.*"
Source: awarding document.

9.7.1.4 Reverse auctions 925856 0049/2017 and 925856 0147/2017

Both procedures concern procurement for design for renovation of the same hospital. The technical criterion required documents proving experience with compatible services[87], and such documents should be validated by the professional order. There was no definition of what experience would be considered compatible.

Twenty-one bidders participated in reverse auction 925856 0049/2017. One bidder was disqualified because their documents were not validated by the professional order[88]. This bidder did not protest, although this requirement is illegal, as mentioned in Section 9.6.3.8. Remaining bidders were disqualified due to lack of compliance with financial or legal criteria.

Fourteen bidders participated in reverse auction 925856 0147/2017. Three bidders were disqualified because they did not present proof of experience with compatible services[89]. One of them declared they intended to protest against their disqualification. Nevertheless, procurement officials contended this bidder could not protest because the disqualification was based in the technical analysis of the planning team[90]. I analyzed the documents submitted by this bidder and I found that they did include a proof of experience in design for renovation of hospitals[91]. Since no minimum quantity was required, it is not clear why

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[87] In the original: "*Apresentar atestado(s) de atividades anteriores exercidas pela empresa licitante, emitido(s) por pessoa(s) jurídica(s), devidamente chancelado(s) pelo CREA/CAU competente, que comprove aptidão da licitante para execução de serviços compatíveis com o objeto desta licitação*".
Source: solicitation document, p.6, for both procedures.

[88] In the original: "*Prop recusada, consid parecer técnico, onde p/ o Atestado de Capac Técnica do Projeto de Arquit. de adequação/adaptação da área do FUSEX e do PAM emitido p/ Hosp. De Guarn. de Florianópolis não foi apres CAT emitida p/ CREA/CAU compat. com o objeto da presente licitação, conf. o item 8.17.6 Edital*". Source: auction report, p.6.

[89] In the original: "*Motivo: Proposta recusada, considerando parecer da área técnica onde informa que a licitante não atende em sua totalidade o item 8.17.2, pois não consta o atestado de projeto de arquitetura compatível com o objeto da licitação*". Source: auction report, p.4-5.

[90] In the original: "*Considerando que a desclassificação foi fundamentada no parecer técnico da área solicitante/demandante, acostado aos autos, mantenho a decisão de inabilitar a empresa. Desta forma, nego provimento a intenção de recurso apresentada*". Source: auction report.
I reviewed the division of tasks in procurement in Section 6.2.5.2.

[91] In the original: "*(certificado de) projeto arquitetônico executivo de reforma com acréscimo de área do ambulatório Santa Rita de Cassia, com área total construída de 3.379,28m²*".
Source: *Certidão de acervo técnico com atestado n. 189754*, available at http://comprasnet.gov.br/livre/pregao/download_anexo.asp?ipaCod=4001694

this experience was judged not compliant with the technical criteria demanded. This is a case where procurement officials' judgement was not in line with their formal discretion, especially considering that they refused the claimant bidder's protest. Remaining bidders were disqualified due to lack of compliance with financial or legal criteria.

9.7.2 Practices in cancelled procedures

From the analysis above, we may conclude that technical criteria regarding architectural services contributed to the cancellation of procedures due to lack of suitable bids, although they were not the main cause of cancellations. Only in reverse auction 254445 0215/2017 a too strict technical criterion for architectural services invalidated all submissions. We can argue, however, that due to the nature of this service, namely a project for a pharmaceutical laboratory requiring rigorous levels of sanitation and decontamination, the strict criteria employed could be deemed reasonable. Reverse auctions 090012 0001/2017, 090012 0006/2017 and 179085 0098/2017 were cancelled due to a technical criterion, yet this criterion did not regard architectural services; it was instead a mandatory requirement related to outsourced services that has been excluded by subsequent regulations.

In what concerns the discrepancy between intended policy and practices regarding the impact of technical criteria on the cancellation of bids, only reverse auctions 925856 0049/2017 and 925856 0147/2017 presented a problem. In the former, procurement officials required a procedure that is considered illegal. Despite this illegality, they disqualified a bidder based on noncompliance with such procedure. The case of reverse auction 925856 0147/2017 is a more serious one. The lack of definition on what would be a "compatible" service and the lack of information on minimum quantity may have allowed procurement officials to make arbitrary judgements. Furthermore, procurement officials preventing the bidder from submitting a protest without reasonable motive reinforces the arbitrariness of their decision. This case corroborates again the need of objectively defined capacities and of setting minimum quantity of capacities.

9.8 Synthesis of practices

For synthesizing the results so far in this research, I will provide a brief review of practices that could be considered arbitrary concerning procurement of architectural services. This review will help answer the research question dealing with the dominant patterns of practice that add up to actual policy, which I will discuss in Section 9.10.

9.8.1 Summary of practices

As reviewed in Sections 9.2 through 9.7, a general portrait can be drawn concerning the first level of data analyzed, related to solicitation methods. Architectural services are usually procured by means of reverse auctions. Value-based procedures are very seldom employed, and no prize competition occurred during the period under research. A limited number of procedures employed SRP.

In regard to the second level of data analyzed, related to services procured, it can be argued that most services procured concerned architectural design services, with a small proportion of outsourced architectural services. Very often architectural services are procured in the same item with engineering services, which is a cause for imprecise classification of services. Most of architectural design services procured concerned design for renovation or retrofitting and for new construction of public buildings.

In regard to the third level of data analyzed, related to criteria, it can be argued that, due to the small number of value-based procedures, few evaluation criteria were employed. In what regards qualification criteria, in almost half of the instances analyzed the capacity demanded was a mere reproduction of the contents of regulations. Not much effort is put into devising criteria that translate the technical requirements of the service procured. In what regards the minimum quantity of criteria, procurement officials often used the 50% of the quantity of service allowed by regulations, but it is also common not determining any minimum quantity.

9.8.2 Arbitrary practices

For analyzing actual policies, I must first assess whether procurement officials' practices are in line with desired policies. In other words, does operational discretion conform to formal discretion? When decisions are outside the limits of formal discretion, they are considered arbitrary.

In Table 40 I summarize procurement officials' practices which I considered potentially arbitrary in this study, indicating their frequency. I did not include in this list practices related to issues of transparency and price feasibility. An analysis of such practices would demand to inquire about formal discretion on these matters, which was not in the scope of this research.

Before discussing further on arbitrary practices, one point must be made on the practice *indiscriminately using reverse auctions*. It can be argued that the use of reverse auctions as a solicitation method may not be considered a clear-cut case of arbitrary practice, since Law 8666 and IN-5 are at odds on this issue. Under this view, it would not be possible to state that the 54 procedures carried out by reverse auctions represent arbitrary practices. Nevertheless, since a federal law takes precedence over a regulation, the indiscriminate use of reverse auctions can be considered arbitrary. In any case, it is obvious that reverse auction is arbitrary when the services procured are specialized services as described in the solicitation documents. That was the case in four procedures.

Table 40 - Summary of potentially arbitrary practices

Practice	**Frequency observed**
Using reverse auctions for specialized services	4 out of 73 procedures
Using SRP for architectural services	6 out of 73 procedures
Bundling different services in the same item	69 out of 104 items
Employing solicitation methods for values above their threshold	4 out of 73 procedures
Employing imprecise classification from CATSER	62 out of 104 items

Practice	Frequency observed
Indiscriminately using reverse auctions	54 out of 73 procedures
Not using prize competitions	All 73 procedures
Using criteria not relevant to services procured	34 out of 200 criteria
Using criteria without definition	53 out of 200 criteria
Demanding disguised technical criterion	1 out of 73 procedures
Not informing quantity of service	18 out of 104 items
Not requiring minimum quantity of capacity	89 out of 152 qualification criteria
Requiring minimum criterion quantity over 50% of service quantity	6 out of 200 criteria
Refusing protests without reasonable motive	2 out of 73 procedures
Requiring useless documents	1 out of 73 procedures
Accepting experience that was not in criteria	2 out of 73 procedures
Requiring illegal formality	1 out of 73 procedures

9.8.3 Frequency of arbitrary practices

It is still not clear to what extent the practices listed on Table 40 constitute actual policy. As discussed in Section 5.3, a single isolated decision can hardly be considered actual policy. Instead, one should search for dominant patterns of practice; in other words, instances when a certain type of decision can be expected from a public organization.

To discern what practices may be considered actual policy, I first need to unveil how often these practices have occurred. Table 40 already suggests the most common practices. But these practices are related to procedures, services or criteria, therefore comparing them is not straightforward. For instance, Table 40 does not reveal how many procedures had criteria without definition or how many procedures did not require a minimum quantity of criteria. To be able to compare these numbers, I produced Table 41 below. In this table, I enumerate all potentially arbitrary practices found in each procedure analyzed. However, I

did not include the practice *not using prize competitions* in Table 41. This practice cannot be considered arbitrary at the level of individual procurement procedures. Therefore, it would not be fair to state that procurement officials ignored prize competitions in each procedure.

Table 41 reveals that all procedures had at least one arbitrary practice, while the procedures with most arbitrary practices had seven of them. The mean number of arbitrary practices per procurement procedure is four.

Table 41 - Procedures and noncompliant practices

procedure	Estimated value (R$)	Indiscriminately using reverse auctions	Using reverse auctions for specialized services	Using SRP for architectural services	Employing solicitation methods for values above their threshold	Bundling different services in the same item	Employing imprecise classification from CATSER	Using criteria not relevant to services procured	Using criteria without definition	Demanding disguised technical criterion	Not informing quantity of service	Requiring minimum quantity over 50%	Not requiring minimum quantity of capacity	Refusing protests without reasonable motive	Requiring useless documents	Accepting experience that was not in criteria	Requiring illegal formality	Refusing protests without reasonable motive	Total
443001 0001/2017	62.302,50								●										1
170131 0022/2017	19.396,60	●				●													2
200207 0013/2017	23.175,60	●											●						2
090003 0031/2017	48.584,53	●									●								2
200108 0008/2017	55.032,23	●				●													2
343003 0002/2017	137.728,14					●					●								2
343036 0002/2017	185.600,00					●							●						2
153103 0024/2017	194.026,00					●	●												2
343011 0003/2017	537.174,49					●							●						2

procedure	Estimated value (R$)	Indiscriminately using reverse auctions	Using reverse auctions for specialized services	Using SRP for architectural services	Employing solicitation methods for values above their threshold	Bundling different services in the same item	Employing imprecise classification from CATSER	Using criteria not relevant to services procured	Using criteria without definition	Demanding disguised technical criterion	Not informing quantity of service	Requiring minimum quantity over 50%	Not requiring minimum quantity of capacity	Refusing protests without reasonable motive	Requiring useless documents	Accepting experience that was not in criteria	Requiring illegal formality	Refusing protests without reasonable motive	Total
080002 0002/2017	1.145.390,00					●			●										2
530001 0016/2017	7.875.467,12	●									●								2
090038 0004/2017	25.635,72	●				●							●						3
200035 0012/2017	49.984,00	●							●				●						3
389086 0006/2017	83.825,00	●					●				●								3
170010 0006/2017	143.654,32	●				●	●												3
926066 0006/2017	145.697,02	●							●				●						3
155124 0003/2017	220.704,00					●	●						●						3
154046 0004/2017	261.571,04					●	●						●						3
343034 0003/2017	299.300,00	●	●										●						3
160066 0013/2017	421.573,31	●							●				●						3
170088 0001/2017	677.199,03				●	●	●												3
254445 0215/2017	682.808,74	●				●							●						3
254445 0291/2017	682.808,74	●				●							●						3
925138 0028/2017	1.647.695,43	●				●					●								3
153052 0005/2017	8.475.000,00			●	●								●						3

procedure	Estimated value (R$)	Indiscriminately using reverse auctions	Using reverse auctions for specialized services	Using SRP for architectural services	Employing solicitation methods for values above their threshold	Bundling different services in the same item	Employing imprecise classification from CATSER	Using criteria not relevant to services procured	Using criteria without definition	Demanding disguised technical criterion	Not informing quantity of service	Requiring minimum quantity over 50%	Not requiring minimum quantity of capacity	Refusing protests without reasonable motive	Requiring useless documents	Accepting experience that was not in criteria	Requiring illegal formality	Refusing protests without reasonable motive	Total
925387 0002/2017	13.152.300,53					●	●				●								3
160078 0001/2017	38.095,95					●	●		●		●								4
153167 0042/2017	42.757,13	●				●	●						●						4
154618 0015/2017	48.897,86	●				●			●				●						4
170516 0005/2017	52.324,28	●				●		●			●								4
255026 0006/2017	54.307,50	●					●		●		●								4
160036 0025/2017	68.123,02	●				●			●				●						4
170516 0008/2017	112.434,36	●				●		●					●						4
090012 0023/2017	120.000,00	●				●			●				●						4
400066 0001/2017	125.513,96				●	●			●				●						4
765705 0001/2018	129.425,66					●	●	●			●								4
080026 0001/2017	132.926,35					●	●		●				●						4
158377 0040/2017	132.984,83	●				●			●			●							4
153167 0037/2017	205.366,40	●				●	●						●						4
170388 0001/2017	238.583,01	●				●	●				●								4
090012 0001/2017	246.981,60	●				●	●				●								4

procedure	Estimated value (R$)	Indiscriminately using reverse auctions	Using reverse auctions for specialized services	Using SRP for architectural services	Employing solicitation methods for values above their threshold	Bundling different services in the same item	Employing imprecise classification from CATSER	Using criteria not relevant to services procured	Using criteria without definition	Demanding disguised technical criterion	Not informing quantity of service	Requiring minimum quantity over 50%	Not requiring minimum quantity of capacity	Refusing protests without reasonable motive	Requiring useless documents	Accepting experience that was not in criteria	Requiring illegal formality	Refusing protests without reasonable motive	Total
090012 0006/2017	246.981,60	●				●	●				●								4
926195 0026/2017	321.333,33	●				●	●				●								4
120196 0001/2017	599.500,00					●	●		●				●						4
020001 0001/2017	760.037,66					●	●					●	●						4
787700 0006/2016	832.442,15	●				●	●						●						4
155008 0038/2017	986.483,50	●		●			●		●										4
179085 0098/2017	2.982.746,52	●				●	●				●								4
179085 0112/2017	2.982.746,52	●				●	●				●								4
158275 0014/2017	5.593.760,00	●		●					●				●						4
170217 0011/2017	48.769,17	●				●	●	●					●						5
170217 0008/2017	51.081,25	●				●	●	●					●						5
170134 0006/2017	53.602,64	●				●	●						●			●			5
170217 0009/2017	66.522,81	●				●	●	●					●						5
170217 0007/2017	73.572,40	●				●	●	●					●						5
090012 0041/2017	112.616,04	●				●	●		●				●						5
925856 0049/2017	144.930,47	●				●			●				●				●		5

procedure	Estimated value (R$)	Indiscriminately using reverse auctions	Using reverse auctions for specialized services	Using SRP for architectural services	Employing solicitation methods for values above their threshold	Bundling different services in the same item	Employing imprecise classification from CATSER	Using criteria not relevant to services procured	Using criteria without definition	Demanding disguised technical criterion	Not informing quantity of service	Requiring minimum quantity over 50%	Not requiring minimum quantity of capacity	Refusing protests without reasonable motive	Requiring useless documents	Accepting experience that was not in criteria	Requiring illegal formality	Refusing protests without reasonable motive	Total
925856 0147/2017	144.930,47	●				●			●				●					●	5
420001 0001/2017	149.193,07				●	●	●		●		●								5
152663 0015/2017	212.194,67	●					●		●				●	●					5
090023 0029/2017	241.667,51	●				●	●		●				●						5
090023 0059/2017	242.693,15	●				●	●	●	●										5
925152 0002/2017	473.472,85					●	●		●				●		●				5
380941 0007/2017	977.360,92	●				●	●	●					●						5
080016 0019/2017	1.650.000,00	●				●	●			●			●						5
925942 0059/2017	8.365.133,33	●		●			●					●	●						5
200043 0017/2017	24.695,52	●				●	●		●			●	●						6
200121 0009/2017	31.525,50	●	●			●	●	●				●							6
765701 0007/2017	55.000,00	●				●		●	●				●			●			6
170018 0003/2017	126.836,28	●				●	●	●				●	●						6
153047 0019/2017	551.149,40	●		●				●	●			●	●						6
250025 0007/2017	69.767,04	●	●			●	●	●	●				●						7
158720 0004/2017	11.197.396,19	●	●	●		●	●		●		●								7

procedure	Estimated value (R$)	Indiscriminately using reverse auctions	Using reverse auctions for specialized services	Using SRP for architectural services	Employing solicitation methods for values above their threshold	Bundling different services in the same item	Employing imprecise classification from CATSER	Using criteria not relevant to services procured	Using criteria without definition	Demanding disguised technical criterion	Not informing quantity of service	Requiring minimum quantity over 50%	Not requiring minimum quantity of capacity	Refusing protests without reasonable motive	Requiring useless documents	Accepting experience that was not in criteria	Requiring illegal formality	Refusing protests without reasonable motive	Total
median estimated value:	**149.193,07**	**54**	**4**	**6**	**4**	**57**	**42**	**14**	**29**	**1**	**18**	**7**	**44**	**1**	**1**	**2**	**1**	**1**	**286**

For a clearer portrait of how frequent these practices are, Figure 29 classifies them by the frequency in which they occurred in procedures. Here I included *not using prize competitions* because, from the perspective of the entire set of procurement procedures analyzed, the lack of prize competitions does indicate an instance of practice that is not in line with intended policy.

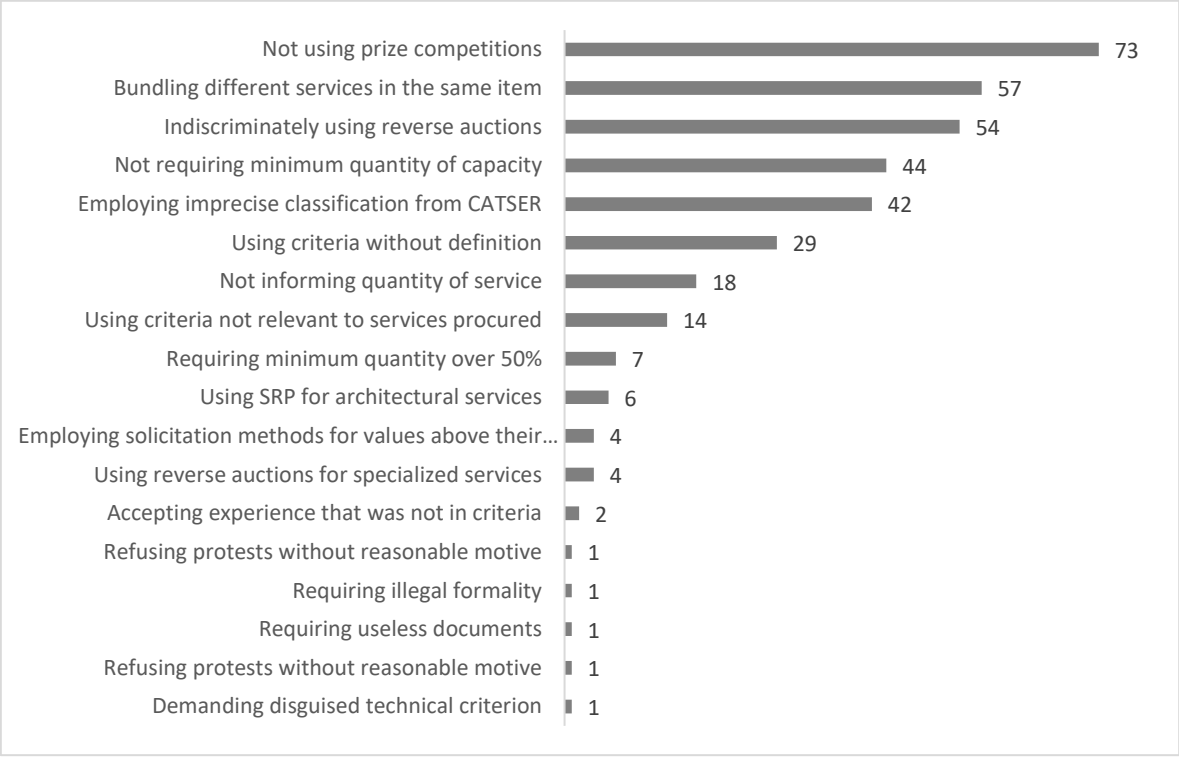

Figure 29 - Frequency of noncompliant practices by number of procedures

Considering the 73 procedures analyzed in this study, five practices are found in more than half of these procedures. These most common practices are *not using prize competitions, bundling different services in the same item, indiscriminately using reverse auctions, not requiring minimum quantity of capacity*, and *employing imprecise classification from CATSER*.

In the next section I will discuss, by means of an analysis of some selected cases, how such practices can be detrimental to the intended policy on procurement of architectural services.

9.9 Cases

Based on Seawright and Gerring's (2008, 297) methods of case selection and analysis, I chose four procedures for a deeper scrutiny. Having Table 41 as a starting point and having the number of arbitrary practices as the main factor of interest, I identified two diverse cases, one typical case and one deviant case. These instances may provide a broad spectrum of the population investigated in this study. They were also chosen because, after a preliminary content analysis of related documents, I realized they were likely to afford meaningful insights on the outcomes of these procedures.

The two diverse cases are reverse auction 200108 0008/2017 and reverse auction 158720 0004/2017. The former was chosen for its low number of arbitrary practices (only two) and because, this low number notwithstanding, its outcome was a failure – the winner never signed the contract. The latter was chosen for its high number of arbitrary practices (seven) and because, despite all irregularities, the contract was signed and the procured services were, at least partially, delivered.

The typical case is reverse auction 787700 0006/2016. I considered it a typical case not only because it has the mean number of arbitrary practices (four), but also because it features four of the most common practices: *bundling different services in the same item, using reverse auctions, not informing the quantity of criteria,* and *incorrectly classifying architectural services*.

The deviant case is request for proposals 443001 0001/2017. I selected this instance for it is the procedure with the lowest number of arbitrary practices (one) and because it is the only procedure which should be procured by means of a request for proposals that was correctly procured by means of a request for proposals.

9.9.1 Reverse auction 200108 0008/2017

Reverse auction 200108 0008/2017 concerns execution projects for the renovation of offices for *Procuradoria Geral do Trabalho*, including architecture and engineering services. The cost of all these services was estimated in R$ 55.032,23, while the quantity of service corresponded to 1.372,50 square meters.

This procedure was published in *Comprasnet* on December 13, 2017. The auction took place on December 26, with 25 bidders. The value of their initial bids ranged from R$ 50.000,00 to R$ 100.00,00. The lowest price offered during the auction, by *B. R. Ximenes Claudino*, was R$ 25.900,00. Nevertheless, *B. R. Ximenes Claudino* did not comply with the technical criteria demanded. As the auctioneer noted, they failed to provide documents proving the experience required[92]. Thus, the second-best offer, by *Valadão Engenharia*, for R$ 26.000,00 was declared the winning submission[93]. No protest was submitted. The contract was signed in March 2018.

Two arbitrary practices were employed in this procedure. First, execution projects, which cannot be considered common services, were procured by means of a reverse auction. Second, procurement officials bundled a number of different services under the same item. Two of these services are exclusively for architects, namely architectural project and lighting design, while the other services are engineering services, such as water and sewage project, electrical project and data network project. All of these services were classified as *studies and projects in architecture*.

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[92] In the original: "*Não foi enviado nenhum documento referente à alínea 'e' (Atestado de Capacidade Técnica, emitido por pessoa jurídica)*".
Source: auction report, p.7
[93] Source: auction report, p.5-6.

The criteria demanded for this procedure were that both the winning firm (operational criterion) and a professional working for the winning firm (professional criterion) should prove experience with architecture and electrical installations execution projects for commercial, administrative or institutional buildings, and such experience should amount to at least 600 square meters[94], thus below the 50% maximum of the quantity of service established by regulations. Given that all services were bundled in the same item, these criteria seem reasonable, for architecture and electrical installations were the most expensive services in this procedure, corresponding respectively to 30% and 10% of the total estimated cost[95].

Valadão Engenharia did present documents proving experience with execution projects for renovation, including architecture and electrical installations, of a church and a school[96] (both types of building can be considered institutional). Accordingly, procurement officials considered their submission compliant with the criteria demanded[97]. Since the criteria demanded were defined and quantified, there was little room for a reflexive judgement in this case.

The main problem in this procedure is that services exclusive for architects and engineering services were procured in the same item. In such cases, the criteria demanded may include experience from architects or from engineers. Therefore, an engineer may get the job that should be exclusive for architects. This was indeed what occurred in this procedure. *Valadão Engenharia* is an engineering firm and the professional who got the job is an engineer. The firm and the professional are registered at the professional order of engineers

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[94] In the original: "*Atestado de Capacidade Técnica (...) onde reste comprovada a elaboração de Projeto de Reforma (Arquitetura e Instalações elétricas), em nível executivo, para edificação comercial, administrativa, corporativa ou institucional, com área útil de, no mínimo, 600 m²*".
Source: solicitation document, p.129.
[95] Source: solicitation document, p.118.
[96] In the original: "*PROJETO > OBRAS E SERVIÇOS - CONSTRUÇÃO CIVIL -> EDIFICAÇÃO -> – ALVENARIA: 7.786,86m²*"; "*PROJETO > OBRAS E SERVIÇOS - CONSTRUÇÃO CIVIL -> EDIFICAÇÕES -> INSTALAÇÃO ELÉTRICA DE BAIXA TENSÃO: 2.750,31 m²*"
Source: http://comprasnet.gov.br/livre/pregao/download_anexo.asp?ipaCod=4265312 (p.17-18)
[97] In the original: "*Senhores licitantes, após análise da documentação enviada, e verificada a regularidade dos documentos, conforme especificações editalícias, declaro VENCEDORA para o certame a empresa VALADÃO ENGENHARIA EIRELI – EPP.*"
Source: Auction report.

(CREA)[98], not at the professional order of architects (CAU-BR). Such choice could compromise the quality of architectural services.

A way to avoid this problem is following the regulations, which establish that different services must be procured as separate items. In this manner, it is possible to devise specific criteria for architectural services, including the obligation that the professional must be a member of CAU-BR. If that were the case, the same bidding firm could have won the contract, provided it had an architect in their workforce to perform the services that are exclusive for architects.

Although they signed the contract, *Valadão Engenharia* never delivered the services procured. According to procurement officials, the firm disappeared without submitting any of the projects they were expected to provide[99]. For this reason, they never got paid; furthermore, in January 2019 the procuring entity applied a fine and banned *Valadão Engenharia* from participating in public procurement for five years[100]. A search in *Comprasnet* showed that the procuring entity did not carry out another procedure for the same services[101].

9.9.2 Reverse auction 158720 0004/2017

Reverse auction 158720 0004/2017 concerns design for new construction and design for renovation of buildings for *Universidade Federal do Sul da Bahia* (University of South Bahia). The estimated value of this procedure was R$ 11.197.396,19, but the quantity of services procured was not informed.

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[98] Source: http://comprasnet.gov.br/livre/pregao/download_anexo.asp?ipaCod=4265312 (p.1).
[99] In the original: "*No entanto, até o presente momento a empresa não apresentou nenhum dos projetos previstos e não cumpriu nenhuma das etapas programadas. Ademais, a Administração não consegue nem mesmo localizá-la. Isso demonstra que a empresa não tem condições de cumprir com o contrato dentro dos prazos estipulados*". Source: Document *Relatório de análise de descumprimento contratual* (p.6-7).
[100] Source: http://compras.dados.gov.br/fornecedores/v1/ocorrencias_fornecedores?cnpj=28251827000197
[101] Source: http://compras.dados.gov.br/licitacoes/v1/licitacoes.html?uasg=200108 ; http://compras.dados.gov.br/compraSemLicitacao/v1/compras_slicitacao.html?co_uasg=200108 ; http://compras.dados.gov.br/compraSemLicitacao/v1/compras_slicitacao.html?co_uasg=200108&offset=500

This procedure was published in *Comprasnet* on December 22, 2017. The auction took place on January 17, 2018, with twenty bidders participating in it. The value of their initial bids ranged from R$ 9.069.890,91 to R$ 23.601.153,14. The lowest price offered by the winner, *Grid Power Solutions Engenharia e Consultoria*, during the auction was R$ 9.048.522,00. The contract was signed on March 2018.

In this procedure, procurement officials employed seven practices that go against regulations: they indiscriminately used reverse auction (in this case, for an RDC), they used reverse auction for specialized services, they used SRP for architectural services, they bundled different services under the same item, they employed imprecise classification of services, they used criteria without definition, and they did not inform the quantity of items (services) procured.

The criterion demanded was *experience with similar/compatible/relevant design*, and the quantity of experience demanded was 1.000 square meters[102]. It is not possible to judge if the quantity demanded complies with regulations because the quantity of services was not informed. But for services with an estimated value of over R$ 11 million, 1.000 square meters is very low[103]. The documents submitted by *Grid Power Solutions Engenharia e Consultoria* show that they had an experience of over 5.000 square meters of architectural projects for a university[104], which is compatible with the criterion demanded.

Although the winners complied with the technical criteria demanded, one protest was submitted, arguing that they did not comply with formalities such as submitting the documents within the prescribed period. Procurement officials dismissed this protest, for *Grid Power Solutions Engenharia e Consultoria* did submit all documents required

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[102] In the original: "*Serão considerados os projetos para edificações com no mínimo 1.000 m² de área construída para prédios públicos ou privados*". Source: solicitation document, p.66.
[103] Using CAU-BR's table of suggested price for architectural projects and using the mean value of construction for December 2017 as a base for calculations, I calculated that R$ 11 million would pay for over 250 thousand square meters of architectural projects for offices of medium complexity. Source: https://honorario.caubr.gov.br/doc/TAB-livro1-final.pdf, p.44; https://www.sinduscondf.org.br/portal/cub.
[104] In the original: "*Projeto arquitetônico: 5100.00 m²; Contratante: UNIVERSIDADE FEDERAL DA BAHIA*".
Source: Document *CERTIDÃO DE ACERVO TÉCNICO COM ATESTADO Nº 0000000177033*, p.1.

within the time frame stipulated[105]. This protest was probably a failed attempt to disqualify the winner to increase the protester's chances of getting the contract.

I will exploit this procedure to illustrate two arbitrary practices: indiscriminately using reverse auctions and employing SRP for procuring architectural services.

Concerning the first, the solicitation document informs that this procedure is an RDC. Regardless, it was not carried out by the RDC platform in *Comprasnet*, but rather by the reverse auction platform. Surprisingly, no objection was presented concerning this issue. As described by the procuring entity, the items procured here concern "basic projects and execution projects in architecture and engineering of medium complexity"[106]. Therefore, they could not be procured by means of a reverse auction, which can only be employed for procuring common services. Carrying out this procedure on the reverse auction platform while stating that this procedure is an RDC might be a way of avoiding accusations of using the wrong procedure and taking advantage of the friendlier platform available to reverse auctions. This practice yielded a reduction in transparency. In RDC, bidders have five days to present objections, whereas in reverse auctions they only have three days. Due to the way the reverse auction platform is designed, it is not possible to submit objections by this platform after three days. Thus, objections had to be submitted by e-mail and consequently are not publicly available in the system. This problem was mentioned by the auctioneer in the auction report, for bidders were instructed to submit objections "by e-mail in order to reconcile the RDC procedure with the reverse auction platform"[107].

Second, this procedure employed SRP, which cannot be used for procuring services. To justify the use of SRP, the procuring entity argued that "the tool allows for contracting out

[105] Source: Document *Decisão do pregoeiro* (p.1-2).
[106] In the original: "*prestação de serviços técnicos de elaboração de projetos básico e executivo de arquitetura e engenharia de média complexidade, pelo regime diferenciado de contratação, necessários às construções, reformas e ampliações de diversas unidades da Universidade Federal do Sul da Bahia*". Source: solicitation document, p.4
[107] In the original: "*Tal ação visa compatibilizar o sistema com a regra do art. 54 do Decreto 7581/2011 que regulamenta a Lei do RDC e prevê o prazo de cinco dias para apresentação das razões de recurso*". Source: auction report, p.9.

many services by means of one procurement procedure, according to our schedule"[108]. However, they acknowledge that "it is impossible to foresee the quantity of services to be carried out" and that "it is not possible to define precisely where" the projects will be built[109]. As stated by IN-5, it is not legal to procure services without precisely describing these services or without estimating the quantity of services that will be executed.
The problem with this practice is that SRP enables the procuring entity and other public organizations to engage in contracts with the winning bidder for services that were not specified and quantified before the procedure. This was indeed the case in this procedure, for not only *Universidade Federal do Sul da Bahia* but also *Universidade Federal do Oeste da Bahia* disbursed money related to this procedure, meaning that both entities have demanded services from *Grid Power Solutions Engenharia e Consultoria*[110]. Also noteworthy, the first payment for services related to this procedure was made only in November 2018[111], eight months after the contract was signed. This might hint that the procuring entity was not able to demand services in a timely manner.

So many arbitrary practices, as seen in this case, could be a sign of corrupt activities (Transparency International 2006, 35). At this point, however, it is not possible to suggest that the discretionary decisions in this procedure might concern corrupt activities or rather a way to shortcut the formalities imposed by the Brazilian legal framework.

In addition to the two problems related above, the auction report of this procedure reveals the gambling character of reverse auctions, as shown in Figure 30. In this figure, the first column presents the values offered by bidders, the second column presents the code of

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[108] In the original: "*O SRP permite a contratação de uma empresa para a elaboração de diversos projetos, cuja demanda para a elaboração de cada projeto obedecerá ao cronograma programado*".
Source: solicitation document, p.5.
[109] In the original: "*Dessa forma, pretende-se racionalizar tanto a quantidade de processos licitatórios quanto o gerenciamento de contratos. (...) O uso do SRP, por seu turno, se dá pela impossibilidade de se prever o quantitativo dos serviços a serem executados, tendo em vista o momento atual de implantação da nova universidade, não sendo possível se definir, com precisão, os locais e os quantitativos*".
Source: solicitation document, p.58.
[110] Source: http://www.portaltransparencia.gov.br/despesas/favorecido?faseDespesa=3&favorecido=50901014&ordenarPor=valor&direcao=desc
[111] Source: http://paineldecompras.economia.gov.br/contratos, contract id = 15872050000032018

participating bidders, and the third column presents the date and time the bids were received in *Comprasnet.* The auctioneer triggered the random closure of the auction at 11:31:12. The closure itself occurred at 11:44:16. During the two minutes preceding the closure of bids, twelve offers were received by the system, two of them within less than a second (11:44:01). The value of these offers ranged from R$ 10 million to R$ 9.048.522,00. Considering the delay for interactions through the internet, it can be argued that winning this bid was a matter of having luck to propose the least expensive price just before the random closure. It was hardly a matter of economic competition and the real cost of the services procured.

R$ 9.048.547,9999	05.062.405/0001-78	17/01/2018 11:43:19:450
R$ 10.600.000,0000	11.471.872/0001-54	17/01/2018 11:43:20:607
R$ 9.048.550,0000	18.460.001/0001-84	17/01/2018 11:43:21:637
R$ 9.048.545,0000	02.210.717/0001-93	17/01/2018 11:43:26:543
R$ 9.048.560,0000	11.967.694/0001-57	17/01/2018 11:43:35:687
R$ 9.048.530,0000	20.704.503/0001-55	17/01/2018 11:43:36:280
R$ 9.048.540,0000	18.460.001/0001-84	17/01/2018 11:43:45:000
R$ 9.048.528,0000	02.210.717/0001-93	17/01/2018 11:43:55:000
R$ 9.048.522,0000	14.742.012/0001-04	17/01/2018 11:44:01:000
R$ 9.048.549,0000	11.967.694/0001-57	17/01/2018 11:44:01:077
R$ 9.048.527,9999	05.062.405/0001-78	17/01/2018 11:44:09:623
R$ 9.048.531,0000	18.460.001/0001-84	17/01/2018 11:44:13:297

Não existem lances de desempate ME/EPP para o item

Eventos do Item

Evento	Data	Observações
Aberto	17/01/2018 10:19:10	Item aberto.
Iminência de Encerramento	17/01/2018 11:31:12	Batida iminente. Data/hora iminência: 17/01/2018 11:41:12.
Encerrado	17/01/2018 11:44:16	Item encerrado

Figure 30 - Auction report for 158720 0004/2017 (excerpt)

9.9.3 Reverse auction 787700 0006/2016

Reverse auction 787700 0006/2016 concerns three services: preliminary study, basic design and execution design for renovation and new construction of an intensive care unit for *Hospital Naval de Brasília*. The estimated value of this procedure was R$ 832.442,15 and the quantity of services procured corresponded to 5.590 square meters. Here, procurement officials employed four of the most common practices that go against regulations I unveiled

in this research. I will exploit this typical case of procurement for architectural services to illustrate the problems that the lack of a minimum quantity of criteria may cause.

This procedure was published in *Comprasnet* on March 16, 2017. The auction took place on March 28, 2017, with 36 bidders. The value of their initial bids ranged from R$ 1.400.000,00 to R$ 300.000,00. The winner, *Casa Estúdio Arquitetura*, submitted an initial bid of R$ 830.000,00[112], but they won the auction thanks to a final offer of R$ 130.000,00, roughly 15% of the procedure's estimated value. Such low price could have been grounds for protests regarding feasibility of the service, yet no bidder submitted protests.

In this procedure, procurement officials employed the criterion "experience with similar/compatible/relevant design", and they did define what would be considered a similar experience: "projects for construction or renovation of healthcare facilities including an intensive care unit"[113]. Nevertheless, they did not establish what minimum quantity of this criterion would be accepted. An analysis of the documents submitted by *Casa Estúdio Arquitetura* unveils that they proved they had the required experience concerning projects for a hospital including an intensive care unit. However, this experience amounted to only 524,66 square meters, less than 10% of the quantity of services procured[114]. Such little experience was considered compliant with the criterion demanded nonetheless, since there was no minimum quantity established.

Furthermore, they demanded that the winner should present the proof of compliance with this criterion "when signing the contract", not before awarding the bid[115]. This means that other bidders would not be able to analyze the compliance of the winning bidder with

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[112] Source: auction report, p.3.
[113] In the original: "*projetos de construção ou reforma de estabelecimentos assistenciais de saúde contemplando a construção de Unidade de Terapia Intensiva (UTI)*".
Source: solicitation document, p.13.
[114] Source: document *Habilitação capacidade técnico-profissional*, p.14-15.
[115] In the original: "*Declaração da LICITANTE de que apresentará, no ato da assinatura do Contrato, os documentos que comprovem que possui, em seu quadro de funcionários e sócios, pelo menos um Engenheiro ou Arquiteto com experiência comprovada em execução de projeto semelhante ao exigido neste Edital*".
Source: solicitation document, p.12.

the criterion demanded, for the documents would be submitted outside *Comprasnet*. Since this is a matter of how the solicitation document was devised, potential bidders should have signaled this problem before the reverse auction was carried out. Any protests related to compliance with technical criteria submitted after the auction took place could be dismissed because this course was established in the solicitation document.

Casa Estúdio Arquitetura stated that they won the bid thanks to their "experience working with a number of municipalities and businesses in different states"[116], and they were paid in full for the services[117]. However, in 2019, *Hospital Naval de Brasília* started a new procurement procedure for the same services, but this time by means of an RDC[118]. It could be argued, then, that the services delivered by *Casa Estúdio Arquitetura Ltda* did not meet the standards desired by the procuring entity.

Like the previous procedure, the auction report of this reverse auction also reveals its gambling nature, as shown in Figure 31. During the three minutes preceding the closure of bids, eight offers were received by the system. The value of these offers ranged from R$ 434.127,40 to R$ 130.000,00. *Casa Estúdio Arquitetura Ltda* offered R$ 132.000,00 at 10:56:57 and R$ 130.000,00 at 10:58:06. Considering the value of the winner's initial bid (R$ 830.000,00), it is not reasonable to reckon that these low-priced offers took into account the real cost of the services procured.

[116] In the original: "*Nossa empresa atua em diversas cidade* (sic) *seja atendendo prefeituras, empresas em vários estados e, graças ao nosso acervo técnico, nos permitiu disputar com outras grandes empresas essa licitação do Hospital Naval em Brasília*".
Source: http://gazetadotriangulo.com.br/tmp/noticias/casa-estudio-arquitetura-sera-responsavel-pelo-projeto-do-hospital-naval-em-brasilia/
[117] Source: http://portaltransparencia.gov.br/licitacoes/32819596/pessoa-juridica/14695455000183
[118] Source: http://www.comprasnet.gov.br/ConsultaLicitacoes/download/download_editais_detalhe.asp?coduasg=787700&modprp=99&numprp=12019

01/05/2018	COMPRASNET - O SITE DE COMPRAS DO GOVERNO	
R$ 133.000,0000	26.717.532/0001-38	28/03/2017 10:55:58:480
R$ 132.999,0000	04.681.959/0001-90	28/03/2017 10:56:25:343
R$ 434.127,4000	09.148.179/0001-01	28/03/2017 10:56:46:950
R$ 132.000,0000	14.695.455/0001-83	28/03/2017 10:56:57:147
R$ 131.000,0000	26.717.532/0001-38	28/03/2017 10:57:07:103
R$ 132.000,0000	24.582.052/0001-81	28/03/2017 10:57:30:847
R$ 130.999,9999	04.681.959/0001-90	28/03/2017 10:57:30:917
R$ 132.750,0000	15.696.877/0001-36	28/03/2017 10:58:01:903
R$ 130.000,0000	14.695.455/0001-83	28/03/2017 10:58:06:370

Figure 31 - Auction report for 787700 0006/2016 (excerpt)

9.9.4 Request for proposals 443001 0001/2017

Request for proposals 443001 0001/2017 concerns interior design projects for two buildings housing the headquarters of *Agência Nacional das Águas* (National Water Agency). Each building has an area of 2.000 square meters, thus the quantity of service procured was 4.000 square meters. The cost of the service was estimated in R$ 62.302,50. This procedure is interesting not only because it has only one type of non-conformity, but also because it is the only one with an estimated cost below R$80.000,00 which was procured by means of request for proposals. In other words, it is the only procedure of a relatively low estimated cost not employing reverse auction.

This procedure was published in *Comprasnet* on September 6, 2017. Six enterprises took part in this request for proposals. The value of their bids ranged from R$ 30.000,00 to R$ 49.231,00. Since this was a price-based procedure, the bidder offering the lowest price – *TW Projetos* – won the bid[119]. There was one protest regarding technical criteria, which I discussed in Section 9.6.3.10. No protest concerning price feasibility was presented, the low value of the winning bid notwithstanding. The contract was signed on October 17, 2017, less than two months from its publishing.

Procurement officials requested only one technical criterion: that the winning firm should prove that "they have satisfactorily performed services compatible with the subject matter of procurement"[120], amounting to at least 1.900 square meters. This figure corresponds to

[119] Source: Evaluation and judgement of bidders' submissions (*Ata de abertura de proposta de preços*), p.1.
[120] In the original: "*um, ou mais, atestado de capacidade técnica (...) o qual comprove que a licitante prestou, ou esteja prestando, de forma satisfatória, serviços compatíveis com o objeto, em no mínimo 1.900m²*".

47,5% of the quantity of service procured, thus below the 50% maximum established by regulations. The irregularity in this procedure is that procurement officials did not define what sort of services would be considered compatible with the service procured. Although such lack of definition has led to problems in other procedures, in this instance it was not an issue. Interior design projects for offices are a type of architectural service that does not require a high level of specialization. It could be argued that any architect should be capable of performing such a task. Therefore, any experience in architectural services, or even just being a member of the professional order, could be acceptable criteria here. *TW Projetos* submitted documents proving experience concerning more than 14.000 square meters of interior design projects[121], which is way above the quantity demanded. They were paid for the services in March 2018.

9.9.5 Lessons from the cases

Due to the nature of this descriptive research, it is not possible to establish a causal relationship between arbitrary practices, including ill-devised criteria, and undesirable procurement outcomes. Yet, it would be reasonable to hypothesize that, in reverse auctions 787700 0006/2016 and 200108 0008/2017, ill-devised technical criteria, coupled with the low price resulting from the use of reverse auctions, may have contributed to the ultimate failure of the procedures. In the former case, the winning bidder might not have been able to deliver high quality services, resulting in considerable waste of time for the procuring entity. In the latter case, the winning bidder might have realized that performing the service for the price they offered would not be feasible and thus deserted the contract.

Reverse auction 158720 0004/2017 is a different instance, for the winner did deliver the services. Here, the main issue is the lack of transparency concerning the services procured, which allows for the payment for services that were not described in

Source: solicitation document, p.6.
[121] In the original: "*Projeto de Arquitetura de Interiores em area de 14.136,5 m²*".
Source: bidders' qualification documents, p.35.

the solicitation document. The root of this problem is the arbitrary use of SRP for procuring services. The procuring entity can be questioned by the Federal Audit Office about its lack of compliance with IN-5.

Finally, request for proposals 443001 0001/2017 is a deviant case where procurement officials' discretion was in line with intended policy. Given the relatively smoothness in which this procedure was carried out, and its quick outcome, this case shows that solicitation methods other than reverse auctions can provide successful results in procurement of architectural services.

The cases mentioned here confirm that procurement officials' practices often go against intended policies. The question remaining is: to what extent such practices are actual policies, as advanced by street-level bureaucracy theory? I will approach this matter in the following sections.

9.10 From practices to policy

9.10.1 Not policy and grey zone

It can be difficult to draw the limits between practices that are actual policy from those that are not. As street-level bureaucracy theory proposes, practices become actual policy when one can expect such practices given their cumulative use (Section 5.3). Thus, to set those limits, I used the frequencies displayed in Table 41 as a starting point. From them, I categorized the practices using the concepts of zones of certainty, mentioned in Section 7.4. Some isolated practices are certainly not actual policy; some practices are observed infrequently but are not isolated, so it is difficult to categorize them; finally, some recurrent practices do make up actual policy due to their high frequency. Accordingly, I classified them into three categories, namely *not policy*, *grey zone* and *actual policy*, as I discuss below.

Those four practices that were unveiled in the analysis of protests and of cancelled procedures cannot be considered actual policy due to their infrequency. These practices are

refusing protests without reasonable motive, requiring useless documents, accepting experience that was not in the criterion and *requiring illegal formality.* For the same reason, two other practices which emerged from the analysis of solicitation documents cannot be considered actual policy: *demanding disguised technical criteria*, which only occurred once, and *using reverse auctions for specialized services*, which occurred four times. The latter is related to *indiscriminately using reverse auctions*, which will be discussed in the next section. These six practices are closer to a random decision than to a recurring practice. Nevertheless, they are instances of operational discretion at odds with formal discretion.

In what concerns practices that can be considered in the grey zone, I found three of them. The first two are *using SRP for architectural services*, which was the case of six out of 73 procedures, and *requiring minimum criterion quantity over 50% of service quantity*, which only occurred in seven procedures. These are evidently arbitrary practices, but only six or seven instances may not be enough to turn them into dominant patterns of practice. Regardless, audit offices at federal, state and municipal levels should watch these issues, for such practices could become widespread without supervision, as one can witness by the ubiquitous use of reverse auctions.

The third practice in the grey zone is *using criteria not relevant to services procured*, which was the case of 29 procedures (or 34 criteria out of 200 criteria analyzed). In spite of its frequency, in only one case the criterion used was blatantly irrelevant to the service procured (reverse auction 765701 0007/2017 – Section 9.6.3.5). In the other cases, the criterion might not be the most reasonable, but at least it would not be an obvious case of inadequacy; for instance, demanding *experience in architectural design*, which does not necessarily include experience with design for renovation, for services that included design for renovation.

9.10.2 Actual policy

Given their frequency, the remaining practices listed on Table 41 can be said to make up actual policy, namely *bundling different services in the same item; employing imprecise*

classification from CATSER; indiscriminately using reverse auctions; not using prize competitions; using criteria without definition; not informing quantity of service; and *not requiring minimum quantity of capacity*.

For understanding how the practices above can constitute actual policy, I employed pattern coding, as mentioned in Section 8.7. From this list of recurring practices, I tried to discover what they have in common, and in which way such practices can be translated into patterns of decisions. I found four dominant patterns of practice, which I list below.

1. Privileging reverse auctions regardless of the nature of the service – two practices constitute this policy: *indiscriminately using reverse auctions* and *not using prize competitions.*
2. Procuring different services in the same item – the practice of *bundling different services in the same item* constitute this actual policy.
3. Shortcutting the specification of services – two practices comprise this actual policy: *employing imprecise classification from CATSER* and *not informing quantity of service*.
4. Devising imprecise criteria – two practices make up this policy: *using criteria without definition* and *not requiring minimum quantity of capacity*.

The patterns of practice listed above may be the result of evidently arbitrary decisions, such as *bundling different services in the same item*, or they may be the result of operational discretion, such as *not requiring minimum quantity of capacity*. However, they do add up to actual policies that contradict intended policies; they have become expected organizational behaviour.

To provide a clearer portrait of how they are related, in Table 42 I present the connection between intended policies, frequent practices that do not comply with intended policies, and resulting actual policies. In the first column I included the source of the intended policy. I will discuss these actual policies in the next chapter.

Table 42 - Intended policies and actual policies

Intended policy	**Practice**	**Actual policy**
Reverse auctions can only be used for common goods and services (Law 10.520, Art. 1)	Indiscriminately using reverse auctions	Privileging reverse auctions regardless of the nature of the service
Architectural services should be procured preferably by means of prize competitions (Law 8.666, Art. 13 § 1)	Not using prize competitions	
Each service must be procured by means of its respective item (TCU 2014, 31)	Bundling different services in the same item	Procuring different services in the same item
Each item should be classified according to the CATSER table, reflecting the nature of the service procured (IN-5 Appendix V item 2.1.b)	Employing imprecise classification from CATSER	Shortcutting the specification of services
The quantity of service procured must be informed in solicitation documents (IN-5 Appendix V items 2.1.a, 2.4.a)	Not informing quantity of service	
Technical criteria must include capacities that are relevant to the services procured (Law 8.666, Art. 30, § 1, II)	Using criteria without definition	Devising imprecise criteria
The quantity of capacities required should be informed in solicitation documents (IN-5 Appendix VII-A item 10.3.a)	Not requiring minimum quantity of capacity	

10 Discussion

In previous chapters I analyzed technical criteria for the procurement of architectural services using the concept of discretion, drawn on street-level bureaucracy theory. This theory posits that bureaucrats' discretion may enable practices that contradict regulations. Accordingly, I identified a number of instances where actual policy – understood as the dominant patterns of practice – contradicts intended policy. In line with street-level bureaucracy theory, results of this study reveal that procurement officials, working under the limits of their formal discretion and sometimes extrapolating them, produced policies that are "biased in ways unintended by the agencies whose policies are being implemented or are antithetical to some of their objectives" (Lipsky 1980, 83).

In the following sections, I will discuss actual policies found in this inquiry and their consequences, as proposed by street-level bureaucracy theory. Given the problem-solving character of this study, I will also approach the conditions that enable actual policies and propose recommendations for policy-makers and practitioners.

10.1 Actual policies diverging from intended policies

Street-level bureaucracy theory aims to identify actual policy, seen as the dominant patterns of practice, that conflicts with intended policies devised by policy-makers. Below I will relate the actual policies identified in this inquiry to the main concepts that structured the results, namely solicitation methods, services procured and technical criteria.

10.1.1 Actual policy related to solicitation methods

From the analysis of patterns of practice concerning solicitation methods I identified the policy of *privileging reverse auctions regardless of the nature of the service*. Two practices constitute this policy: indiscriminately using reverse auctions and not using prize competitions. Indiscriminately using reverse auctions contradicts Law 10.520. Not using prize competitions could be considered a discretionary decision stemming from an

interpretation of IN-5. Nevertheless, this practice goes against what is intended by Law 8.666, as reviewed in Section 9.8.2. I discuss these issues below.

10.1.1.1 Not using prize competitions

Law 8.666 establishes that prize competitions are the preferred method for procurement of specialized technical professional services, including architectural projects. However, this inquiry shows that there was zero procurement for architectural services carried out by means of prize competitions in 2017.

At first sight, this looks like a plain case where actual policy is at odds with intended policy. Yet, as seen in the literature review (Section 4.2), prize competitions are most appropriate for services that require unusual solutions or for services including a strong aesthetic concern, and they are normally employed for new construction, not for renovation or restoration. This means that only architectural services concerning the pre-design phase for new construction would be fit for prize competitions. In this study, this type of service corresponded to less than 4% of items procured (4 out of 104 items, as reviewed in Section 9.3.3).

Given this issue, we may question the reasonability of the intended policy. On the one hand, CAU-BR and IAB have repeatedly reminded procurement officials that prize competitions are the preferred method for procurement of architectural services according to Law 8.666. In this regard, it would be a logical move to let practicing architects instead of procurement officials, who may have no knowledge on architecture, evaluate the skills of other architects. On the other hand, one can hardly endorse prize competitions for all types of architectural projects, as mentioned in the paragraph above. For instance, it would be a waste of time and resources promoting a prize competition for the design of a parking lot or for the design of a common office renovation.

It is also noteworthy the silence of IN-5 on prize competitions as a solicitation method for procurement of services (Section 6.2.5.2). One would expect that IN-5 would implement prize competitions, given the preference established by Law 8.666. However, as noted by

Professor Raso, “legislative frameworks may remain ‘as silent as possible’ on particularly complex or controversial matters, leaving administrators to decide these issues at the front lines” (2018, 43). This is the case of IN-5 and prize competitions. The lack of a more detailed framework for the application of prize competitions may discourage procurement officials in this regard.

10.1.1.2 Indiscriminately using reverse auctions

The use of reverse auctions for professional services, including architectural services, is questionable. Reverse auctions may lead to a race to the bottom of prices, threatening the feasibility of the service (Fernandes 2016, 133; Guarnieri and Gomes 2019, 2). The gambling character of reverse auctions was clear in two of the cases studied here – reverse auctions 158720 0004/2017 and 787700 0006/2016 (Sections 9.9.2 and 9.9.3). This is a problem that may compromise procurement of any type of items, but it is more troublesome when it regards a service where quality has a significant impact on the outcomes, such as architectural services. Results in this study (Section 9.3.6) showed many instances of reverse auctions where the discrepancy between estimated values and contracted values was very high, which could be an indication of prices that are not feasible. Even so, it is not known to what extent very low contracted values, as those seen here, can lead to problems during the execution of the service. In two of the cases studied – reverse auctions 200108 0008/2017 and 787700 0006/2016 (Sections 9.9.1 and 9.9.3) – it is quite reasonable to presume that the low contracted value was a cause for undesired outcomes. Yet, this remains anecdotal evidence. For a better understanding of this issue, it would be necessary a study focusing on price feasibility.

Given the inherent complexity of architectural services, as reviewed in Section 4.1.2, one could conclude that reverse auctions would be unfit for procurement of such services. From the analysis of the regulatory framework and the concrete cases, however, one may contend that reverse auctions can reasonably be used in procurement of services exclusive for architects that do not regard a specific project, namely outsourced architectural services. In such occurrences, there is no technical dimension inherent to the service, as discussed in

Section 4.4, and thus any member of the professional order would be qualified to perform these services. Reverse auctions could also be employed, albeit more questionably, in other cases where it is evident that any architect could perform the service, such as the design of a parking lot or the production of "as built" landscape drawings. Still, under a strict interpretation of Law 8.666, even outsourced architectural services ought not to be procured by means of reverse auctions, since it is not possible to measure their performance and quality by means of usual market specifications (Castro and Lopes 2004, 327).
The problems associated with the indiscriminate use of reverse auctions confirm that the harm of contradictory rules surfaces when people try to apply such rules, as mentioned in Section 6.3.

10.1.2 Actual policies related to services procured

The patterns of practice concerning services procured do not regard the services themselves, but rather the way the services are procured. I found two policies related to this matter.

The first policy is *procuring different services in the same item.* The practice of bundling different services in the same item constitute this actual policy. This practice violates IN-5. It may lead to the use of inadequate criteria for at least one of the bundled services. For instance, when architectural and engineering services are bundled, technical criteria may privilege the choice of an engineer, which can compromise the quality of the architectural service performed. That was the case in reverse auction 200108 0008/2017, discussed in Section 9.9.1. In that reverse auction, an engineering firm was engaged for performing architectural services, without an architect in their workforce. This might have led to their desertion of the contract.

The second policy is *shortcutting the specification of services.* Two practices comprise this actual policy: employing imprecise classification from CATSER and not informing quantity of service. In both cases, procurement officials fail to provide a precise description of the service procured. These may be considered discretionary practices, for regulations do not explicitly describe how services should be specified, and the CATSER table leaves

ample room for confusion. Nevertheless, when imprecise classification is employed, transparency will be affected, since data related to procurement of a given service will not be accurate. Furthermore, this practice may prevent capable firms from bidding, since they would not be aware of a procedure regarding services they are able to perform. Lastly, when procurement officials do not inform the quantity of service procured, there is a direct effect on criteria that should be used, for the minimum quantity of a technical criterion depends on the quantity of service procured. In the absence of this information, it is not even possible to assess whether the criterion used respects the 50% maximum allowed by the regulatory framework. The consequence is that an unskilled bidder might win the contract. That was the case, amongst many other irregularities, in reverse auction 158720 0004/2017 (Section 9.9.2). In that reverse auction, the quantity of experience demanded was way under what could be considered reasonable when one accounts for the estimated cost of services procured.

10.1.3 Actual policy related to technical criteria

From the analysis of patterns of practice concerning technical criteria I identified the policy of *devising imprecise criteria*. Two practices make up this policy: using criteria without definition and not requiring minimum quantity of capacity. These could be regarded as instances of discretionary decisions, for the legal framework does not establish precisely how criteria must be described. Nevertheless, it does establish that criteria must be defined by means of objective parameters, as mentioned in Section 6.2.2.6. The use of imprecise criteria in procurement can lead to arbitrary decisions on bidders' capacities. Such decisions were the case in procedures 765701 0007/2017 and 787700 0006/2016 (Sections 9.6.3.5 and 9.9.3 respectively). In these instances, procurement officials' judgement may have led to the choice of winners that were not suitable to perform the services procured. Moreover, their decisions could be regarded as favoritism for one bidder. I will discuss further on this matter in the following section.

10.1.4 The matter of reflective judgement

The problems related to the actual policy of devising imprecise criteria may be seen as a matter of when (during which phase of procurement) officials undertake a reflective judgement. Devising a technical criterion necessarily implies a certain level of reflective judgement. For instance, is experience with design for a new library relevant for designing a new school? At one point, procurement officials need to rely on their experience, or their "prudence" (Aristotle 2003, 390; Aquinas 1960, 33, 280; Burke 1988, 80; Flyvbjerg 2001, 2), for making this kind of decisions, which ought to be framed by their formal discretion.

When procurement officials define capacities required and state them in the solicitation document, they use their reflective judgement during the pre-contractual phase of procurement, before soliciting bidders. This has two advantages. It gives the opportunity, for interested parties, to submit objections questioning the suitability of a problematic criterion, which may lead to its correction. It also provides an objective criterion to assess submitted bids, even though this objective criterion is the result of a reflective judgement. This was the case of procedure 152663 0005/2017, reviewed in Section 9.6.3.1.

When procurement officials opt for employing a vague capacity, such as *experience with services similar to the services procured*, they transfer their reflective judgement to the selection phase of procurement, when they choose the winning bid. At this point, it is too late to correct the criterion, and there is no objective parameter for judging submissions. This enables arbitrary decisions, as was the case of procedure 765701 0007/2017, reviewed in Section 9.6.3.5. It is thus better to make this reflective judgement before analyzing submissions than during their analysis – meaning that capacities required should be defined as objectively as possible during the pre-contractual phase of procurement.

The issue of minimum quantities required in a technical criterion falls on the same reflective judgement conundrum. On the one hand, there is no formula for calculating the optimal quantity of a capacity that would assure the contract is awarded to a sufficiently skilled bidder. On the other hand, not specifying a minimum quantity in the solicitation document enables a judgement of bidders' qualification lacking objectivity. Therefore, it

would be better to set a minimum quantity in the pre-contractual phase and to evaluate submissions accordingly. This was the case, for instance, in procedure 925138 0028/2017. Procurement officials were able to objectively judge the winners' qualification and dismiss a protest because they had established a minimum quantity in the solicitation document, as weighed in Section 9.6.3.6. By contrast, in procedure 254445 0291/2017 no quantity was established in the solicitation document. Thus, procurement officials had to dismiss a protest on this matter without an objective measure to support their decision, as reviewed in Section 9.6.3.9.

Still, the question of how much of a capacity should be required lingers. In some instances, it would be clear that not a lot of experience is required for the service procured. As Figure 27 shows (page 196), some criteria in this study required 10% or less of the quantity of the service procured, and these low figures were not the subject of protests – although the absence of minimum quantity was. In other instances, it might be sensible to request for as much as possible of a capacity. In such cases, regulations have already established the threshold of 50% of the quantity of the service procured. For those cases where this decision is not clear, procurement officials may employ the Aristotelian concept of virtue, which aims to prevent both excess and deficiency. Aristotle suggested that, when answers cannot be exact, one should aspire for the mean, based on past experiences (2003, 336, 346–47). Under this view, the values for the mean and for the mode reviewed in Section 9.5.2 may help procurement officials in their judgement.

10.2 Negative effects of actual policies

As street-level bureaucracy theory proposes, the problems of actual policies come up when their outcomes are "biased in ways unintended by the agencies […] or are antithetical to some of their objectives" (Lipsky 1980, 83). I mentioned earlier that the main objective in public procurement is usually the purchase of items that offer optimal value for procuring entities (Section 3.4). Nevertheless, in Brazil the main goals of public procurement are controlling corruption and assuring bidders are treated equally (Section 6.2). To analyze

unintended of antithetical effects of actual policies in relation to these objectives, it might be useful to employ the systems model discussed in Section 3.2.

What we have seen in this inquiry is that the conversion phase, when policies and regulations turn into practices, is not delivering optimal value for procuring entities' money. Privileging reverse auctions encourages the lowest bidder, not the most qualified bidder. Reverse auctions create a gambling environment that encourages bidders to plunge their prices. It is fair to reason that low-paid winning firms will have to sacrifice working hours which would otherwise be dedicated to refining conceptual designs or to identify interference problems amongst architectural projects and complementary projects. Procuring different services in the same item and shortcutting the specification of services reduces economic competition, thus also reducing the chances of a qualified bidder. Devising imprecise criteria increases the chance of an arbitrary choice of winning submissions, which may benefit unskilled bidders. Together, these actual policies lead to outputs of unskilled bidders being chosen for architectural services. Unqualified, low paid bidders are hardly going to produce high quality projects. In turn, the quality of construction works will suffer, threatening public organizations' outcomes.

In regard to the Brazilian regulatory framework's main goals, this research does not allow me to draw definite conclusions on the outcomes of controlling corruption. On the one hand, we have seen that actual practices do offer a relatively high level of transparency (Section 9.1.1), which is an element of policies for controlling corruption. On the other hand, devising imprecise criteria may be seen as a means for an arbitrary judgement of bidders' qualifications, which opens doors for corrupt activities. In what concerns the equal treatment of bidders, procurement officials' practices leave a lot to be desired. Actual policies such as not using prize competitions and indiscriminately using reverse auctions skew procedures towards unskilled, high-risk taking bidders who are willing to plunge their prices to win bids. That is detrimental to experienced bidders who would be able to provide a higher quality output, consequently decreasing the likelihood of successful outcomes for the procuring entity.

10.3 Conditions for discrepancy

This study revealed a number of discrepancies between intended policy and actual policy. Such discrepancies may be the result of negligence, including lack of awareness of rules, or of deliberate disrespect for rules (Russell [1954] 2014, 20; Guess and Farnham 2011, 19; Santos 2018, 241). As the street-level bureaucracy theory suggests, explanations for negligence or deliberate disrespect ought to be found in the context where decisions are made (Lipsky 1980, 17). Although I do not have the pretension to provide causes for these phenomena, it is thus important to consider the context that renders them possible. Three factors may be at stake here: the legal context of procurement officials' work; procurement officials' shortfall of needed skills; and scant oversight. I will comment on them below.

10.3.1 Legal context

The regulatory framework governing procurement officials' activities in Brazil is so complex that they find themselves in the situation described by Maynard-Moody and Musheno as "rule saturated but not rule bound" (2003, 10). In situations where rules are so abundant and sometimes contradictory, complying with all of them would not be attainable (Lipsky 1980, 14; Wilson 2000, 323; McCue, Prier, and Steinfeld 2020, 13). As reviewed in Section 6.2, the Brazilian legal framework is rule-intensive, and the opposition between IN-5, which gives precedence to reverse auctions, and Law 8.666, which gives precedence to prize competitions, is an example of contradictory rules regarding procurement of architectural services. In such a context, procurement officials may find it harsh to discern their formal discretion and translate it correctly into operational discretion.

10.3.2 Shortfall of needed skills

High-capacity agencies are the minority of Brazilian public organizations (Bersch, Praça, and Taylor 2017a, 164). In low capacity procuring entities, unskilled procurement officials may find themselves in charge of important and expensive procedures, making arbitrary or ill-informed decisions without being aware of this situation. As reviewed in Section 2.1, in this context procurement officials may replicate decisions that were made in past

procurement procedures, usually without questioning whether such decisions are suitable to the particular service being procured.

Even amongst high-skilled procurement officials, it is not realistic to expect that they have deep knowledge in every type of services and goods they must procure (Thai 2001, 40). In the context of architectural services, procurement officials and architects should share experiences and information on their respective fields for improving the odds of effective procurement procedures. However, this dialogue between bureaucrats and professionals can be very challenging (Thai 2001, 40). Hence it may be difficult for procurement officials to correctly translate the technical dimension of architecture into technical criteria.

10.3.3 Scant oversight

The lack of oversight enables arbitrary decisions without consequences for decision makers in Brazilian public procurement. Extreme cases of arbitrariness such as those reviewed in Sections 9.6.3.5 and 9.7.1.4 are only possible because there is no one watching out for these procedures. As discussed in Section 6.1.1, the Federal Audit Office does not hold enforcement power. Even if it did, procurement procedures have not been the focus of its attention. Procurement officials thus are subjected to little accountability. Under these conditions, there is not much incentive for procurement officials to improve their practice. For instance, it may seem safer to reproduce procedures that have already been employed by other procuring entities, given the regulatory framework contradictions on solicitation methods. Since most completed procedures employed reverse auctions without consequences for procurement officials, sticking to this solicitation method is bound to be their easiest and safest choice. Furthermore, in the unlikely event that they are questioned about their decisions, they may argue that their practices are standard amongst public organizations, which can be viewed as a blame avoidance strategy (Hood 2011, 17).

10.4 Recommendations for policy makers

The review above corroborates the argument of Arrowsmith, Linarelli and Wallace Jr (2000, 18), mentioned in Section 3.3, suggesting that an effective procurement system

depends not only on its regulatory framework but also on its procurement environment. The conditions for the discrepancies unveiled on this research are elements of the procurement system. For improving the Brazilian procurement system from a top-down perspective, policy makers should focus on these elements, as I discuss below.

10.4.1 Enforcement

Given the volume of procurement procedures, it is not reasonable to expect that the Federal Audit Office would review all procedures carried out by means of *Comprasnet*. In 2019 alone, more than 177 thousand procurement procedures were carried out in that platform[122].

As mentioned in Section 9.2.4, the value of procurement procedures for architectural services is generally low, thus they may not be worth the attention of the Federal Audit Office. Nevertheless, architectural services will generate high-value procurement procedures for construction. The quality of architectural services will have a substantial impact on construction itself. The value of architectural services may not represent a big chunk of an organization's budget, but construction generated by these services will. Consequently, procurement of architectural services deserves strong oversight.

This research did not focus on oversight, enforcement or accountability. Therefore, more research is needed for sound recommendations on these matters. Nevertheless, it is reasonable to expect that a stronger oversight is likely to improve enforcement of the regulatory framework, thus reducing cases of arbitrary practices.

10.4.2 Organization

As mentioned in Section 3.3.1.2, the literature on public procurement suggests that a centralized office for public purchasing can improve the procurement system. Such centralization should reduce incoherence amongst procurement procedures, such as those realized by IPHAN, reviewed in Section 9.3.5. Having a centralized platform for carrying out procedures, which is the case of *Comprasnet*, is a step in the right direction.

[122] https://www.gov.br/compras/pt-br/

Nevertheless, the creation of a centralized organization for public procurement might be elusive given the decentralized nature of the Brazilian federal administration. It might be more useful do build on *Comprasnet*'s success, making it simpler and improving transparency – for instance, the availability of data, as reviewed in Section 9.1.1, is likely to improve by means of a mechanism that would prevent payments to be made unless all mandatory documents are available in the system.

10.4.3 Personnel

The street-level bureaucracy theory suggests that, due to the high level of discretion held by procurement officials, managerial supervision or additional rules to frame discretion can do little to improve their efficiency. Governments would be better-off improving procurement officials' skills, as the literature reviewed in Sections 3.3.1.3 and 3.3.2.2 implied.

In this vein, it is advisable to invest in procurement officials' training, especially in refining their judgement. Such training should aim at improving coherence between services procured, solicitation methods and technical criteria. This research revealed that often their judgement regarding technical criteria will be situated in a grey zone – for instance, what experience would be compatible with the service *design for a parking lot*, or what quantity of experience is reasonable for the design of 500 square meters of new intensive care units in a hospital?

The choice of solicitation method is also an issue that deserves to be approached in a training program for procurement officials. This choice, again, depends on their judgement. As mentioned in Section 4.2, open tendering and reverse auctions are more suitable for selecting the lower price; request for proposals, for choosing a specific architect; and prize competitions, for choosing the best design. Under the Brazilian regulatory framework, however, these distinctions are not so clear-cut, because request for proposals and open tendering are in practice the same method. Procurement officials still must make discretionary decisions, based on their judgement, on whether a service requires the choice of an innovative design, which would call for prize competitions; or whether it requires the service of an experienced architect, which would call for a value-based open tendering (or

request for proposals/request for quotations, depending on the value); or whether a service only requires the cheapest service provider, which would call for a reverse auction.

Critically calling out past procurement procedures may enhance procurement officials' reflexive judgement, thus improving coherence between services procured, solicitation methods and technical criteria. Training programs based on case studies of real procedures could be particularly suitable for this goal (Flyvbjerg 2001, 82).

10.4.4 Regulatory framework

It would be tempting to improve decisions concerning technical criteria and solicitation methods by implementing further rules to guide procurement officials' discretion. But they already work in a very complex legal environment, comprising too many rules that do not constitute a coherent whole. Additional rules would likely be perceived as just more red tape, thwarting efficiency in procurement (Wilson 2000, 345; Maynard-Moody and Portillo 2012, 274).

The proposed bill discussed in Section 6.2.8 seems to be a step in the right direction, replacing the three main laws by a supposedly less complex one. Although its learning-curve costs can be high (Sclar 2000, 44–45), the new law is expected to simplify the regulatory framework of public procurement, thus reducing overall costs in the long term.

But what can be done specifically for addressing the difficulty to devise technical criteria for architectural services under the current regulatory framework? The Brazilian government has published guides for procurement of some types of services, namely surveillance, cleaning and transportation (Brasil 2019a). Procurement of architectural services has its own set of challenges, as discussed in this research. Given the financial impact of architectural services, it would be advisable to produce a guide for these services too. In what concerns the main points discussed in this inquiry, and in accordance with extant rules, I would suggest including the topics below in such a guide:

- To provide an objective judgement of bids, a defined capacity relevant to the service procured must always be included in technical criteria. If any experience is accepted, this should also be stated, but procurement officials should not employ the mere reproduction of contents of the regulation as a technical criterion.
- For the same reason, it is important to require a minimum quantity. Even if not much experience is needed, procurement officials should establish an objective threshold for measuring bidders' qualification. The average or the mode unveiled in this study (Section 9.5.2) may be employed as reference points for this matter.
- Prize competitions are not necessarily the best avenue for procurement of architectural services. Some services requiring specialized knowledge demand a strict analysis of specialized qualification, thus a value-based process, including evaluation criteria, should be preferred. Prize competitions would serve better as a solicitation method for services requiring particularly creative solutions or services demanding a subjective assessment of aesthetic qualities.
- Reverse auctions can only be used for services that do not regard a specific project – for instance, it could be used for contracting outsourced architects that would work in a regular basis for a procuring entity.

Despite the recommendations above, we must acknowledge that "general policies are no substitute for wise judgements", as philosopher Julian Baggini puts it (2008, 128). Therefore, investing in procurement officials' training still seems to be the best way for improving procurement procedures for architectural services in Brazil.

10.5 Recommendations for practitioners

The discrepancies unveiled in this study also underscore the need of improving practices in procurement of architectural services from a bottom-up perspective. In regard to technical criteria, procurement officials may be tempted to devise restrictive criteria to ensure only skilled bidders can be qualified. This strategy, however, must be balanced with the primary objective in procurement of fostering economic competition for achieving optimal allocation of resources. Enforcing strict criteria for procuring architectural services may

thus be counterproductive. As reviewed in Section 4.1.1, an architect's experience is not always pledge of a good quality project. Furthermore, too strict technical criteria would be unconstitutional, as mentioned in Section 6.2.1.

It can be argued that any Brazilian architect, member of their professional order, could be considered capable of executing services exclusive for architects. In this regard, procurement officials should avoid usurping the role of professional orders, since the latter are responsible for determining who are the professionals qualified in their fields. Nevertheless, it is hardly desirable to grant any service to any architect. Results of this study revealed instances where specialized knowledge is essential for accomplishing services procured. These were the cases of design for a pharmaceutical laboratory and design for restoration of heritage buildings. These services conjugate spatial design with skills that go beyond the average architect's skills, demanding knowledge that is not taught in architectural schools. These types of services, which are not restricted to the two mentioned above, could thus be classified as specialized technical professional services, under the definition proposed by Justen Filho, reviewed in Section 7.1.3.

Unfortunately, it is not possible to produce a list of all architectural services that could match the classification of specialized technical professional services. Procurement officials ought to use their prudence, framed by their formal discretion, to identify such cases. One particularly difficult instance would be the case of design for renovation or retrofit. This service is generally more complex than design for new construction. Thus, in some cases, such as the renovation of a hospital including a surgery center and rooms for sterilized materials (e.g., procedure 155124 0003/2017), the service would be considered a specialized technical professional service, whereas in other cases, such as renovation of an office (e.g., procedure 170217 0008/2017), it would not.

In what concerns solicitation methods and their relation to services procured, the contradiction between Law 8.666 and IN-5 leaves ample discretion for procurement officials, discretion that they have not used in line with the intended policy. In this regard, procurement officials must recognize that a law takes precedence over its regulations.

Therefore, they should classify architectural services as services of predominantly intellectual nature, thus precluding the use of reverse auctions as a solicitation method – bar procedures for contracting outsourced architects that would work on a regular basis for the procuring entity. This practice should improve the chances that an adequate solicitation method will be employed, enhancing the importance of technical criteria for the selection of a skilled architect, instead of the lowest price.

11 Conclusion

It is suggested that the conclusion of a thesis should sum up the main results, discuss the work in relation to the theory used, present contributions to the domain of study, underscore the original aspects of the inquiry, address limitations of the findings and propose new avenues for research (Phillips and Pugh 2010, 66–67). This chapter is thus divided accordingly, starting with a summary of main results, followed by implications of my findings to street-level bureaucracy theory and their contributions to the field of technical criteria within the field of public procurement, then a discussion on originality and limitations of this study, closing with suggestions for future research.

11.1 Summary of main results

In this section I reprise the main results of this study, in line with the research questions proposed.

What is the intended policy for the procurement of architectural services?

I approached the intended policy in Chapter 7. In Section 7.1, we have seen that, as a rule, these services should be considered services of a predominantly intellectual nature. Therefore, they should not be procured by means of reverse auctions. However, vague concepts and contradictions within the regulatory framework create discretion, allowing procurement officials to extensively use reverse auctions. In Section 7.2, I discussed the characteristics of technical criteria that may be employed for procuring architectural services, namely proof of experience related to the service procured and the quantity of such experience. In Section 7.3 we have seen that any type of architectural service may be procured, but these services must be properly classified as architectural services; they should not be procured alongside other types of services, such as engineering, bundled as only one item.

What solicitation methods are employed for the procurement of architectural services?

I reviewed the solicitation methods employed in procurement for architectural services in Section 9.2. Most of the time architectural services are procured by means of reverse auctions. No prize competition was carried out in the period studied.

What architectural services are procured?

In Section 9.3 I approached the matter of services procured. More than half of the items procured concern basic design or execution design of architectural projects, but most of the time they were not classified correctly as architectural services.

What technical criteria are used?

Section 9.4 reviewed the capacities required as technical criteria. In roughly half of the criteria studied here the capacity *experience with similar/compatible/relevant design* was employed, which may leave room for reflective judgements. In Section 9.5 I dealt with the quantity of criteria required. Very few procedures imposed a quantity above the legal threshold. However, in most cases no quantity was informed at all, which again leaves room for reflective judgements.

What are the actual practices of procurement of architectural services?

Section 9.8 synthesizes the practices observed in this study. The most common arbitrary practices are *not using prize competitions, bundling different services in the same item, indiscriminately using reverse auctions, not requiring minimum quantity of capacity*, and *employing imprecise classification from CATSER*. In Section 9.9 I portrayed some cases of procurement procedures, highlighting negative outcomes of arbitrary practices.

What are the dominant patterns of practice that add up to actual policy?

In Section 9.10 I discussed the dominant patterns of practice that added up to actual policy. Four dominant patterns were identified: *privileging reverse auctions regardless of the nature of the service, procuring different services in the same item, shortcutting*

the specification of services and *devising imprecise criteria*. As argued in Chapter 10, these actual policies go against the primary objective in public procurement, which is the purchase of items that offer optimal value for procuring entities. They do not contribute either to the main goals of public procurement in Brazil, which are controlling corruption and assuring bidders are treated equally.

11.2 Implications for street-level bureaucracy theory

Applying different theoretical frameworks to practice can lead to a greater understanding of procurement officials' work (Koala and Steinfeld 2018, 299). Here I presented an instance where street-level bureaucracy theory was applied for analyzing the work of procurement officials. As street-level bureaucracy theory proposes, results from this research confirm that administrative discretion can lead to a discrepancy between intended policy and actual policy. Although procurement officials cannot be considered street-level bureaucrats, the theory proved useful for unveiling unintended practices stemming from administrative discretion in their case. Procurement officials do not interact directly with citizens, yet these unintended practices yield effects on the population. In the case of procurement of architectural services, undesired outcomes can take the shape of reduced lifetime, costly maintenance or inadequate spaces of public buildings and structures due to low-quality architectural projects.

Unlike recent studies based on street-level bureaucracy theory, which focus on bureaucrats' perception of discretion (for instance, Henderson, Țiclău, and Balica 2017), this study focuses on discretion in practice; in other words, on operational discretion which adds to actual policies. The actual policies produced by procurement officials are different from those used by street-level bureaucrats, as identified by Lipsky. This difference is in line with previous studies that employed street-level bureaucracy theory to assess the work of other types of bureaucrats, as mentioned in Section 5.4. Instead of the general practices found by Lipsky – rationing services, controlling clients, husbanding resources and managing consequences (Section 5.3) – procurement officials in this study engaged in actual policy that is specific to the nature of their work. Namely, they privilege reverse

auctions regardless of the nature of the service, they procure different services in the same item, they shortcut the specification of services and they devise imprecise criteria.

The unintended practices observed are only possible in a procurement environment which allows for great discrepancies, as those found in this study. The conditions for discrepancy reviewed in Section 10.3, namely the complex legal context of procurement officials' work, procurement officials' shortfall of needed skills, and scant oversight, all lead to a high level of administrative discretion. As posited by street-level bureaucracy theory, this high level of discretion is the enabler of divergences between intended policy and actual policy.

This research also endorses comparing intended policy and actual policy as a useful tool for finding unintended outcomes, as proposed by street-level bureaucracy theory. In this inquiry, I unveiled discretionary and arbitrary decisions nested in the practice of procurement officials. The main difficulty of this approach lies in assessing actual policy. Public documents concerning procurement turned out to be a valuable source of information in this inquiry, in spite of the initial challenges I faced to retrieve relevant data. This research has thus enlarged street-level bureaucracy theory's field of application into the domain of public procurement.

11.3 Contributions to research on technical criteria in public procurement

Studies on technical criteria in procurement are very few. Concerning technical criteria in general, researchers have underlined the need of studies focused on successful criteria and their contexts in order to limit undesired behaviour (Ruparathna and Hewage 2015, 1). It is also suggested that a more comprehensive understanding of qualification and evaluation activities in public procurement is needed for proper use of discretion (Patrucco, Luzzini, and Ronchi 2017, 262–63). Concerning technical criteria in procurement of architectural services, researchers have suggested that comparing technical criteria in different jurisdictions (Sporrong 2014, 33) and analyzing the relationship between technical criteria demanded and results in procurement (Volker 2012, 757) are two avenues to be pursued. In what pertains to the Brazilian context, there is a lack of empirical studies about

technical criteria; such studies could be a starting point for improving the selection of bidders (Lotta, Pires, and Oliveira 2014, 465; Fernandes 2016, 428; TCU 2019b, 49).

By describing current practices regarding procurement of architectural services in Brazil, this study fills some of the gaps mentioned above. First, I have provided a detailed description of technical criteria and the context in which they were used, including services procured, solicitation methods employed, values of procedures, eventual protests and cancellations (Sections 9.2 through 9.7). Second, I have provided an account of procurement officials' discretionary decisions in Sections 9.6.3, 9.7.1 and 9.9, where I analyzed protests, cancelled procedures and other selected cases of procedures, respectively. This account shows that procurement officials often ignore regulations when they devise and when they evaluate technical criteria. Third, the description of criteria and their context may also enable future research comparing criteria employed in Brazil with criteria employed in other jurisdictions. Finally, the analysis of cancelled procedures due to technical criteria (Section 9.7), as well as the analysis of cases unveiling undesirable results (Section 9.9), contribute to the understanding of the relationship between technical criteria demanded and results in procurement.

I also propose a conceptual perspective for approaching technical criteria for architectural services. As suggested in Figure 8 (Section 4.4), I analyzed technical criteria as the interface between the technical dimension of architecture and criteria for selection of bidders in procurement. Thus, relevant criteria for architectural services are those that correctly translate this technical dimension into technical criteria. This view is compatible with the Brazilian regulatory framework, which provides that criteria demanded must be relevant to the subject matter of procurement.

Finally, I identified the problem of discrepancy between intended policy and actual policy, drawing on street-level bureaucracy theory. Procurement officials use their discretionary powers to determine what is technically relevant in a service. Yet, some decisions made by procurement officials can be considered unintended or arbitrary. Section 10.2 accounts for the negative effects of the actual policy, especially the bias towards unskilled, high-risk

taking bidders. Results in this study corroborate findings from previous research on technical criteria, mentioned in Section 4.3, showing that there is a disconnection between actual policy and intended policy (Sporrong 2011, 71). This inquiry can thus be regarded as a contribution to the awareness of unintended and arbitrary decisions in procurement of architectural services.

11.4 Research originality

Table 43 below presents a synthesis of this study's contributions in relation to previously identified needs of research in the field, drawing the relation of these contributions with originality in research, as proposed by Phillips and Pugh (2010, 69). In this regard, this research can be considered original for three reasons. First, it unveils data that is available, but that was not used for producing knowledge. I organized the data obtained from *Comprasnet* and other publicly available sources to look at new areas of the public procurement discipline, producing information that was used for unveiling a problem. Second, it places great emphasis in cross-disciplinarity. In this research I borrowed concepts from the literature on the fields of public procurement, administrative law and architecture, and combined them with a review of the Brazilian regulatory framework, to produce the portrait of an issue in public administration. This interaction of disciplines is usually needed for tackling problems in the real world (Phillips and Pugh 2010, 59). Third, it applies new evidence to an old issue. By analyzing procurement officials' practices under the lens of street-level bureaucracy theory, I was able to devise principles for guiding their discretionary decisions.

Table 43 - Research needed, contribution and originality, based on Phillips and Pugh (2010, 69)

Research needed	Contribution	Originality
More information on criteria used and their context (Ruparathna and Hewage 2015, 1)	Description of technical criteria and respective services procured	• Carrying out new empirical work • Setting down new information for the first time • Looking at new areas of the discipline
Comparison of criteria between jurisdictions (Sporrong 2014, 33)	Portrait of criteria in Brazil makes possible comparing with other jurisdictions	
Relationship between criteria and results of procurement procedures (Volker 2012, 757)	Analysis of criteria which led to protests or cancellation of procurement	
	Analysis of cases showing undesirable results from discretionary decisions	
Exploration of conceptual or theoretical frameworks (Koala and Steinfeld 2018, 299)	Use of theoretical framework from public administration in the context of architecture and administrative law	• Being cross-disciplinary
Guidance for proper use of discretion (Patrucco, Luzzini, and Ronchi 2017, 262–63)	Principles for guiding discretion on technical criteria and solicitation methods	• Bringing new evidence to bear on an old issue

11.5 Research limitations

The street-level bureaucracy theory is useful for revealing the discrepancies between intended policies and actual policies. Nevertheless, the theory alone does not provide a deeper understanding on procurement officials' motivations for acting in ways that are not in accordance with intended policies. As mentioned above, this study unveiled a number of conditions that afford such discrepancies. But it is not possible to know for sure what was going on in procurement officials' minds when they opted for a specific criterion or for a specific solicitation method. For a deeper understanding of motivations, a research based on ethnographic approaches and storytelling is more likely to provide fruitful results.
The conditions for discrepancy found here may provide a steppingstone for such research.

It is also important to mention limits of this study in what concerns architectural services. It was out of my scope to analyze possible aesthetic criteria for architectural services. Therefore, the aesthetic dimension of an architectural service, which could be a criterion for selecting an architect under the Brazilian regulatory framework – by means of prize competitions – was not analyzed. It should be noted that aesthetic criteria are hardly used in practice. There was no prize competition amongst the procedures analyzed, which spanned a whole year.

Finally, there are limitations due to the cross-sectional nature of this study. Only procurement procedures available in *Comprasnet* during year 2017 were included in this research. Documents in *Comprasnet* provide an accurate portrait of practices in Brazilian federal public organizations. Nevertheless, state and municipal organizations were mostly left out of this research. One may contend that the framework law is the same for all public organizations, and that we may expect the procurement environment to be comparable across different jurisdiction levels. Hence, we could hypothesize that practices regarding technical criteria would be similar across all types of organizations. Yet, it might be possible that state and municipal public organizations behave differently than federal ones, since they may establish more detailed rules for their own procurement processes, as long as these rules comply with federal laws. Furthermore, limiting procedures to those carried out in year 2017 prevents us from generalizing the results outside this period.

11.6 Future research

Through this thesis, I spotted some shortfalls on knowledge concerning public procurement which I could not fulfill. I elaborate here on the points that I deem most important for improving scholarship on this matter.

In what regards the cross-sectional nature of this study, new research focussing on extended periods would enable a broader generalization. In addition, a longitudinal study encompassing periods before and after the adoption of the proposed bill (Section 6.2.8) could also offer an insight on whether procurement officials change their practices in light

of the new law. It can be expected that a clearer definition, provided by the new law, of how architectural services ought to be procured might improve related practices of procurement. Also, to extend our knowledge to state and municipal organizations in Brazil, future research could employ concrete case studies dealing with them, as suggested by professor Haridimos Tsoukas (2009, 295). However, a broad study would be very challenging, since information is spread amongst 27 different databases in what concerns organizations under state jurisdictions, and thousands of websites and databases in what concerns municipal organizations, assuming information is available. Researchers would need to employ a sound sampling strategy to assure feasibility and validity of a study of this kind.

In regard to transparency, I mentioned in Section 9.1.1 that, in spite of some difficulties, I was able to obtain all documents that were relevant for this research. This result could serve as a benchmark for comparative studies on levels of transparency. For instance, previous research (Section 4.3) showed that it was difficult to gain access to procurement documents in the Netherlands.

Another fruitful path for research concerning transparency is analyzing the quality of information available. In this inquiry, I have noticed that some practices in procurement harmed the quality of information, most notably bundling different services in the same item and employing imprecise classification of services. Still, it is not known if such practices are restricted to architectural services or are widespread. Furthermore, it is not known whether these practices are concentrated in Brazilian federal organizations; they could also be commonly employed by state and municipal procuring entities.

Like transparency, values of procured services were not the focus of this research. It must be noted, however, that estimated values of services may have an impact on technical criteria. As reviewed in Section 6.2.2.6, the choice of criteria depends on the value of services procured. Therefore, it could be argued that criteria used in a procedure could be biased when procurement officials provide a questionable estimated value of services. The remarkable discrepancies between estimated values and contracted values hint at

the need for research on this matter. In this vein, at least three lines of investigation seem fruitful. First, assessing the quality of estimations carried out by procurement officials might shed light on reasons for such discrepancies. Second, it would be useful to assess the quality of services that were contracted for a very low price, or whether there were amendments on the contracted values during the execution of these services. Such information could suggest there should be a lower limit for prices submitted by bidders. Third, an inquiry on values of other types of services could show whether discrepancies between estimated values and contracted values are systemic or restricted to architectural services.

An evaluation of the outcomes of architectural services could also shed light on the relation between value and quality of services. Although it would be difficult to evaluate quality, some objective measures could be employed as a proxy, such as amendments on values during construction, users' satisfaction, maintenance costs, or achieving sustainability certifications. Studies on the outcomes of architectural services could also enable comparative studies between jurisdictions with diverse approaches regarding procurement of these services. In this vein, it could be fruitful to relate solicitation methods and quality of services. For instance, a systematic study exposing the low quality of services procured by reverse auctions would be highly valuable for procurement officials.

It is not clear at this moment if the discrepancies found in this study are limited to architectural services. Research applying the theoretical framework and the methods used here to other types of services is bound to produce useful results.

Finally, not all projects leading to construction are contracted out. Many architectural projects are produced in-house by public organizations. It is not known if the quality of in-house projects is lower than contracted out projects. An evaluation of the outcomes of architectural services, as suggested above, could also focus on comparing these two different sources of architectural projects. This information would be useful for administrators when they have to decide how these services ought to be provided.

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Appendix 1: List of UASGs

UASG	Procuring entity
020001	Senado Federal
040001	Supremo Tribunal Federal - STF
080002	Tribunal Superior do Trabalho - 11ª Região/AM
080016	Tribunal Superior do Trabalho - 10ª Região/DF
080026	Tribunal Superior do Trabalho - 24ª Região/MS
090003	Justiça Federal - Seção Judiciária do Pará
090005	Justiça Federal - Seção Judiciária no Piaui
090012	Justiça Federal de 1º Grau – Seção Judiciária da Bahia
090023	Justiça Federal - Seção Judiciária do Distrito Federal
090027	Tribunal Regional Federal 1ª Regiao
090038	Justiça Federal - Seção Judiciário do Estado do Tocantins
110322	Gabinete de Segurança Institucional da Presidência da República
120196	Ministério da Defesa - Grupamento de Apoio da Saude
120626	Ministério da Defesa - Grupamento de Apoio de Pirassununga
152663	Instituto Federal de Educação, Ciência e Tecnologia Catarinense – Campus Luzerna
153032	Universidade Federal de Lavras - MG
153038	FAPEX - Fundação de Apoio à Pesquisa e à Extensão
153047	Hospital Universitário Cassiano Antônio Moraes
153052	Universidade Federal de Goiás
153079	Universidade Federal do Paraná
153103	Universidade Federal do Rio Grande do Norte
153167	Colégio Pedro II
154032	Universidade Federal de Ciências da Saúde de Porto Alegre
154046	Universidade Federal de Ouro Preto
154070	Hospital Universitário Júlio Muller
154618	Instituto Federal Baiano - Campus Governador Mangabeira
155008	Hospital Universitário do Piauí
155009	Hospital Universitário de Brasília
155124	Hospital Universitário Maria Aparecida Pedrossian
158009	Instituto Federal do Parana
158156	Instituto Federal de Educação, Ciência e Tecnologia do Acre – IFAC
158275	Instituto Federal de Educação, Ciência e Tecnologia de Minas Gerais
158304	Instituto Federal de Educação, Ciência e Tecnologia do Sul de Minas Gerais Campus Machado
158341	Instituto Federal de Educação, Ciência e Tecnologia de Rondônia Campus de Colorado do Oeste
158377	Instituto Federal de Educação, Ciência e Tecnologia do Norte de Minas Gerais Campus Salinas
158658	Universidade Federal da Integração Latino-Americana
158720	Universidade Federal do Sul da Bahia

UASG	Procuring entity
160036	Comando Militar do Nordeste 6ª Região Militar
160066	Comissão Regional de Obras da 11ª Região Militar
160078	Colégio Militar de Campo Grande
160163	Comando da 8ª Região Militar
170010	Secretaria da Receita Federal do Brasil
170018	Superintendências Regionais da Receita Federal - 1a. Região Fiscal
170088	Superintendência Regional da Receita Federal - 6ª Regiao/MG
170131	Superintendência de Administração do Ministério da Fazenda/SP
170134	Delegacia da Receita Federal do Brasil em Araçatuba/SP
170217	Delegacia da Receita Federal do Brasil em Belém - DRF/BEL
170388	Delegacia da Receita Federal do Brasil em Dourados/MS
170394	Corpo de Bombeiros Militar do Distrito Federal
170516	Delegacia da Receita Federal em Anapolis
179085	Banco do Nordeste do Brasil S/A
200035	Procuradoria da República em Minas Gerais
200038	Procuradoria da República no Espírito Santo
200043	Procuradoria da República no Estado do Rio de Janeiro
200108	Procuradoria Regional do Trabalho - 18ª Região
200121	1ª Superintendência de Polícia Rodoviária Federal
200139	2º Distrito Regional de Polícia Rodoviária Federal/TO
200207	Procuradoria da República da 5ª Região
201014	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
250025	Ministério da Saúde - Núcleo Estadual em Minas Gerais
254445	Instituto de Tecnologia em Imunobiologicos - Bio Manguinhos
254462	Fundação Oswaldo Cruz
255025	Fundaçao Nacional de Saude - SP
255026	Fundação Nacional de Saúde - Coordenacao Regional de Sergipe
343003	IPHAN - 3ª Coordenação Regional - MA
343007	IPHAN - 7ª Coordenaçao Regional em Salvador
343011	IPHAN - 11ª Coordenação Regional
343034	Instituto do Patrimônio Histórico e Artístico nacional - IPHAN/MS
343036	IPHAN - 19ª Superintendência Regional em Teresina
343041	Instituto do Patrimônio Histórico e Artístico Nacional - IPHAN Superintendência do Estado do Amapá
344001	Fundação Casa de Rui Barbosa
380941	Delegacia Regional do Trabalho em Minas Gerais
389086	Conselho Regional de Engenharia e Agronomia de Mato Grosso do Sul
400066	Superintendência Regional do Trabalho no Espírito Santo
420001	Ministério da Cultura
443001	Agência Nacional de Aguas
530001	Ministério da Integraçao Nacional

UASG	Procuring entity
765701	Hospital Central da Marinha
765705	Unidade Integrada de Saúde Mental da Marinha
765706	Sanatorio Naval de Nova Friburgo
767000	Diretoria de Assistência Social da Marinha
787700	Hospital Naval de Brasilia
925138	Banco Central do Brasil - Gerência Administrativa em São Paulo
925152	Conselho Regional de Contabilidade de Minas Gerais
925175	CONFEA - Conselho Federal de Engenhaa e Agronomia
925387	Prefeitura Municipal de Belém
925856	Secretaria de Estado de Saúde Pública do Pará
925942	Tribunal de Justiça do Estado do Pará
926066	Companhia de Desenvolvimento Econômico do Pará - CODEC
926195	Universidade Estadual de Roraima
926245	Centrais de Abastecimento do Distrito Federal S.A.
926697	Assembleia Legislativa do Estado do Rio Grande do Norte

Appendix 2: Data extraction for CATSERV table

Data regarding the service type codes used in the procurement electronic platform (CATSERV table) are available on the site http://compras.dados.gov.br/docs/home.html.

To have access to these data, I created a file on MS-Access, and then I imported XML tables directly from the site. However, it is only possible to have access to sets of 500 records. There were 2039 service type codes, therefore I had to import six datasheets, using the following addresses:

- http://compras.dados.gov.br/servicos/v1/servicos.xml
- http://compras.dados.gov.br:8080/servicos/v1/servicos.xml?offset=500
- http://compras.dados.gov.br:8080/servicos/v1/servicos.xml?offset=1000
- http://compras.dados.gov.br:8080/servicos/v1/servicos.xml?offset=1500
- http://compras.dados.gov.br:8080/servicos/v1/servicos.xml?offset=2000
- http://compras.dados.gov.br:8080/servicos/v1/servicos.xml?offset=2500

I named the imported tables *T_servicos_0000, T_servicos_0500, T_servicos_1000, T_servicos_1500, T_servicos_2000, T_servicos_2500,* respectively.

Once all datasheets were imported, I appended all of them into a single table using the following command:

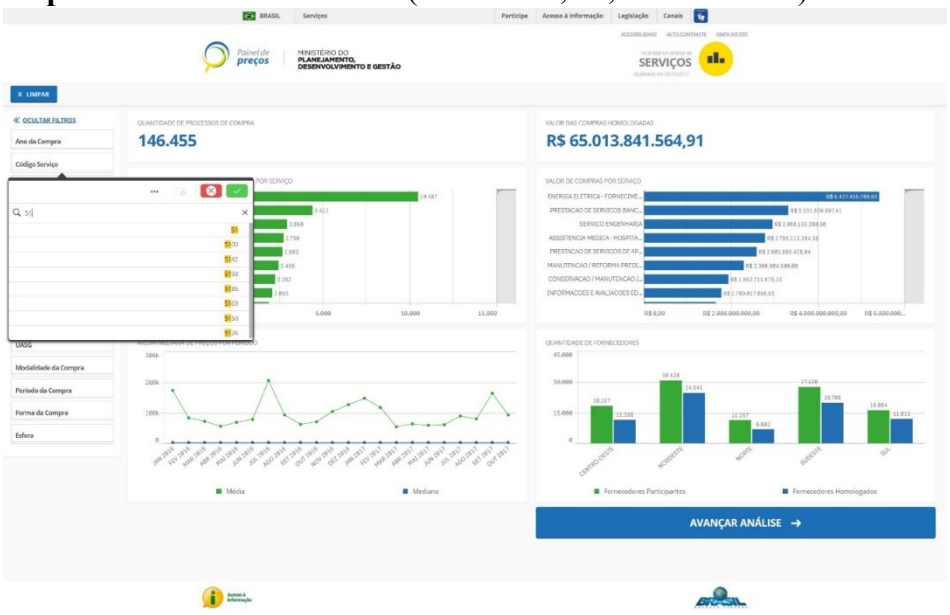
Create Query > SQL mode:
INSERT INTO T_servicos_0000
*SELECT T_servicos_1000. **
FROM T_servicos_1000;

This operation must be done for every datasheet, *T_servicos_0000* being the final table which will contain all records, and *T_servicos_1000* being one of the tables containing sets of 500 records. In the end, I had one table *T_servicos_0000* containing 2039 records.

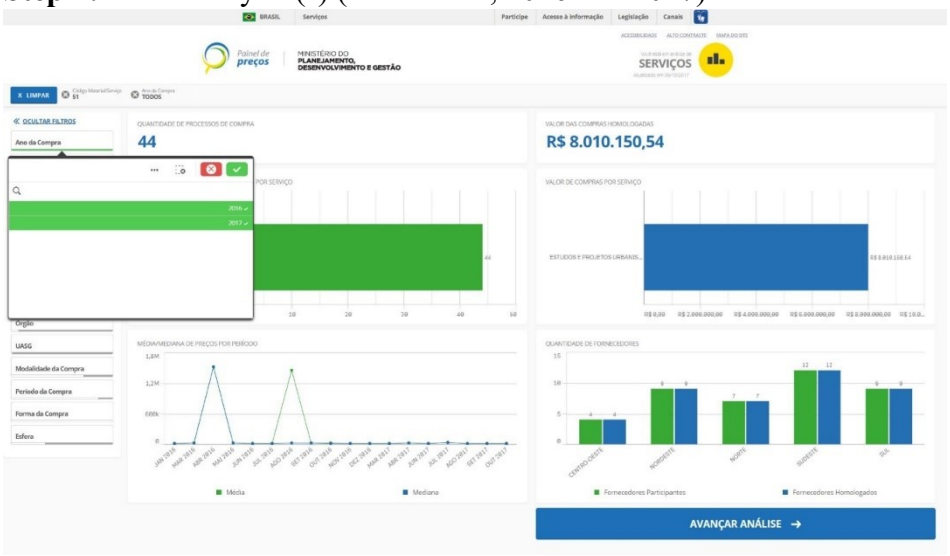
Appendix 3: Accessing procurement documents from *Painel de preços*

It is possible to access a list of procurement procedures and their respective procurement documentation by the site http://paineldeprecos.planejamento.gov.br/PainelServicos.html, following the steps below. Steps 4 to 10 need to be repeated for each procedure.

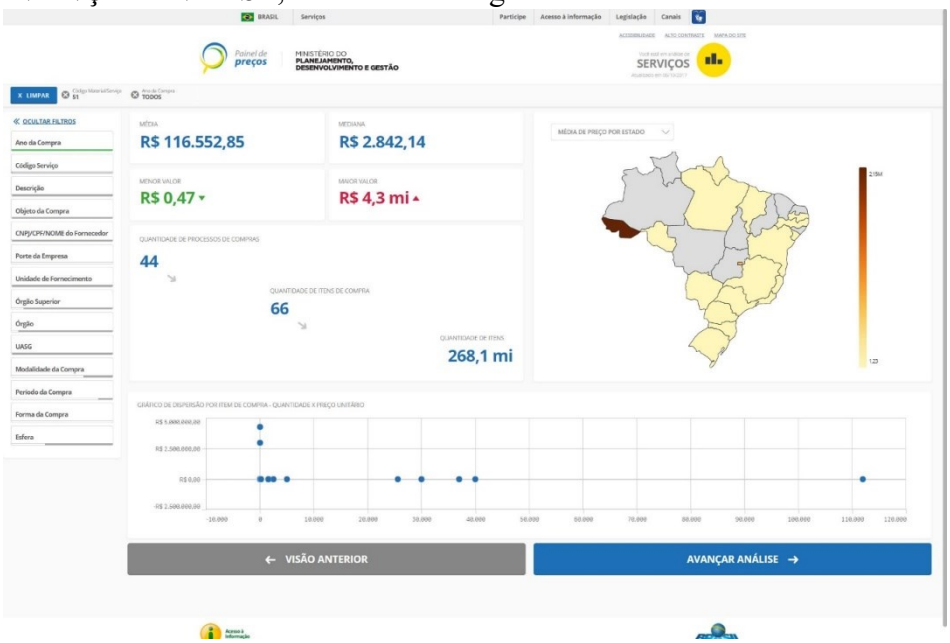
Step 1: Select the service code (in this case, 51, 78 and 20591).



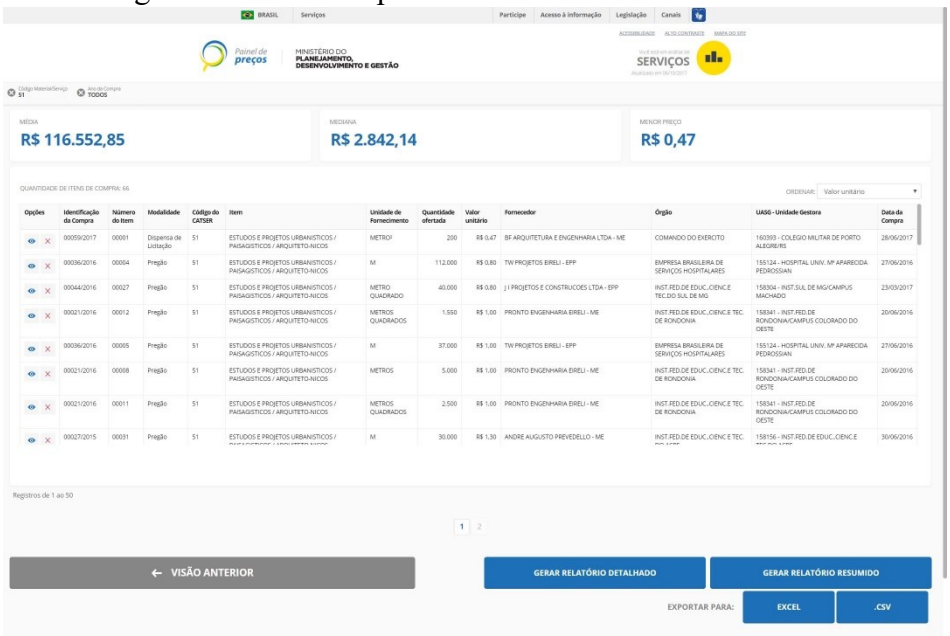
Step 2: Select the year(s) (in this case, 2016 and 2017).

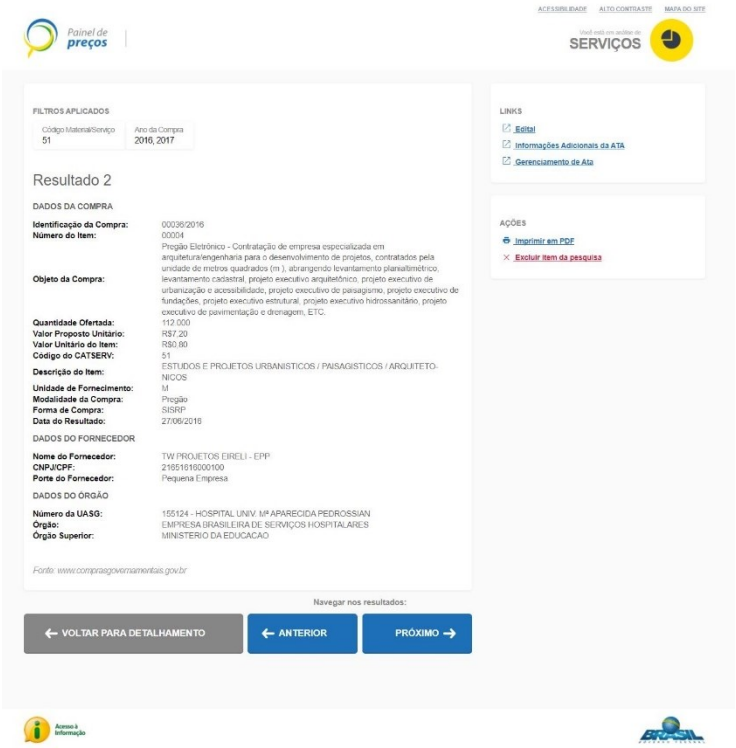


Step 3: The results show the totals for the types of procedures selected. Click on *AVANÇAR ANALISE*, at the bottom right.



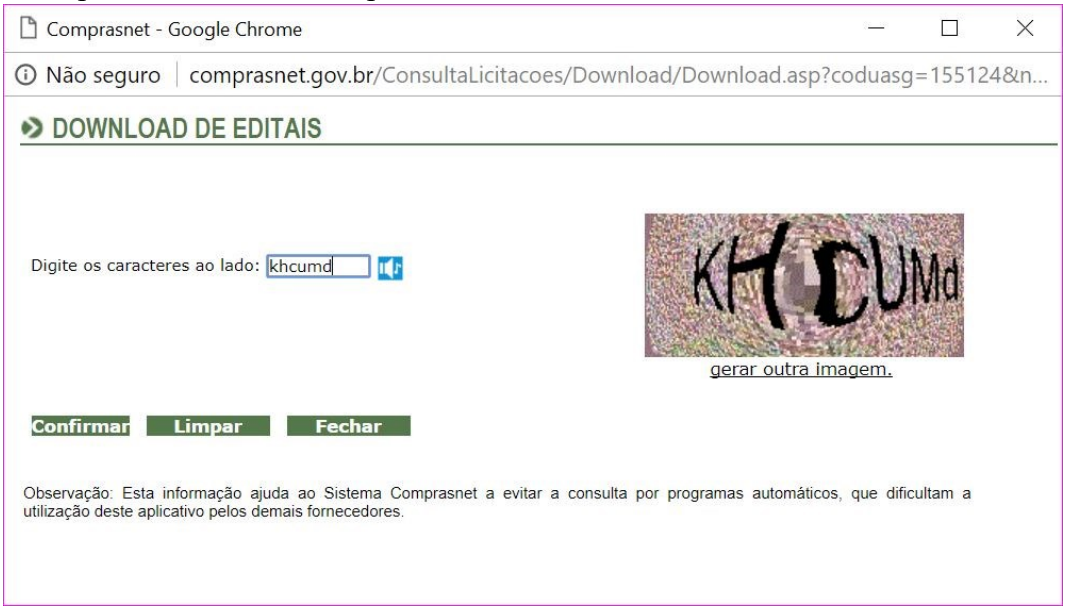
Step 4: The system lists all the selected procedures. Click on the eye-shaped blue icon at the left to get the details of a procedure.



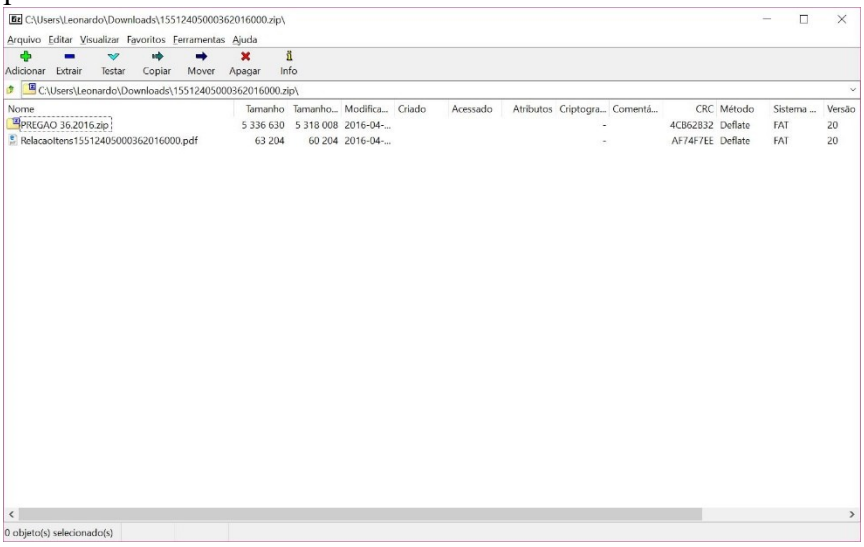


Step 5: Under the column "Links", at the top right, there are links to the procurement documentation ("Edital") and to information concerning protests ("Informaçoes adicionais da ATA"). To download the documentation, click on *Edital*.

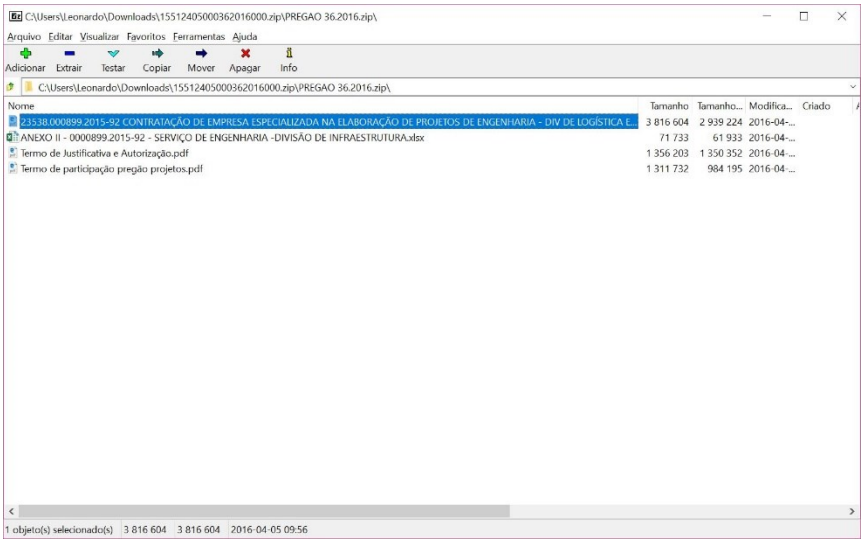
Step 6: The system demands a confirmation. Type the confirmation code and click on *Confirmar*. A zip file containing the documentation will be available. In some cases, there is a zip file inside the first zip file.

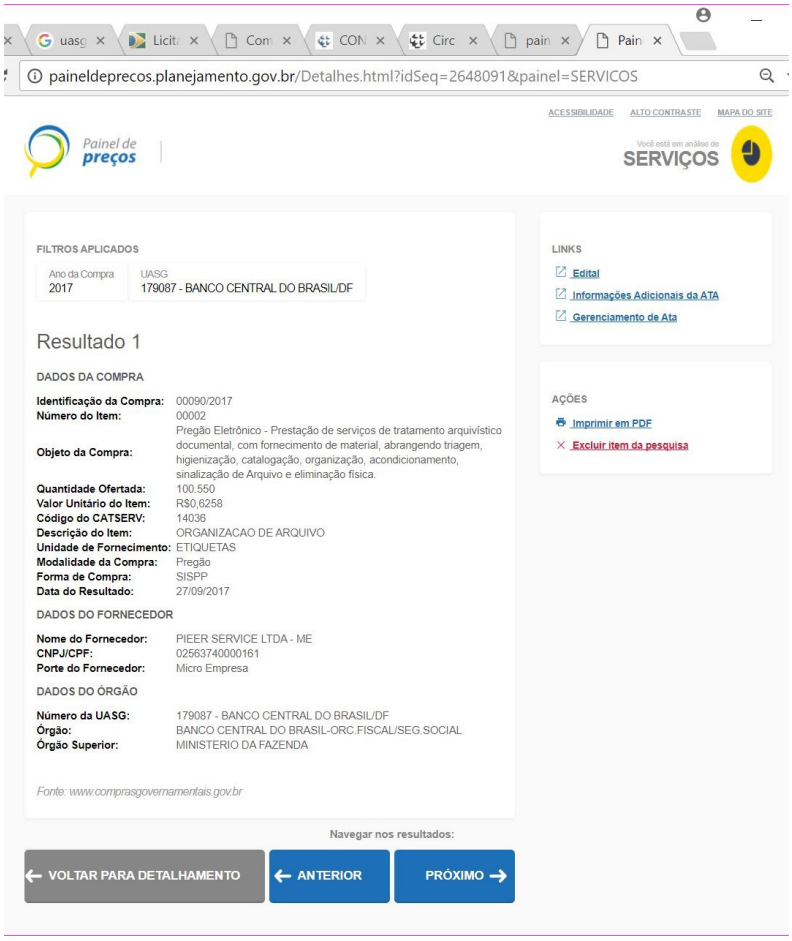


Step 7: Open the zip file. In the example below, the first zip file unzipped is shown, containing another zip file and a pdf file holding information about the service items being procured.



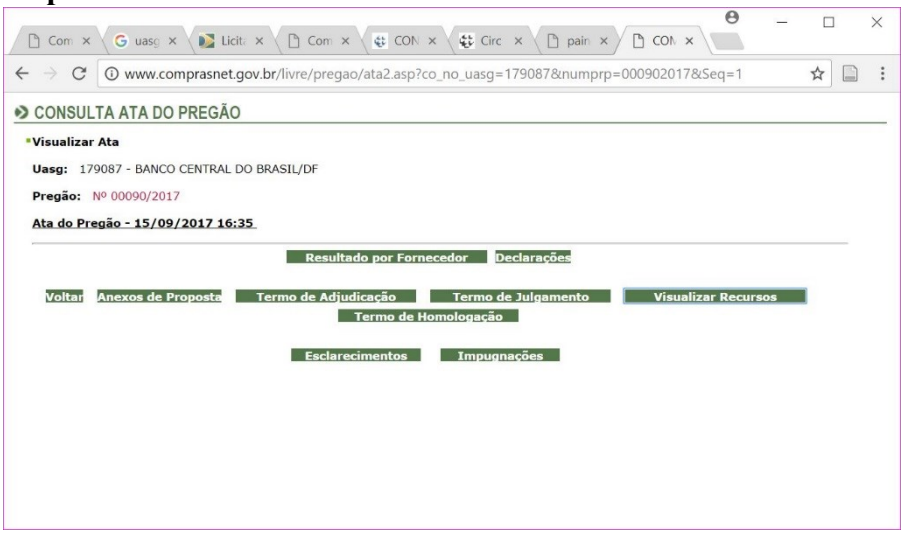
Step 8: Open second zip file. In the example below, it holds the remaining tender documents.





Step 9: To get access to information concerning protests, click on *Informaçoes Adicionais da ATA* (from step 5).

Step 10: Click on *Visualizar Recursos*.



Step 11: If it is the case, the protest(s) will show up, as in the example below. From this screen, it is possible to download the original protest ("Recurso"), the explanation provided by the winner of the bid ("Contra-Razao do Fornecedor"), the analysis of the procurement official ("Decisao do Pregoeiro") and the final decision by the competent authority ("Decisao da Aut. Competente").

Appendix 4: List of selected solicitation documents

origin	UASG	procedure number	solicit. mode
keyword "architecture"	200035	0012/2017	reverse auction
keyword "architecture"	254445	0215/2017	reverse auction
keyword "architecture"	154070	0001/2017	RDC
keyword "architecture"	154046	0004/2017	request for quotations
keyword "architecture"	153254	0021/2015	reverse auction
keyword "architecture"	153163	0005/2016	RDC
keyword "architecture"	153114	0164/2016	reverse auction
keyword "architecture"	153114	0009/2016	request for quotations
keyword "architecture"	153103	0024/2017	RDC
keyword "architecture"	153079	0001/2017	request for quotations
keyword "architecture"	153079	0001/2016	request for quotations
keyword "architecture"	153061	0001/2016	RDC
keyword "architecture"	173039	0026/2016	reverse auction
keyword "architecture"	173039	0028/2016	reverse auction
keyword "architecture"	154070	0003/2017	RDC
keyword "architecture"	200108	0008/2017	reverse auction
keyword "architecture"	158304	0039/2016	reverse auction
keyword "architecture"	153038	0073/2016	reverse auction
keyword "architecture"	153045	0017/2016	open tendering
keyword "architecture"	153045	0018/2016	open tendering
keyword "architecture"	200207	0013/2017	reverse auction
keyword "architecture"	179085	0098/2017	reverse auction
keyword "architecture"	200121	0009/2017	reverse auction
keyword "architecture"	179085	0112/2017	reverse auction
keyword "architecture"	200095	0025/2016	reverse auction
keyword "architecture"	200049	0042/2016	reverse auction
keyword "architecture"	200044	0011/2016	reverse auction
keyword "architecture"	200043	0017/2017	reverse auction
keyword "architecture"	153052	0005/2017	request for quotations
keyword "architecture"	154618	0015/2017	reverse auction
keyword "architecture"	153052	0001/2016	open tendering
keyword "architecture"	160141	0001/2016	request for quotations
keyword "architecture"	158275	0014/2017	reverse auction
keyword "architecture"	158423	0001/2016	request for quotations
keyword "architecture"	158581	2581/2016	reverse auction
keyword "architecture"	158147	0013/2016	reverse auction
keyword "architecture"	158009	0003/2017	RDC
keyword "architecture"	158720	0001/2017	RDC
keyword "architecture"	158720	0003/2017	RDC

origin	UASG	procedure number	solicit. mode
keyword "architecture"	158720	0004/2017	reverse auction
keyword "architecture"	158892	0014/2016	reverse auction
keyword "architecture"	160017	0002/2016	reverse auction
keyword "architecture"	160036	0006/2016	reverse auction
keyword "architecture"	158009	0002/2017	RDC
keyword "architecture"	160036	0025/2017	reverse auction
keyword "architecture"	154070	0002/2017	RDC
keyword "architecture"	170018	0003/2017	reverse auction
keyword "architecture"	155008	0038/2017	reverse auction
keyword "architecture"	170131	0022/2017	reverse auction
keyword "architecture"	155009	0001/2016	RDC
keyword "architecture"	155009	0002/2016	RDC
keyword "architecture"	155009	0002/2017	RDC
keyword "architecture"	155124	0003/2017	RDC
keyword "architecture"	155009	0005/2017	RDC
keyword "architecture"	160078	0001/2017	request for quotations
keyword "architecture"	170010	0006/2017	reverse auction
keyword "architecture"	170010	0001/2016	request for quotations
keyword "architecture"	926697	0053/2017	reverse auction
keyword "architecture"	155124	0001/2017	RDC
keyword "architecture"	020001	0001/2017	open tendering
keyword "architecture"	254445	0291/2017	reverse auction
keyword "architecture"	155009	0003/2017	RDC
keyword "architecture"	925138	0028/2017	reverse auction
keyword "architecture"	090012	0041/2017	reverse auction
keyword "architecture"	080026	0001/2017	request for quotations
keyword "architecture"	925175	0001/2017	request for proposals
keyword "architecture"	925153	0079/2016	reverse auction
keyword "architecture"	925153	0067/2016	reverse auction
keyword "architecture"	080016	0019/2017	reverse auction
keyword "architecture"	090003	0031/2017	reverse auction
keyword "architecture"	925425	0010/2016	reverse auction
keyword "architecture"	925135	0029/2016	reverse auction
keyword "architecture"	090005	0009/2017	reverse auction
keyword "architecture"	090011	0024/2016	reverse auction
keyword "architecture"	090012	0001/2017	reverse auction
keyword "architecture"	090012	0006/2017	reverse auction
keyword "architecture"	254445	0001/2017	RDC
keyword "architecture"	925153	0053/2016	reverse auction
keyword "architecture"	070012	0018/2016	reverse auction
keyword "architecture"	926523	0001/2015	request for quotations

origin	UASG	procedure number	solicit. mode
keyword "architecture"	926245	0025/2016	reverse auction
keyword "architecture"	926245	0018/2016	reverse auction
keyword "architecture"	926245	0002/2017	reverse auction
keyword "architecture"	040001	0072/2017	reverse auction
keyword "architecture"	925390	0001/2016	request for proposals
keyword "architecture"	070008	0011/2016	reverse auction
keyword "architecture"	090021	0032/2016	reverse auction
keyword "architecture"	925942	0059/2017	reverse auction
keyword "architecture"	080002	0016/2017	reverse auction
keyword "architecture"	925856	0147/2017	reverse auction
keyword "architecture"	925856	0049/2017	reverse auction
keyword "architecture"	925848	0010/2016	reverse auction
keyword "architecture"	925848	0008/2016	reverse auction
keyword "architecture"	060001	0067/2016	reverse auction
keyword "architecture"	255025	0001/2017	request for quotations
keyword "architecture"	090012	0023/2017	reverse auction
keyword "architecture"	343034	0002/2017	reverse auction
keyword "architecture"	343011	0003/2017	request for quotations
keyword "architecture"	090038	0004/2017	reverse auction
keyword "architecture"	343003	0002/2017	open tendering
keyword "architecture"	343036	0001/2017	request for quotations
keyword "architecture"	255026	0006/2017	reverse auction
keyword "architecture"	343036	0002/2017	request for quotations
keyword "architecture"	255021	0004/2016	reverse auction
keyword "architecture"	123001	0009/2016	reverse auction
keyword "architecture"	153032	0001/2017	RDC
keyword "architecture"	254446	0006/2016	RDC
keyword "architecture"	254446	0005/2016	RDC
keyword "architecture"	254446	0004/2016	RDC
keyword "architecture"	343003	0001/2017	open tendering
keyword "architecture"	443001	0001/2017	request for proposals
keyword "architecture"	090022	0025/2016	reverse auction
keyword "architecture"	533013	0011/2016	reverse auction
keyword "architecture"	090023	0029/2017	reverse auction
keyword "architecture"	090023	0059/2017	reverse auction
keyword "architecture"	090038	0001/2017	request for quotations
keyword "architecture"	510350	0004/2016	request for quotations
keyword "architecture"	160413	0045/2015	reverse auction
keyword "architecture"	420001	0001/2017	request for proposals
keyword "architecture"	389086	0006/2017	reverse auction
keyword "architecture"	380941	0007/2017	reverse auction

origin	UASG	procedure number	solicit. mode
keyword "architecture"	090037	0011/2016	reverse auction
keyword "architecture"	343041	0006/2017	request for quotations
keyword "urbanismo"	090027	0075/2016	reverse auction
keyword "urbanismo"	154032	0001/2016	prize competition
keyword "urbanismo"	090027	0067/2016	reverse auction
keyword "urbanismo"	925942	0055/2015	reverse auction
keyword "urbanismo"	926066	0006/2017	reverse auction
keyword "urbanismo"	158658	0001/2016	RDC
keyword "urbanismo"	158658	0001/2017	RDC
keyword "urbanismo"	925968	0087/2016	reverse auction
keyword "urbanismo"	160482	0022/2016	reverse auction
keyword "urbanismo"	400066	0001/2017	request for proposals
keyword "urbanismo"	343034	0003/2017	reverse auction
keyword "urbanismo"	170388	0001/2017	reverse auction
keywords "projeto basico"	090022	0031/2016	reverse auction
keywords "projeto basico"	090023	0009/2017	reverse auction
keywords "projeto basico"	530013	0001/2016	reverse auction
keywords "projeto basico"	090027	0032/2017	reverse auction
keywords "projeto basico"	443055	0005/2016	reverse auction
keywords "projeto basico"	344001	0001/2017	request for proposals
keywords "projeto basico"	090038	0002/2017	request for quotations
keywords "projeto basico"	765701	0007/2017	reverse auction
keywords "projeto basico"	110322	0034/2017	reverse auction
keywords "projeto basico"	783701	0001/2016	reverse auction
keywords "projeto basico"	120196	0001/2017	request for quotations
keywords "projeto basico"	120626	0002/2017	open tendering
keywords "projeto basico"	254488	32016/2016	reverse auction
keywords "projeto basico"	152663	0015/2017	reverse auction
keywords "projeto basico"	254462	0010/2017	RDC
keywords "projeto basico"	343007	0001/2017	RDC
keywords "projeto basico"	090004	0046/2016	reverse auction
keywords "projeto basico"	926195	0026/2017	reverse auction
keywords "projeto basico"	060029	0006/2016	reverse auction
keywords "projeto basico"	925989	0011/2016	reverse auction
keywords "projeto basico"	070024	0035/2016	reverse auction
keywords "projeto basico"	080002	0002/2017	open tendering
keywords "projeto basico"	925390	0002/2016	reverse auction
keywords "projeto basico"	925387	0002/2017	open tendering
keywords "projeto basico"	765720	0001/2016	reverse auction
keywords "projeto basico"	925152	0002/2017	request for quotations
keywords "projeto basico"	765705	0001/2018	request for quotations

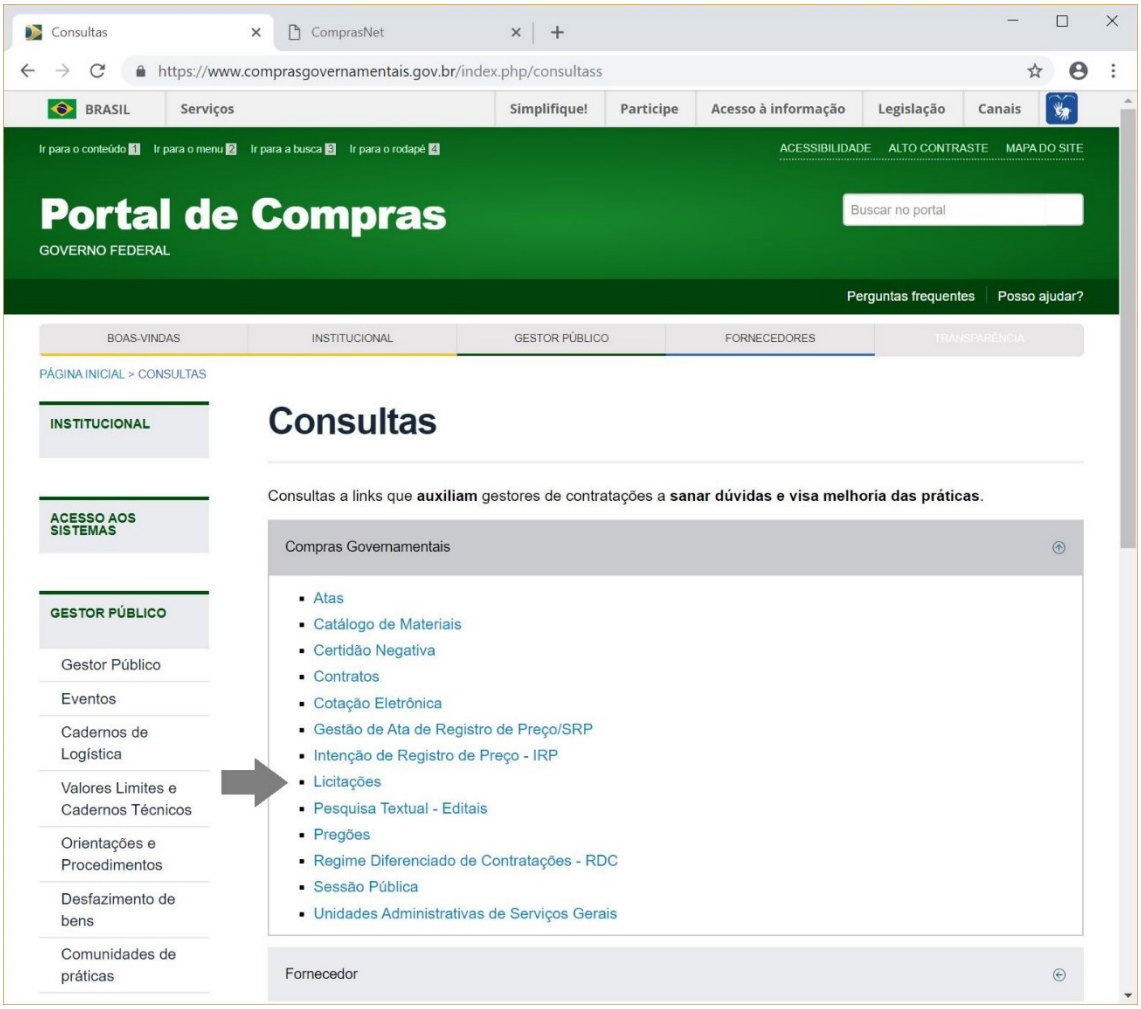
origin	UASG	procedure number	solicit. mode
keywords "projeto basico"	090004	0047/2016	reverse auction
keywords "projeto basico"	787700	0006/2016	reverse auction
keywords "projeto basico"	090005	0018/2017	reverse auction
keywords "projeto basico"	783701	0002/2016	reverse auction
keywords "projeto basico"	200384	0001/2016	reverse auction
keywords "projeto basico"	767000	0001/2017	open tendering
keywords "projeto basico"	153038	0002/2016	reverse auction
keywords "projeto basico"	765706	0001/2017	reverse auction
keywords "projeto basico"	090003	0011/2016	reverse auction
keywords "projeto basico"	170095	0001/2016	reverse auction
keywords "projeto basico"	170217	0011/2017	reverse auction
keywords "projeto basico"	170217	0009/2017	reverse auction
keywords "projeto basico"	170217	0007/2017	reverse auction
keywords "projeto basico"	170201	0001/2016	request for quotations
keywords "projeto basico"	154503	0002/2016	reverse auction
keywords "projeto basico"	154503	0003/2016	reverse auction
keywords "projeto basico"	153167	0042/2017	reverse auction
keywords "projeto basico"	170134	0006/2017	reverse auction
keywords "projeto basico"	170217	0008/2017	reverse auction
keywords "projeto basico"	155009	0001/2017	RDC
keywords "projeto basico"	170088	0001/2017	request for quotations
keywords "projeto basico"	170075	0001/2016	reverse auction
keywords "projeto basico"	170025	0021/2016	reverse auction
keywords "projeto basico"	170025	0009/2016	reverse auction
keywords "projeto basico"	155017	0128/2016	reverse auction
keywords "projeto basico"	158135	0002/2016	reverse auction
keywords "projeto basico"	170160	0008/2016	reverse auction
keywords "projeto basico"	170516	0008/2017	reverse auction
keywords "projeto basico"	250025	0007/2017	reverse auction
keywords "projeto basico"	170217	0006/2017	reverse auction
keywords "projeto basico"	200139	0001/2017	request for quotations
keywords "projeto basico"	153167	0040/2017	reverse auction
keywords "projeto basico"	170516	0005/2017	reverse auction
keywords "projeto basico"	170394	0001/2016	open tendering
keywords "projeto basico"	153114	0001/2016	reverse auction
keywords "projeto basico"	170328	0001/2016	reverse auction
keywords "projeto basico"	153115	0002/2016	reverse auction
keywords "projeto basico"	170325	0001/2016	reverse auction
keywords "projeto basico"	153167	0037/2017	reverse auction
keywords "projeto basico"	170328	0002/2016	reverse auction
'painel de serviços' website	158304	0044/2016	reverse auction

origin	UASG	procedure number	solicit. mode
'painel de serviços' website	158341	0021/2016	reverse auction
'painel de serviços' website	158377	0040/2017	reverse auction
'painel de serviços' website	158156	0027/2015	reverse auction
'painel de serviços' website	153038	0049/2016	reverse auction
'painel de serviços' website	160036	0014/2016	reverse auction
'painel de serviços' website	155124	0036/2016	reverse auction
'painel de serviços' website	200038	0009/2016	reverse auction
'painel de serviços' website	530001	0016/2017	reverse auction
'painel de serviços' website	153047	0019/2017	reverse auction
'painel de serviços' website	160163	0028/2015	reverse auction
'painel de serviços' website	201014	0002/2016	reverse auction
'painel de serviços' website	160066	0013/2017	reverse auction

Appendix 5: Downloading mandatory documents

Access site https://www.comprasgovernamentais.gov.br/index.php/consultass

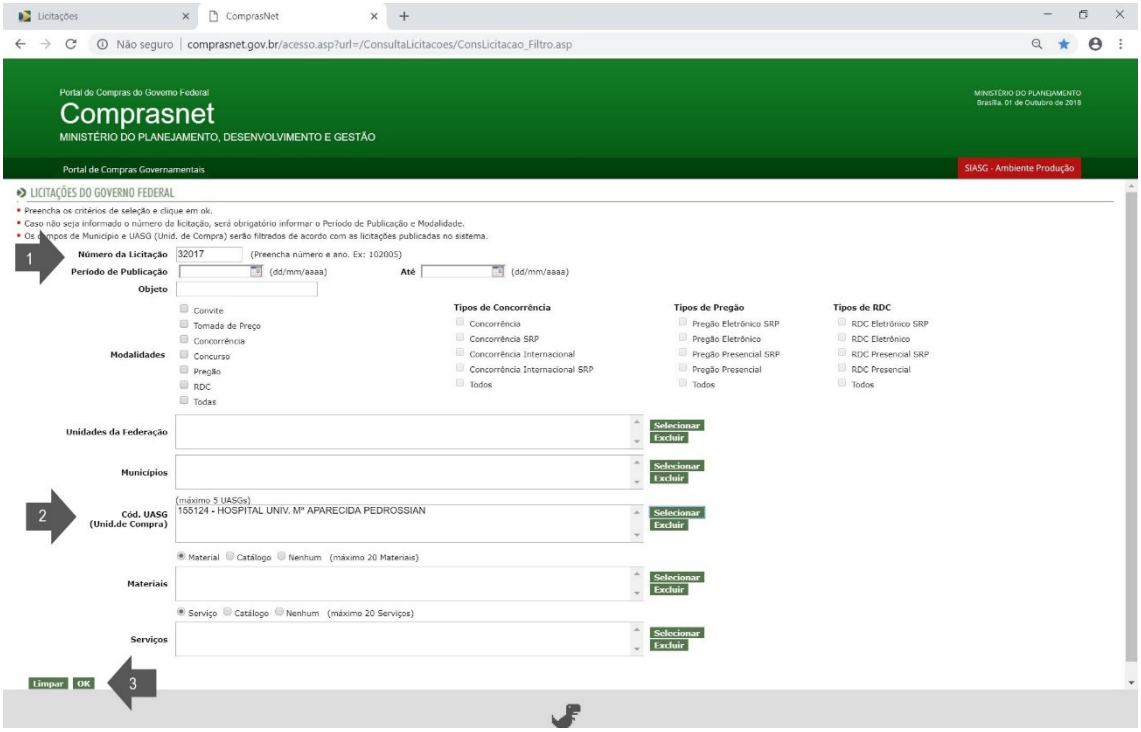
Click on Licitaçoes.



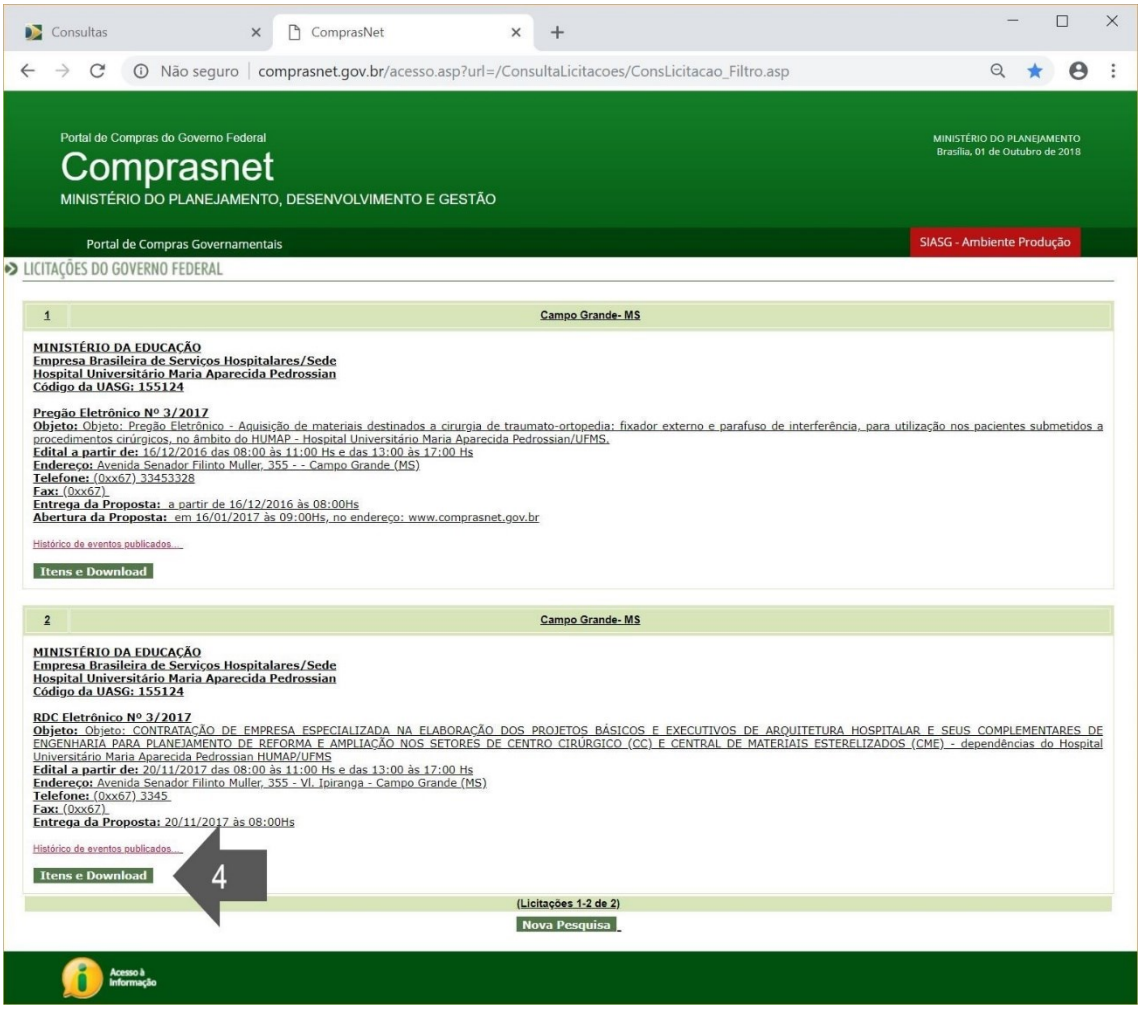
Inform the number of the solicitation document (1).

Inform the UASG code of the procuring entity (2).

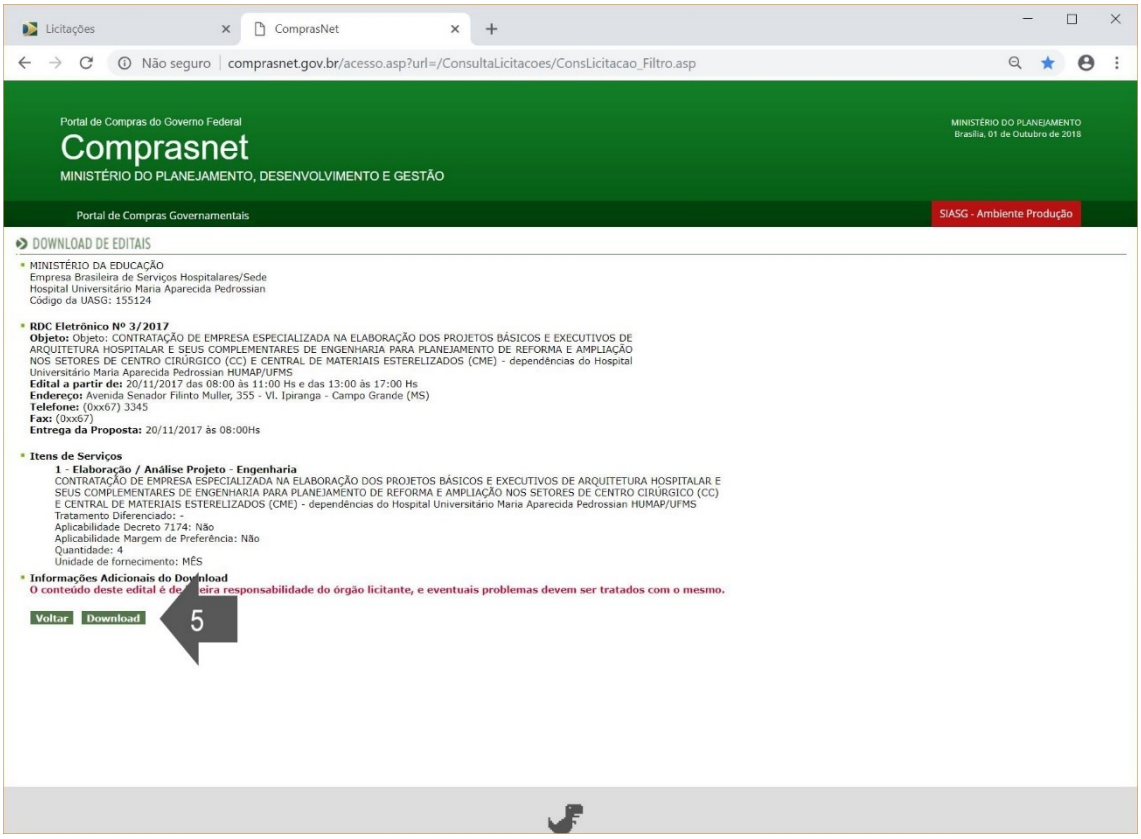
Click OK (3).



In cases where two or more solicitation documents are available under the same number, identify the desired solicitation document and click on *Itens e Download* (4).



The following screen will display the subject matter of procurement and corresponding items. Click on Download (5).



In (6), type the code for downloading displayed in (7). Click on Confirmar (8).

A zip file containing the solicitation document and the reference term will be downloaded (9).

Files are named according to the following structure:

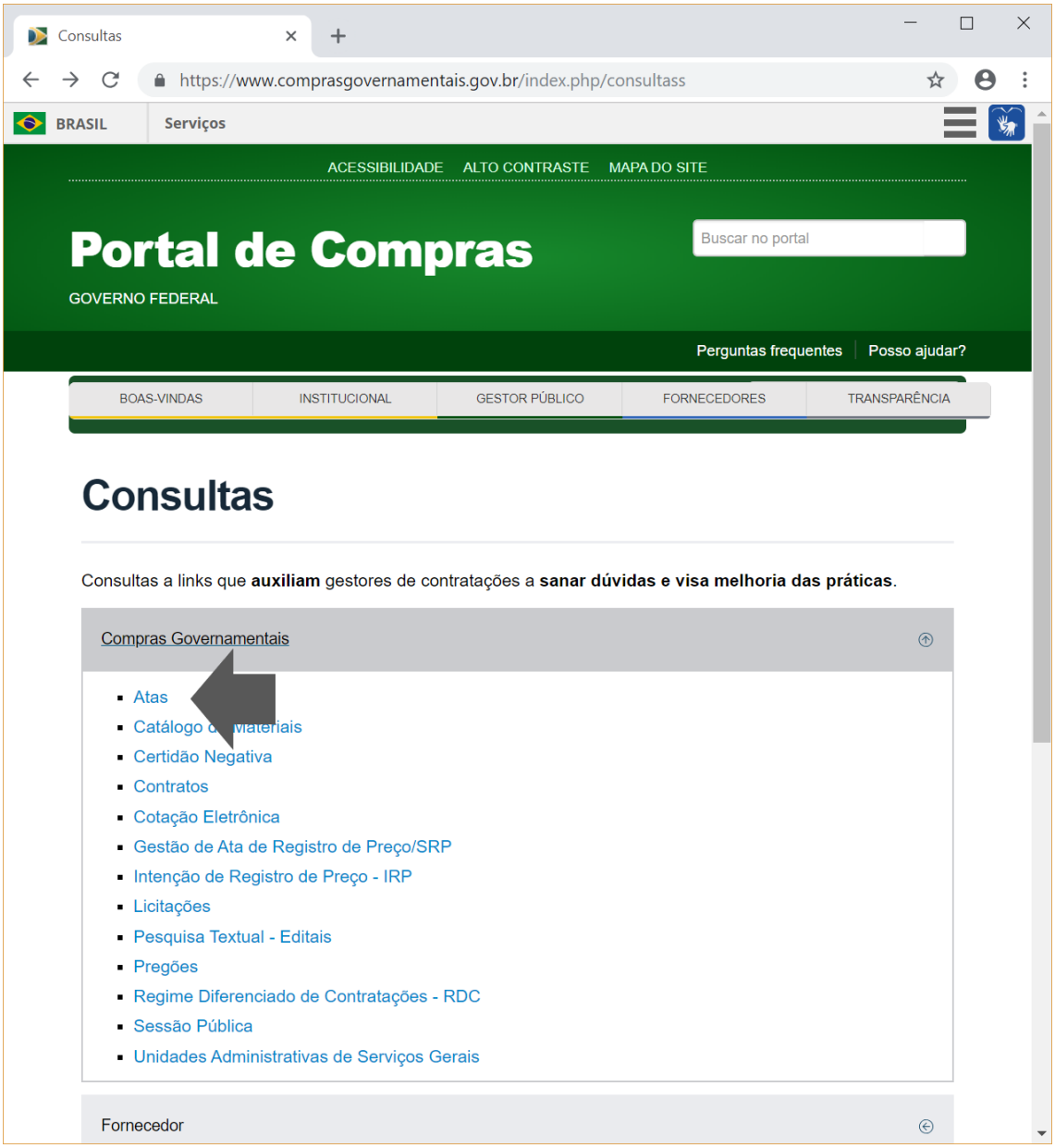
- For RDC procedures: CCCCCCNNNNNYYYYRRR_RDC, where CCCCCC is the code of the procuring entity, NNNNN is the number of the solicitation document, YYYY is the year when the solicitation document was published, RRR is the number of revisions of the solicitation document (typically RRR is 000, indicating that this is the original document and that the document was not revised), and _RDC indicates that this file concerns an RDC. So, for instance the file named as 158658000012017000_RDC.zip regards the RDC number 00001 published in 2017 by the procuring entity whose code is 158658.
- For all other solicitation methods: CCCCCCMMNNNNNYYYYRRR, where CCCCCC is the code of the procuring entity, MM is the code of the solicitation method, NNNNN is the number of the solicitation document, YYYY is the year when the solicitation document was published, RRR is the number of revisions of the solicitation document. MM can be 01 for request for proposals, 02 for request for quotations, 03 for price-based open tendering, 33 for value-based open tendering, 05 for reverse auction, and 20 for prize competitions. So, for instance the file named as 15403220000012016000.zip regards the prize competition number 00001 published in 2016 by the procuring entity whose code is 154032.

I deduced this structure by comparing the contents of the documents and the names of the files. I found the information regarding codes of solicitation method (MM) in the API, in the address http://compras.dados.gov.br/docs/licitacoes/v1/modalidades_licitacao.html

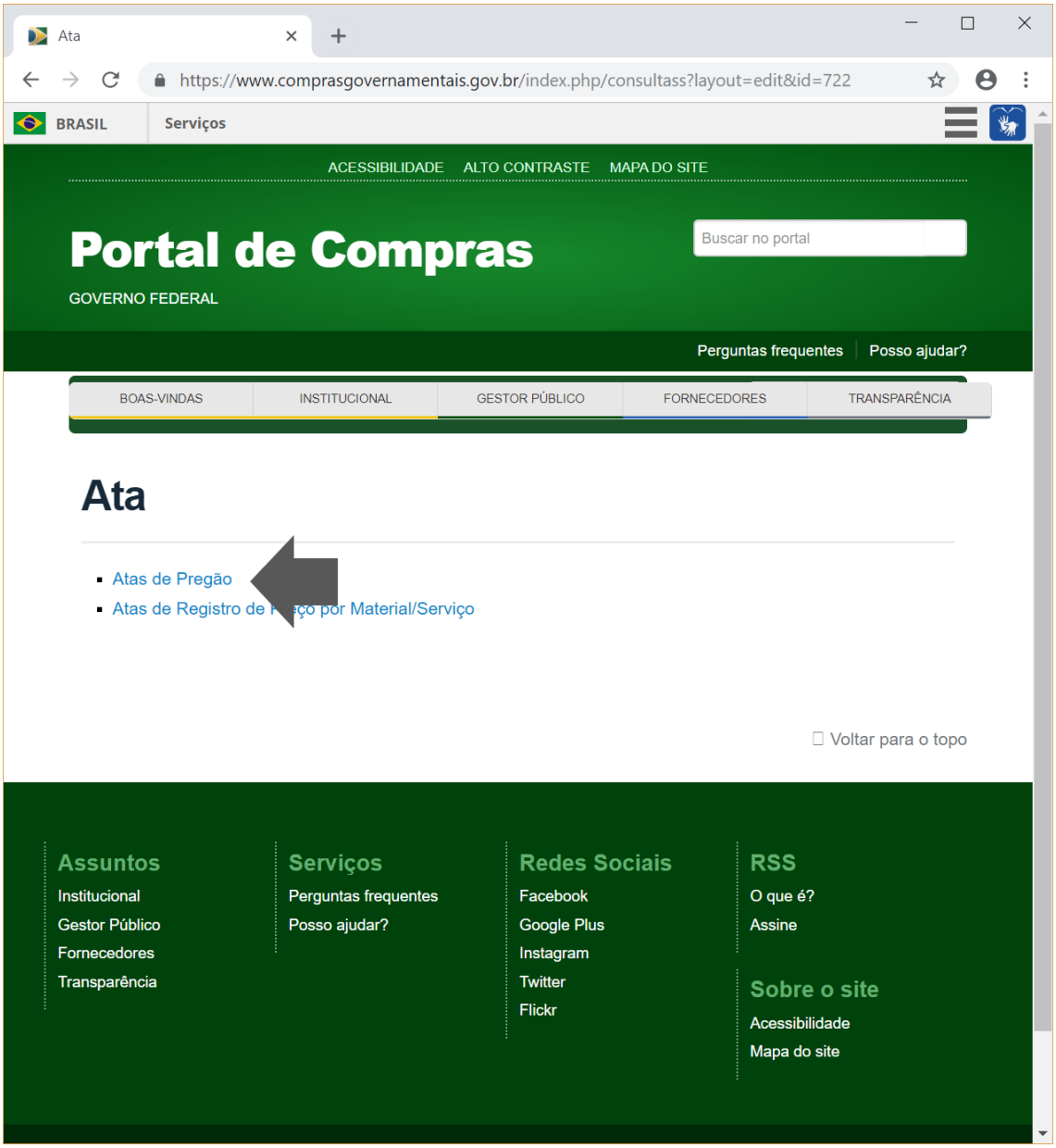
Appendix 6: Downloading additional documents: reverse auctions

Access the address https://www.comprasgovernamentais.gov.br/index.php/consultass

Click on Atas.



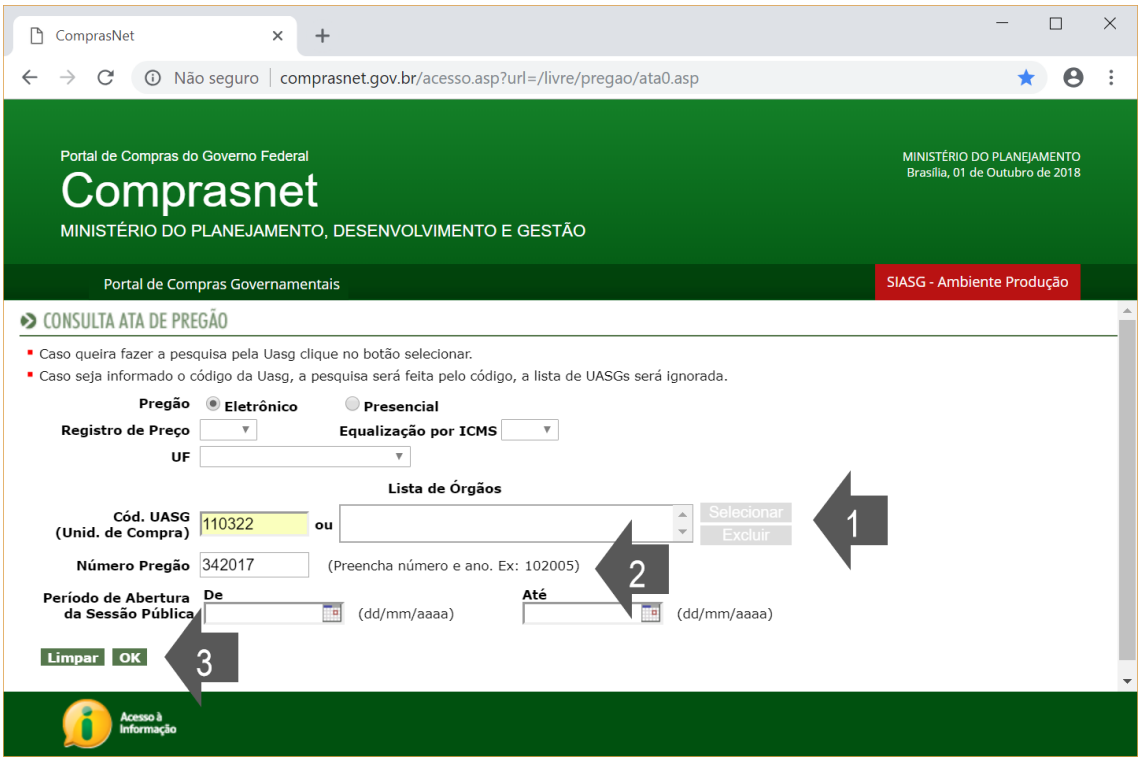
Click on Atas de Pregão



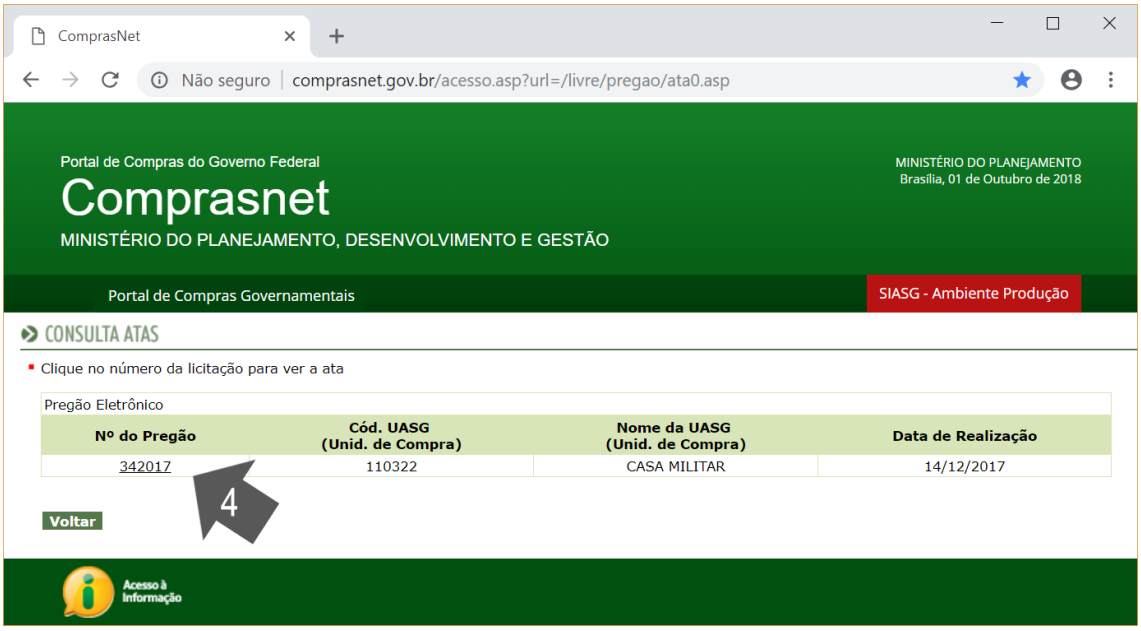
Inform the code of the procuring entity (1).

Inform the number of the procurement procedure (2).

Click OK (3).



Click on the number of the procurement procedure (4).



To download the report of the reverse auction, click on Ata do Pregão (5).

To download information concerning the winner of the reverse auction, click on Resultado por Fornecedor (6).

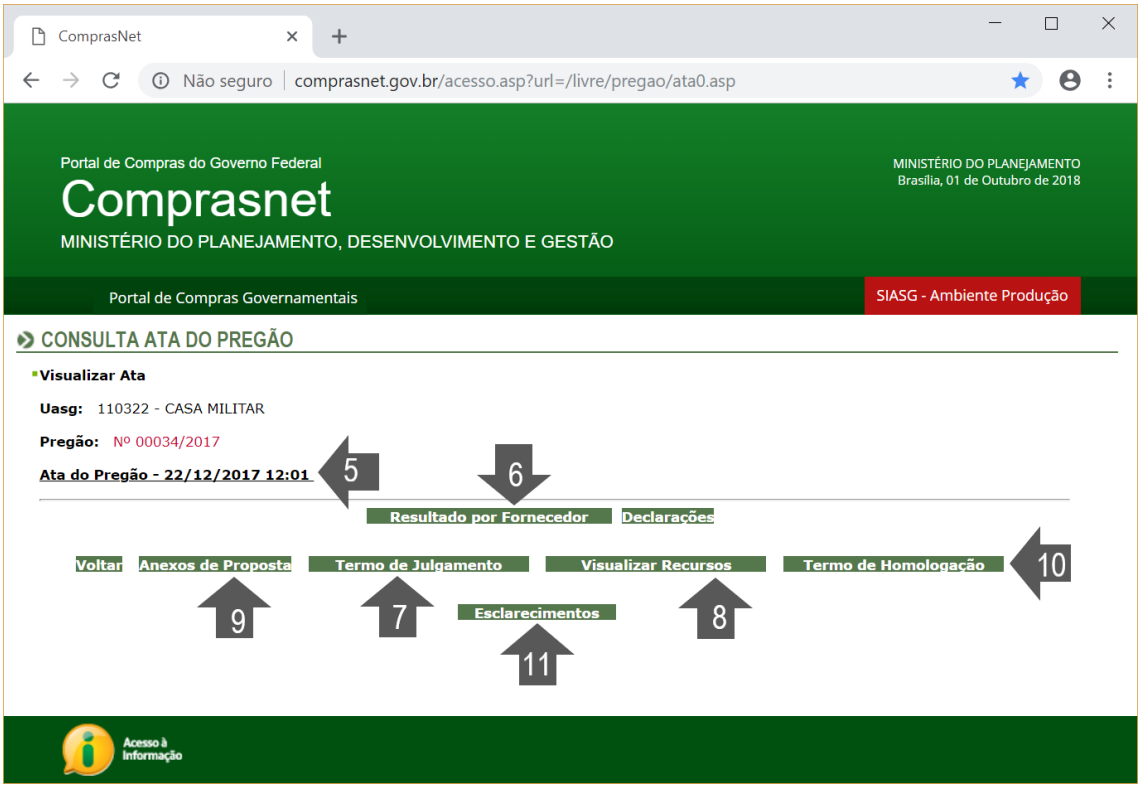
To download the preliminary judgement of the reverse auction, click on Termo de Julgamento (7).

To download appeals and the judgement of appeals, click on Visualizar Recursos (8).

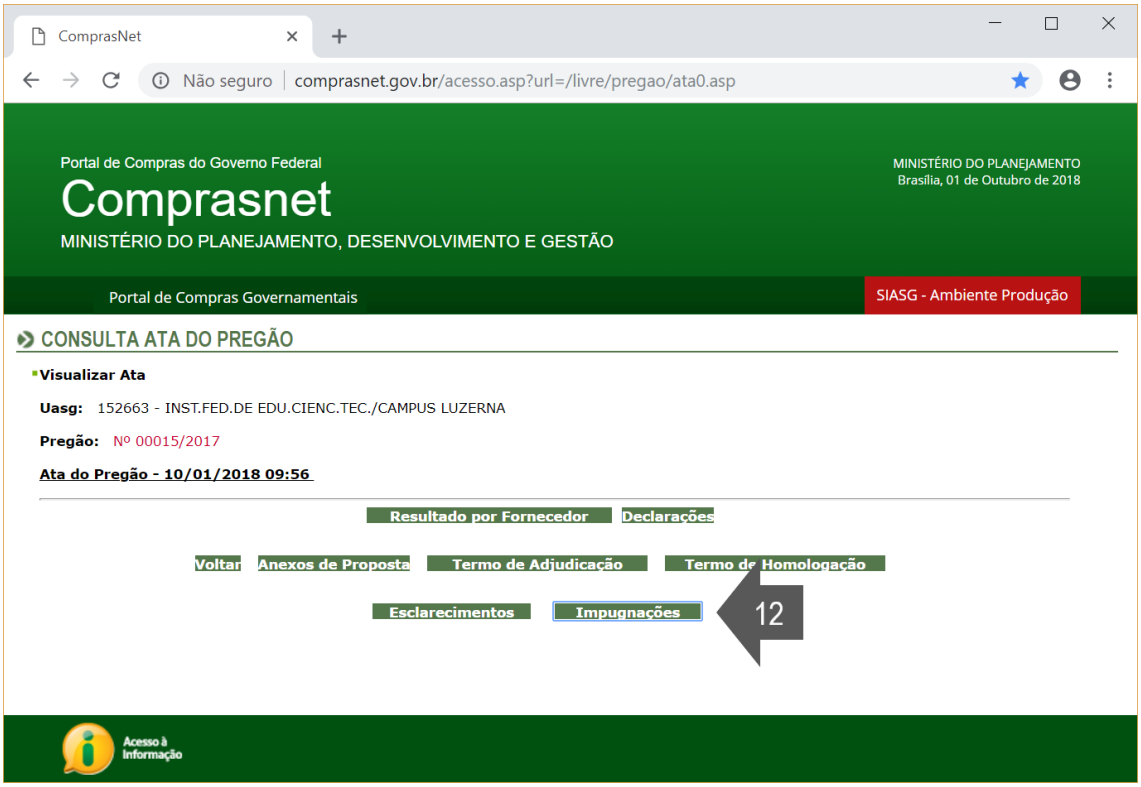
To download qualification documents presented by winning bidders, click on Anexos da Proposta (9).

To download the final result of the procedure (after appeals were judged), click on Termo de Homologaçao (10).

To download additional clarifications presented during the procedure, click on Esclarecimentos (11).



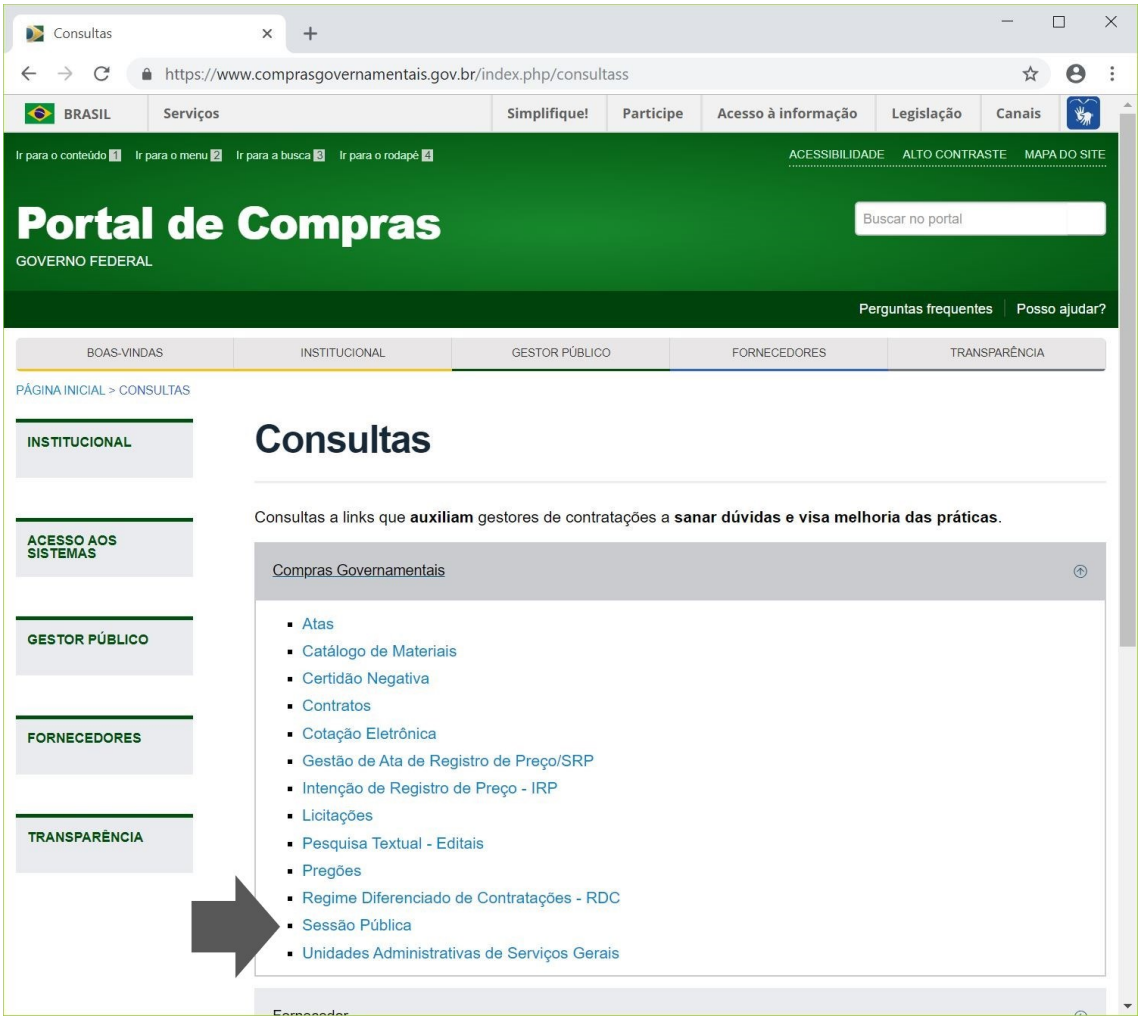
In cases where objections were presented, click on Impugnaçoes to download them and to download judgments concerning them (12).



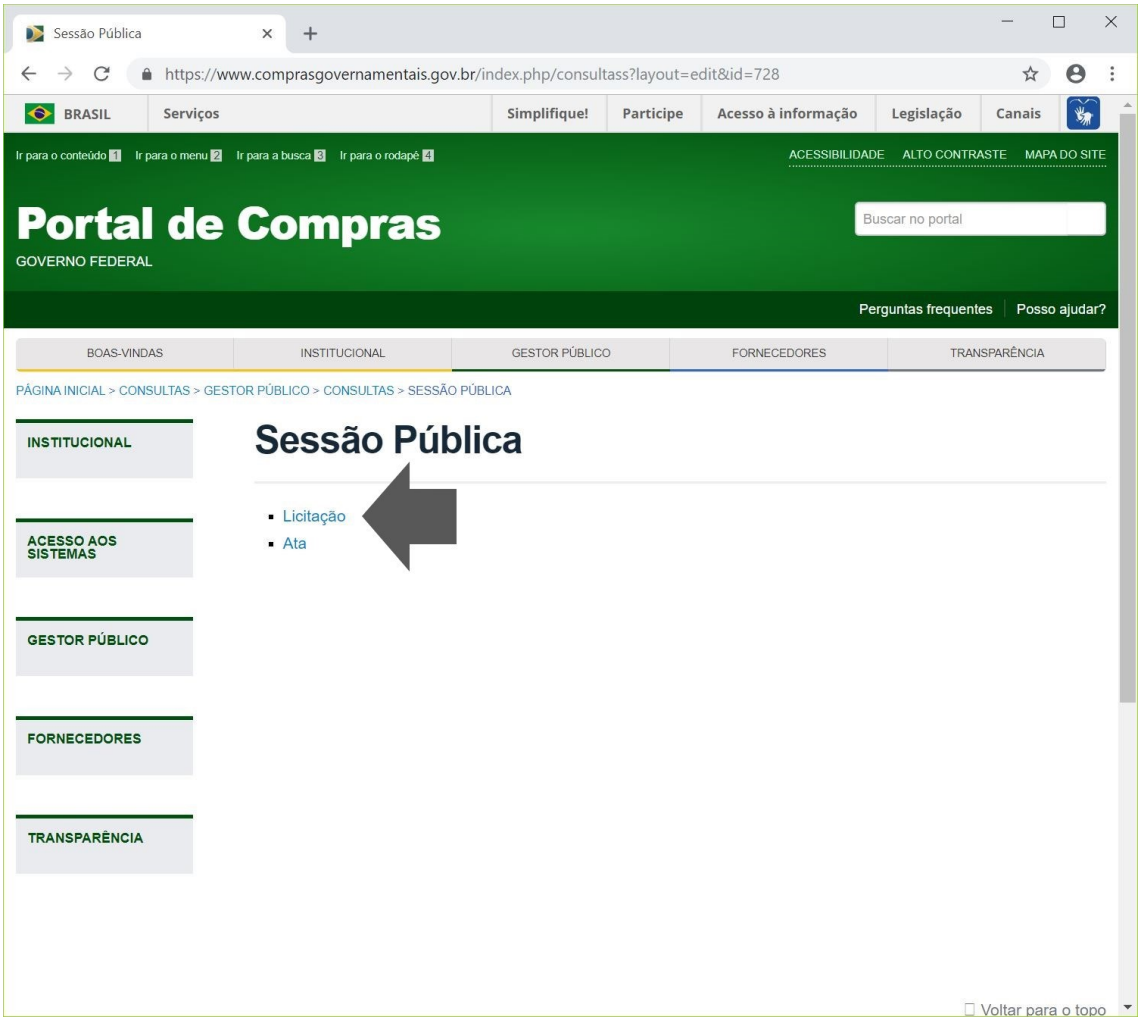
Appendix 7: Downloading additional documents: Law 8.666

Access the address https://www.comprasgovernamentais.gov.br/index.php/consultass

Click on Sessao Publica.



Click on Licitaçao.

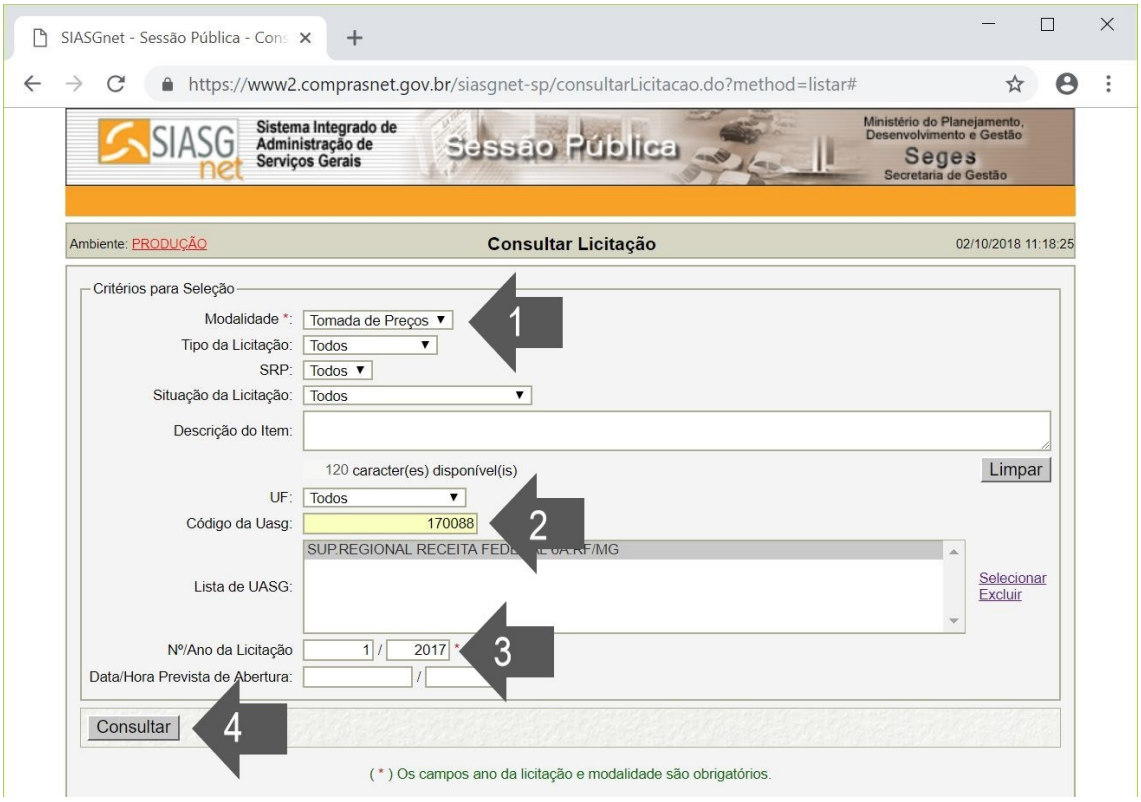


Select the solicitation method (1).

Type the code of the procuring entity (2).

Type the number and year of the procurement procedure (3).

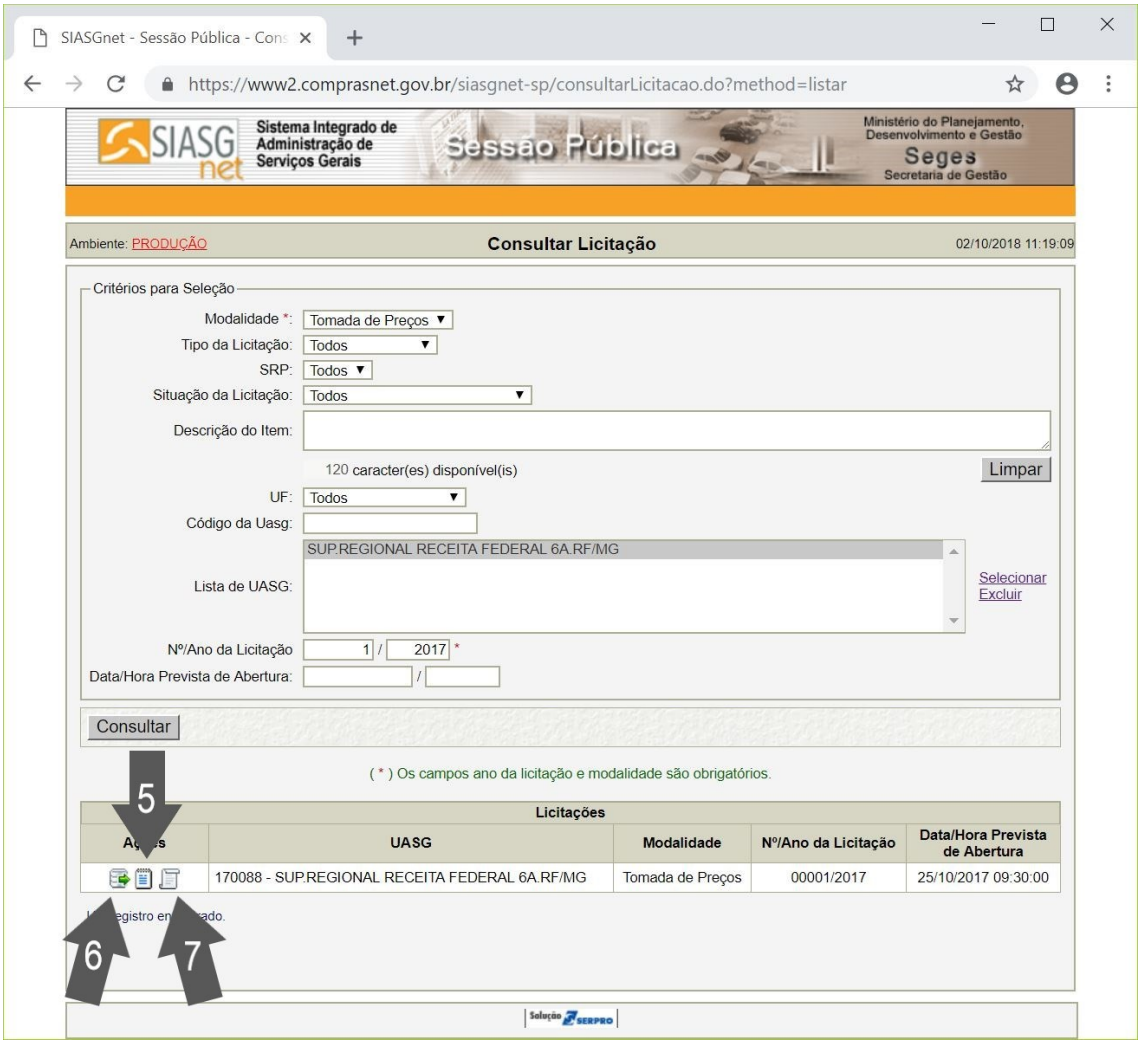
Click on Consultar (4).



To download reports on conformity, qualification and evaluation; additional clarifications presented during the procedure; as well as the final result of the procedure, click on (5).

To download objections and judgments concerning objections, click on (6).

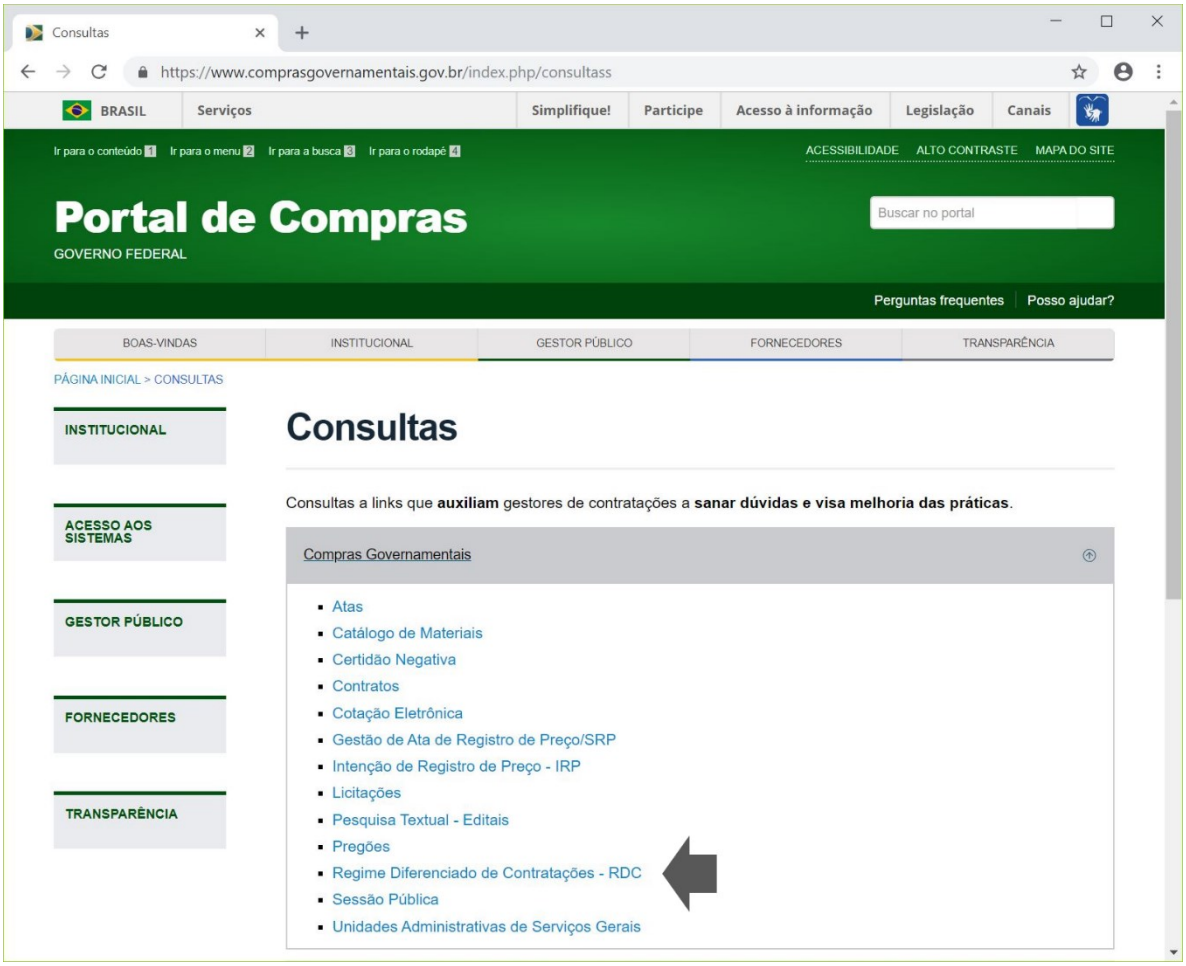
To download appeals and judgements of appeals, click on (7).



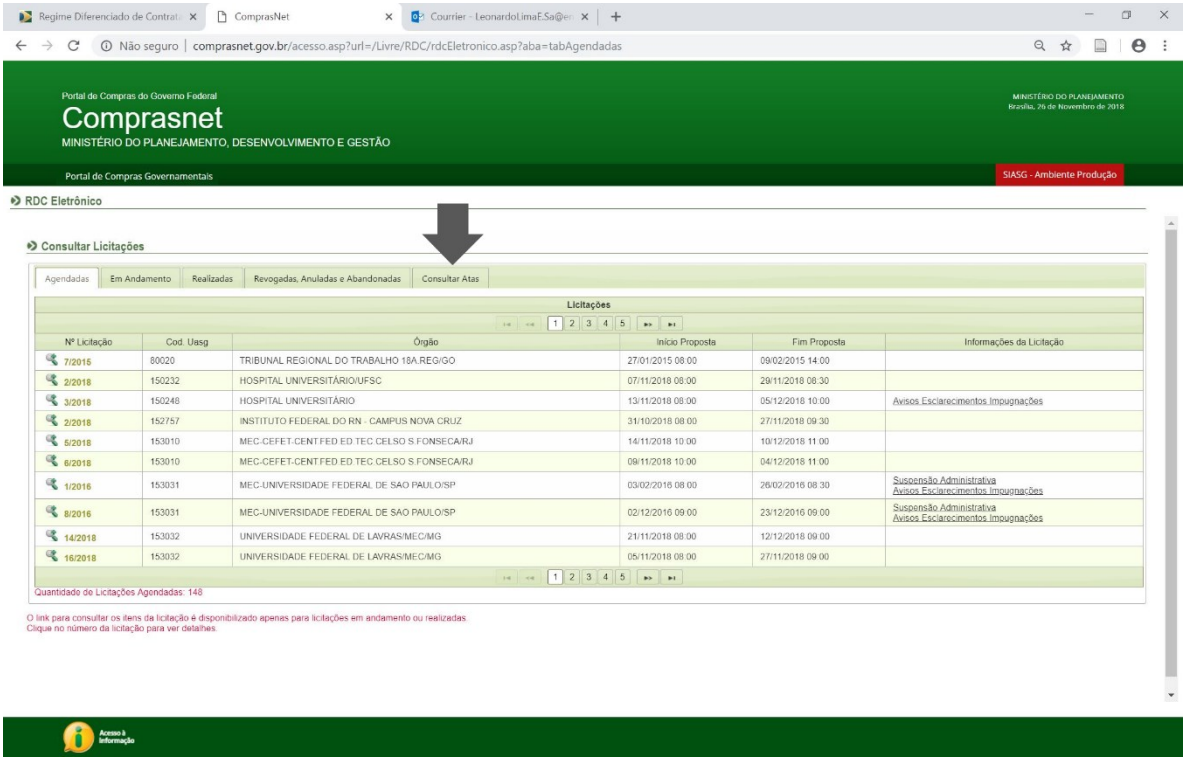
Appendix 8: Downloading additional documents: RDC

Access the address https://www.comprasgovernamentais.gov.br/index.php/consultass

Click on Regime Diferenciado de Contrataçoes – RDC

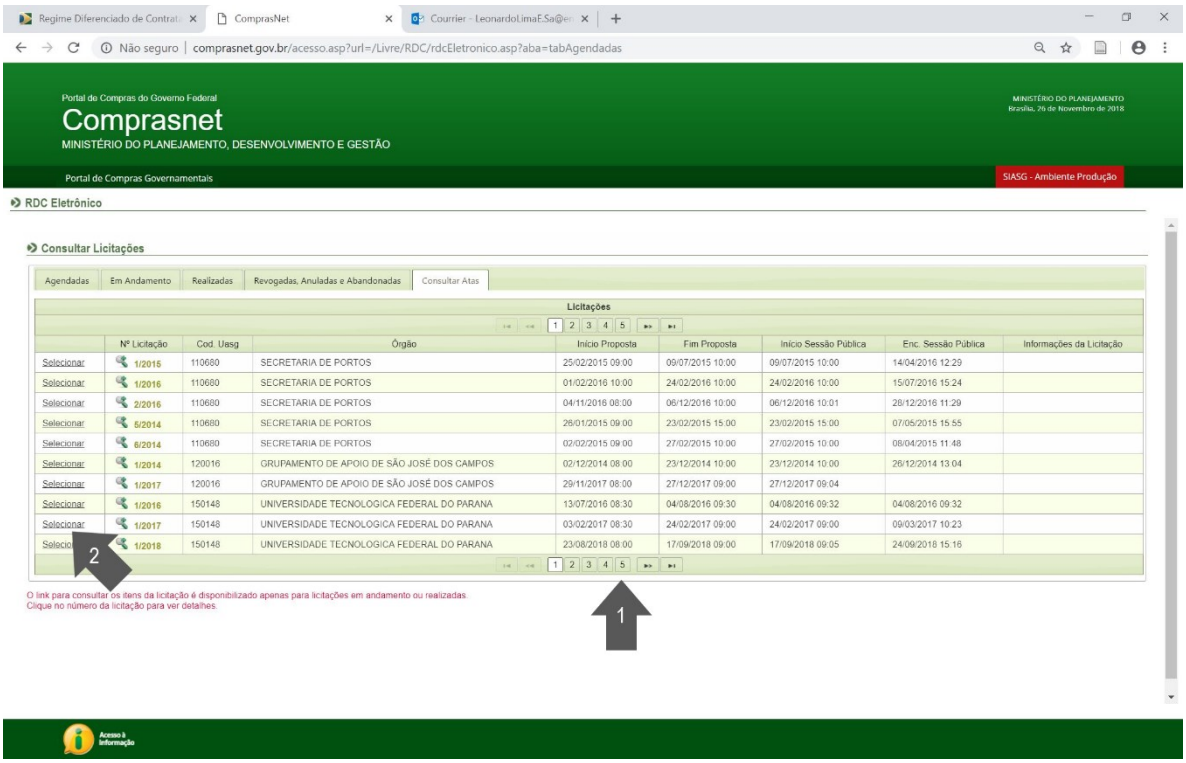


Click on the tab Consultar Atas

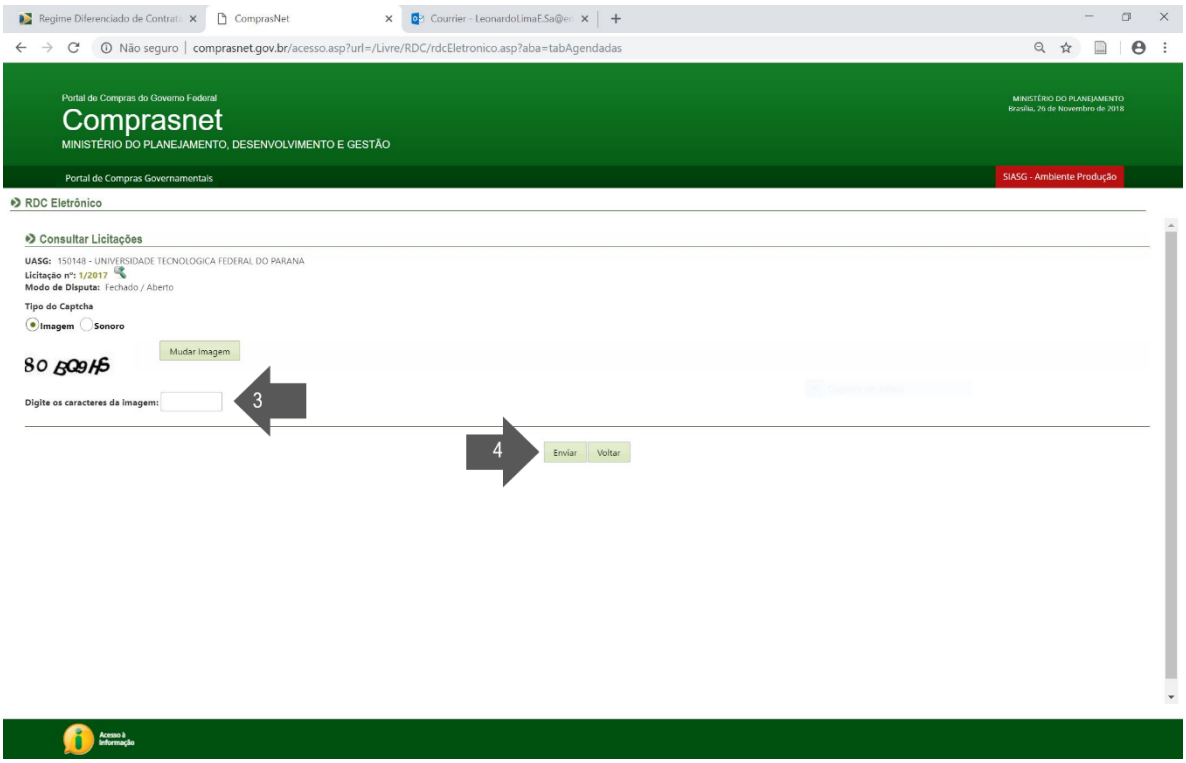


By means of the navigation tools (1), find the page in which the desired procurement procedure is located.

Click on the link Selecionar (2) corresponding to the desired procurement procedure.



Type the informed Captcha code in (3) and click on Enviar (4).



To download the report of the RDC session, click on Ata original (5).

To download information concerning the winner of the reverse auction, click on Resultado por Fornecedor (6).

To download mandatory statements presented by bidders, click on Declaraçoes (7).

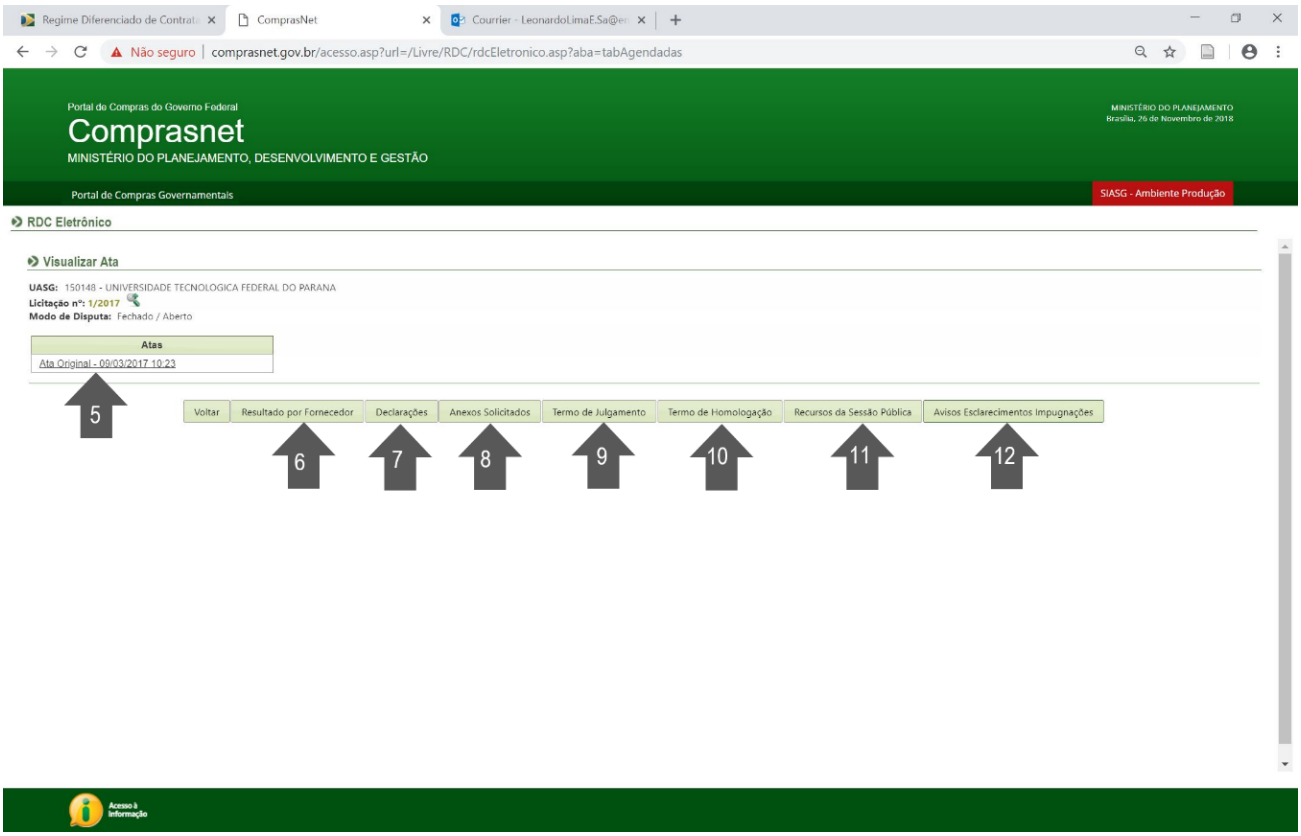
To download qualification documents presented by winning bidders, click on Anexos Solicitados (8).

To download the preliminary results of the RDC, click on Termo de Julgamento (9).

To download the final result of the procedure (after appeals were judged), click on Termo de Homologaçao (10).

To download appeals and the judgement of appeals, click on Recursos da Sessao Publica (11).

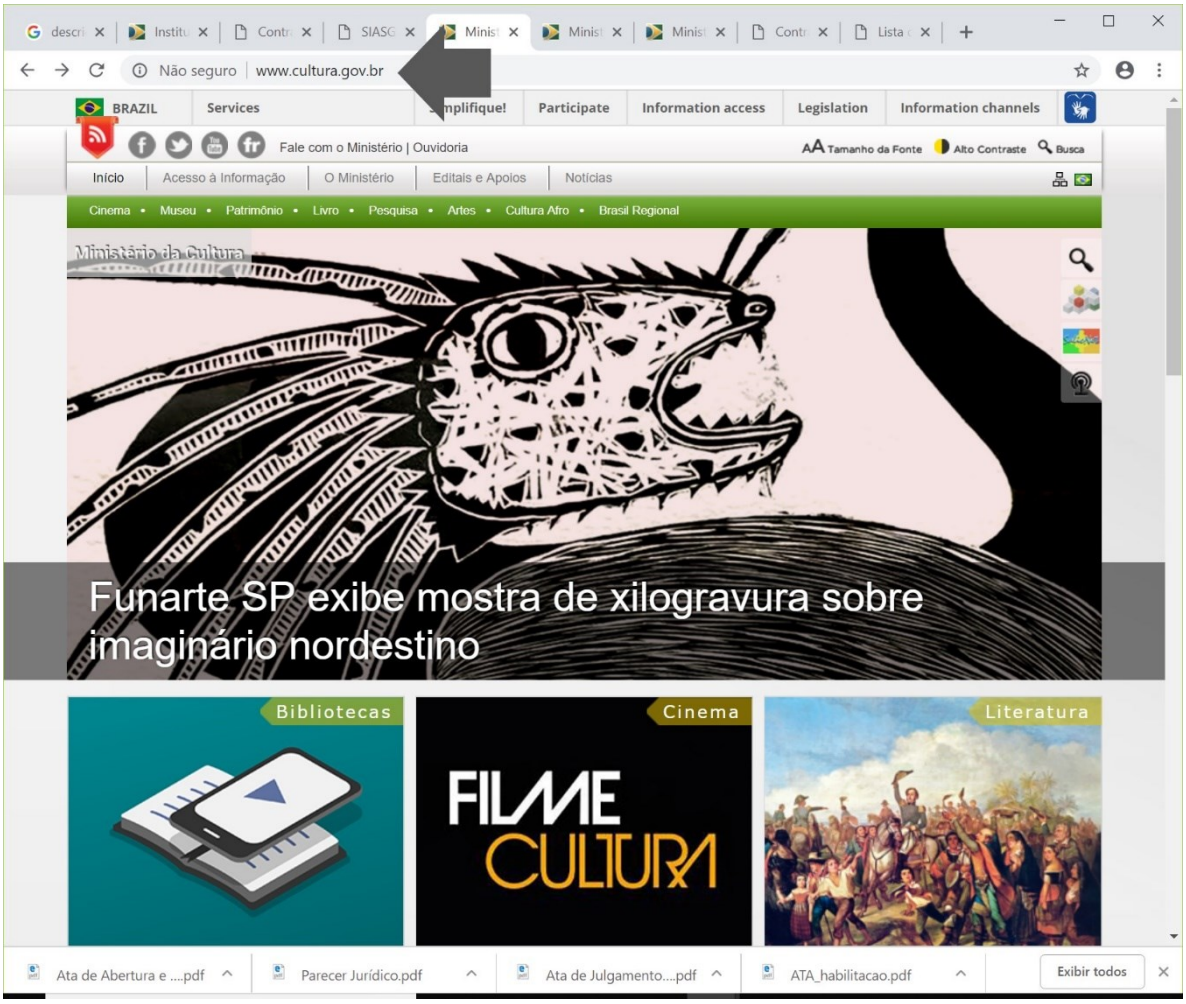
To download additional clarifications presented during the procedure, objections and the judgement of objections, click on Avisos, Esclarecimentos Impugnaçoes (12).



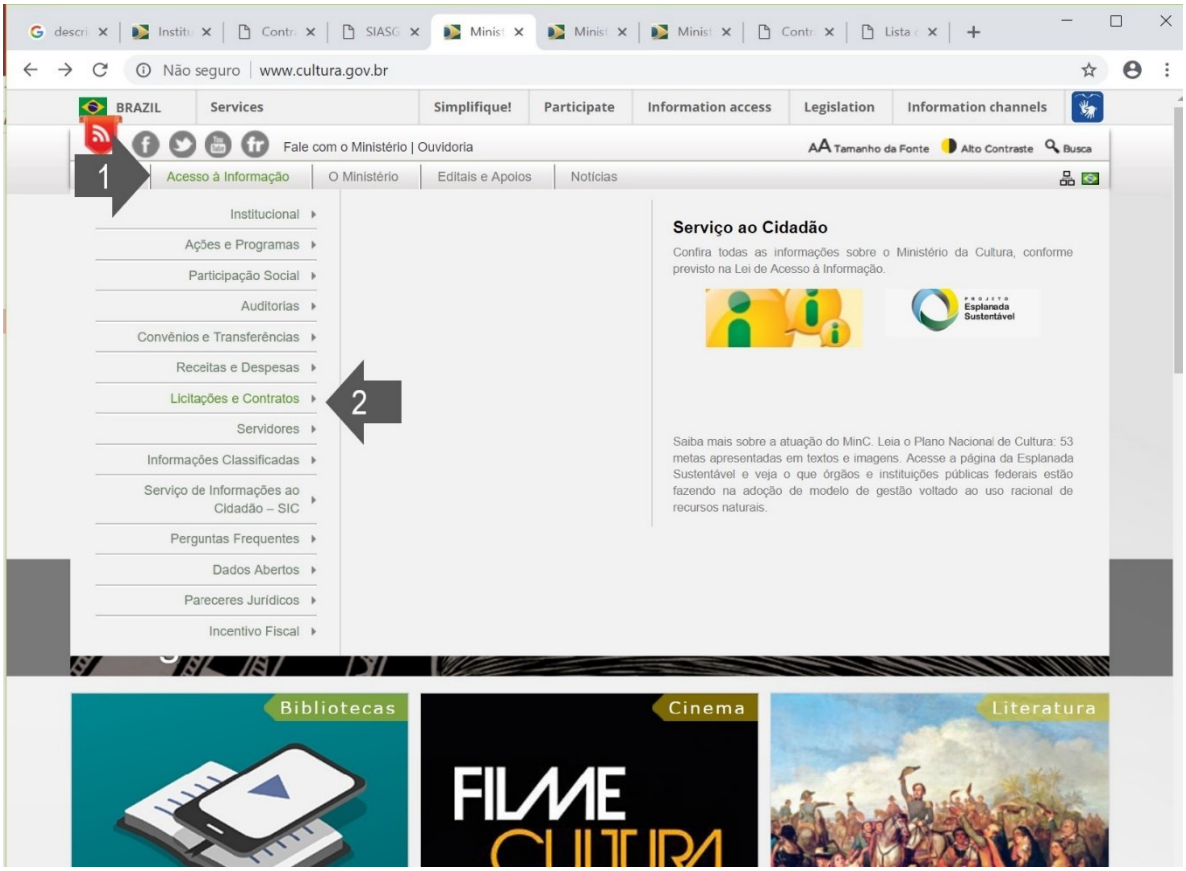
Appendix 9: Downloading additional documents from procuring entities' website

Access the site of the desired procuring entity.

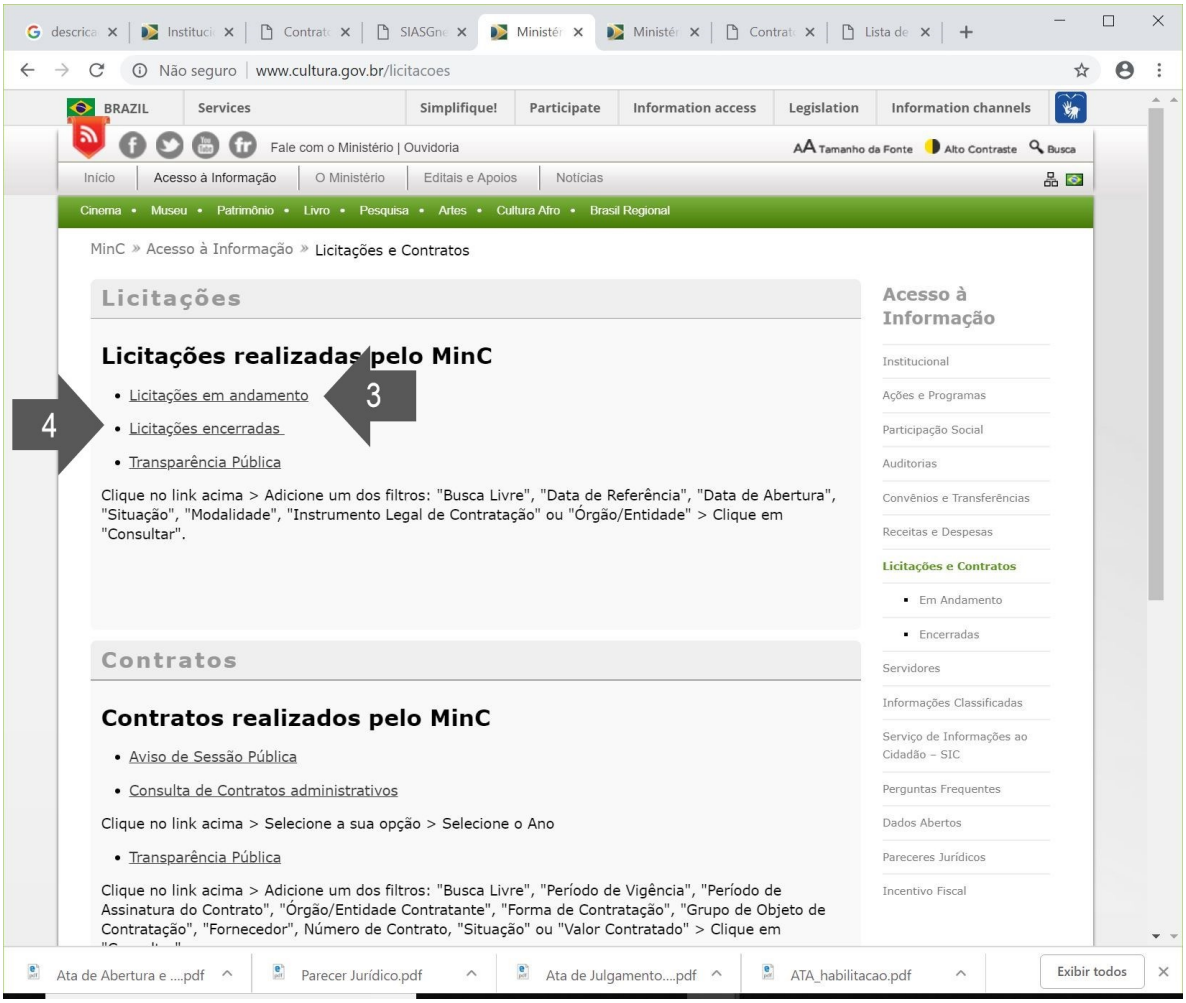
In this example, the procuring entity is the Ministry of Culture (www.cultura.gov.br).



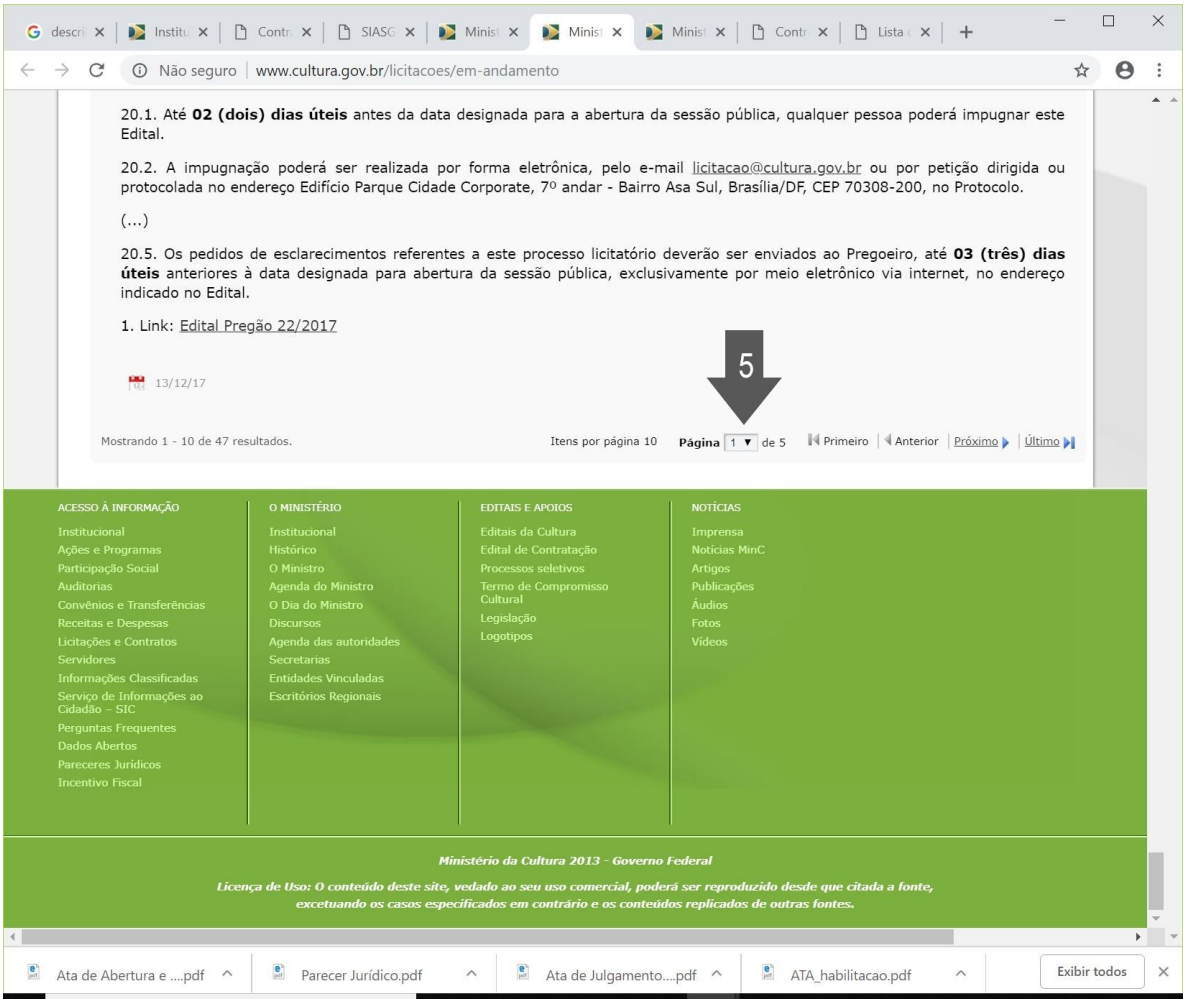
Under the tab Accesso à informaçao (1), click on Licitaçoes e Contratos (2). This way of accessing information on procurement should be the same for all federal organizations, according to transparency regulations.



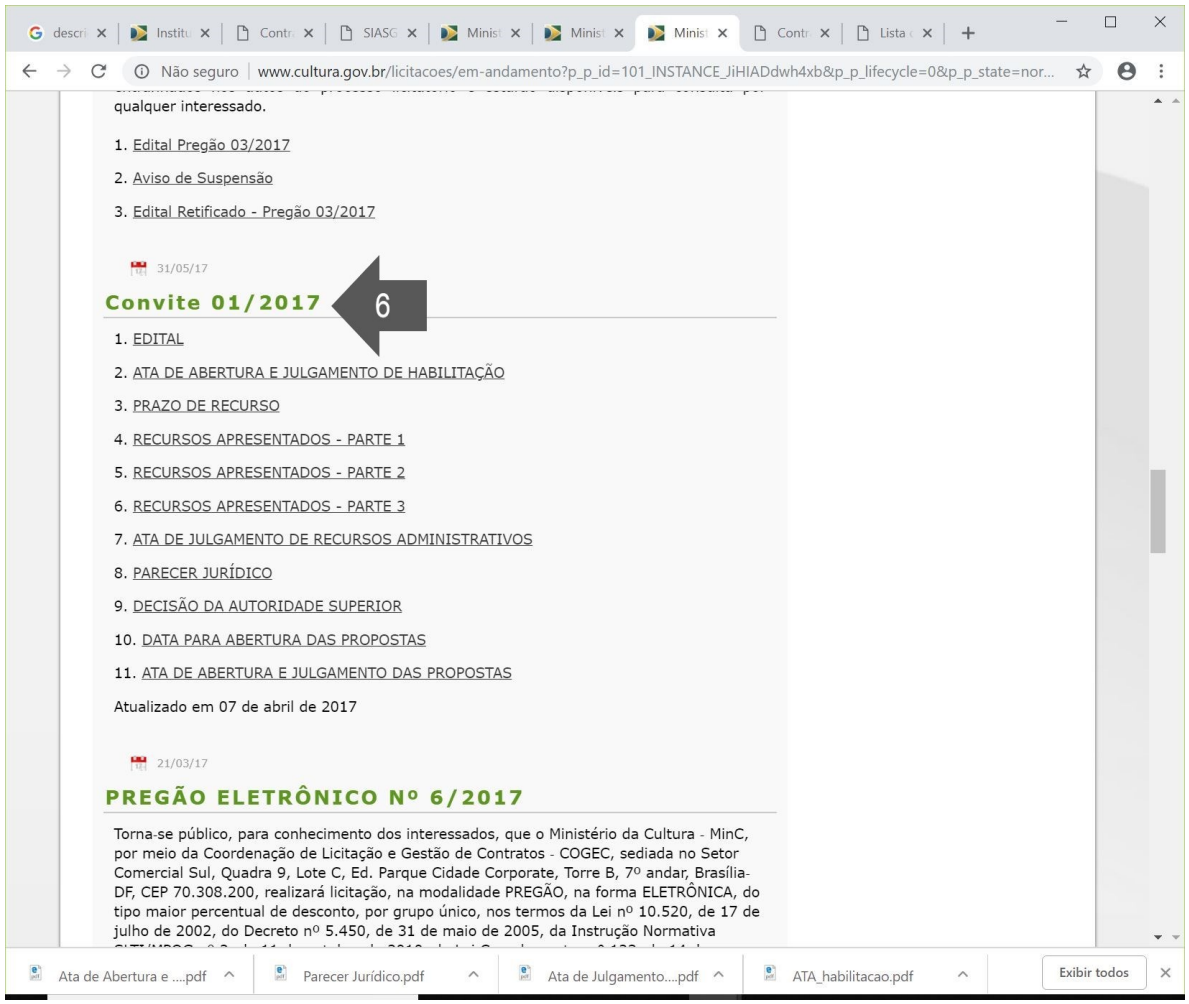
From this point on, each organization may present information in a different way. In this case, the Ministry of Culture shows information concerning ongoing procurement – *licitaçoes em andamento* – (3) and past procurement – *licitaçoes encerradas* – (4) under different links. In spite of this particular case being already a case of past procurement, I found the information under ongoing procurement. So, one might need to search in both links.



Scroll the resulting page, which displays the list of procurement procedures and available documents, searching for the desired procurement procedure. One may need to search through different pages (5).

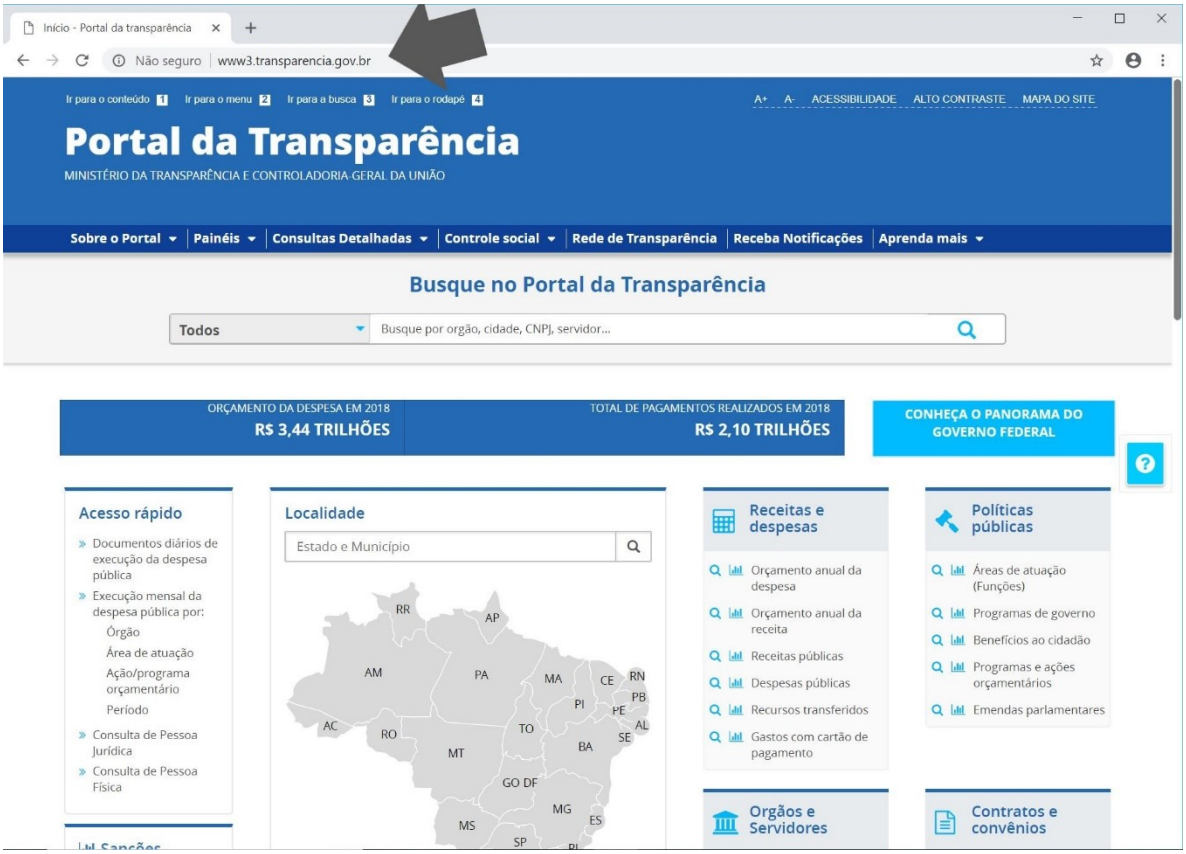


Information available will be displayed under the corresponding procurement document (6).

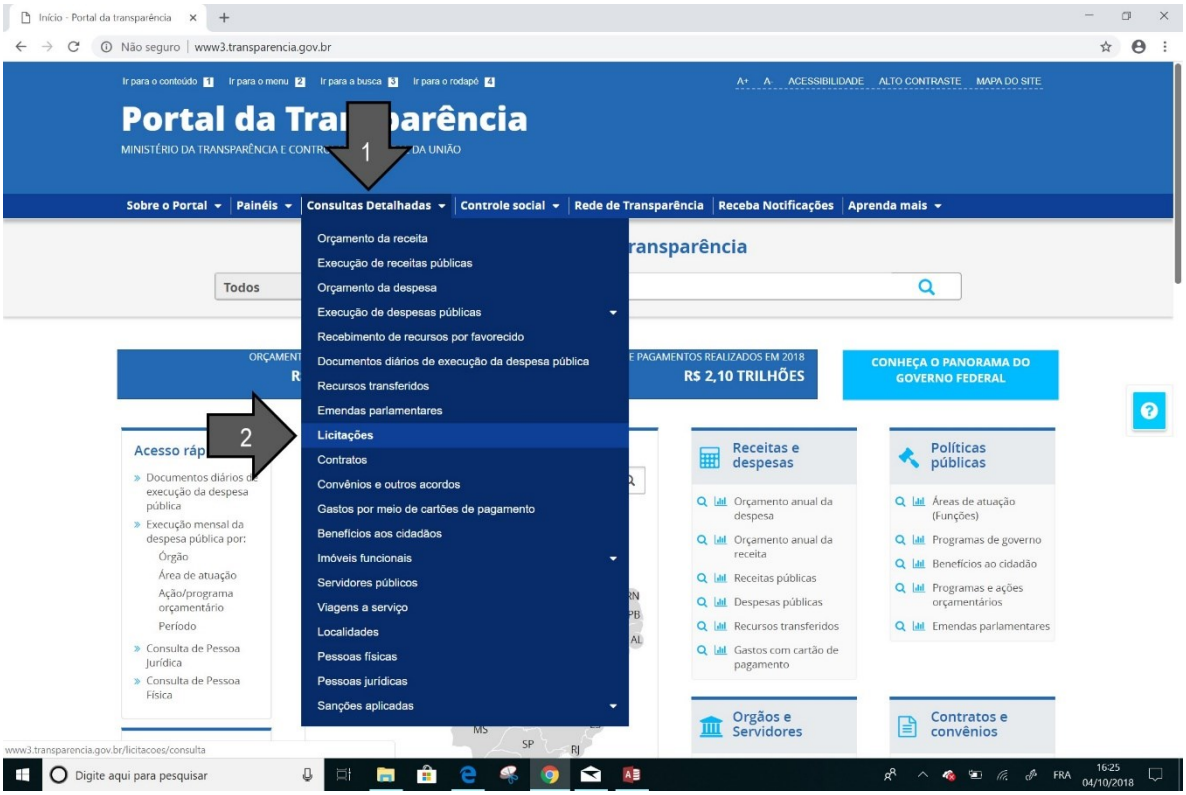


Appendix 10: Downloading additional documents from the Transparency portal

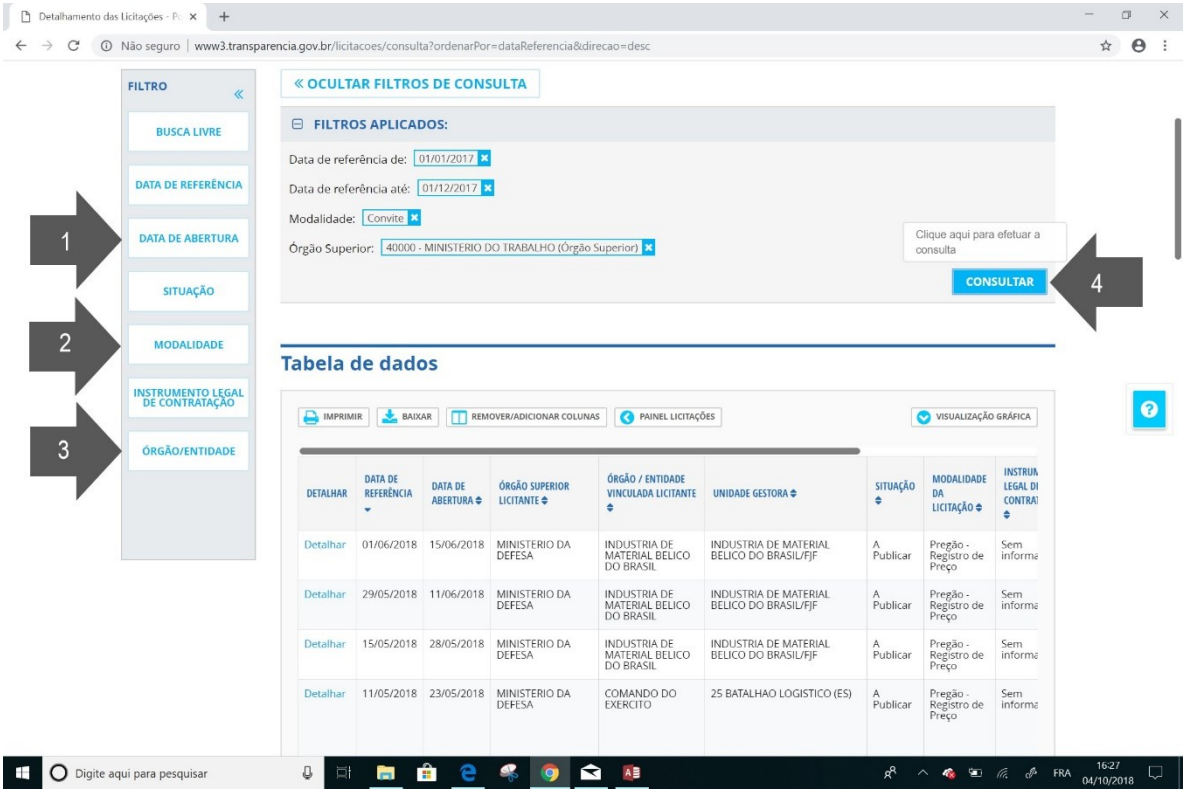
Access the Transparency portal on the internet (http://www3.transparencia.gov.br).



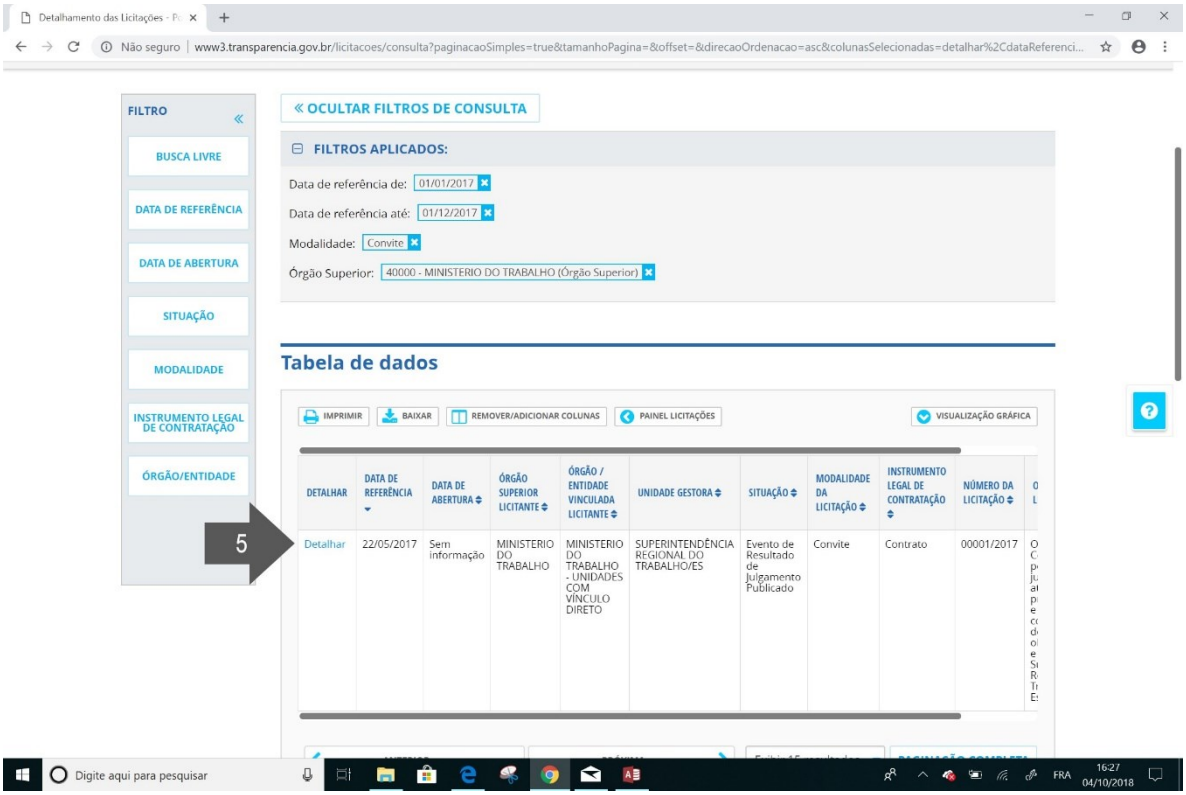
Under the tab Consultas Detalhadas (1), click on Licitaçoes (2).



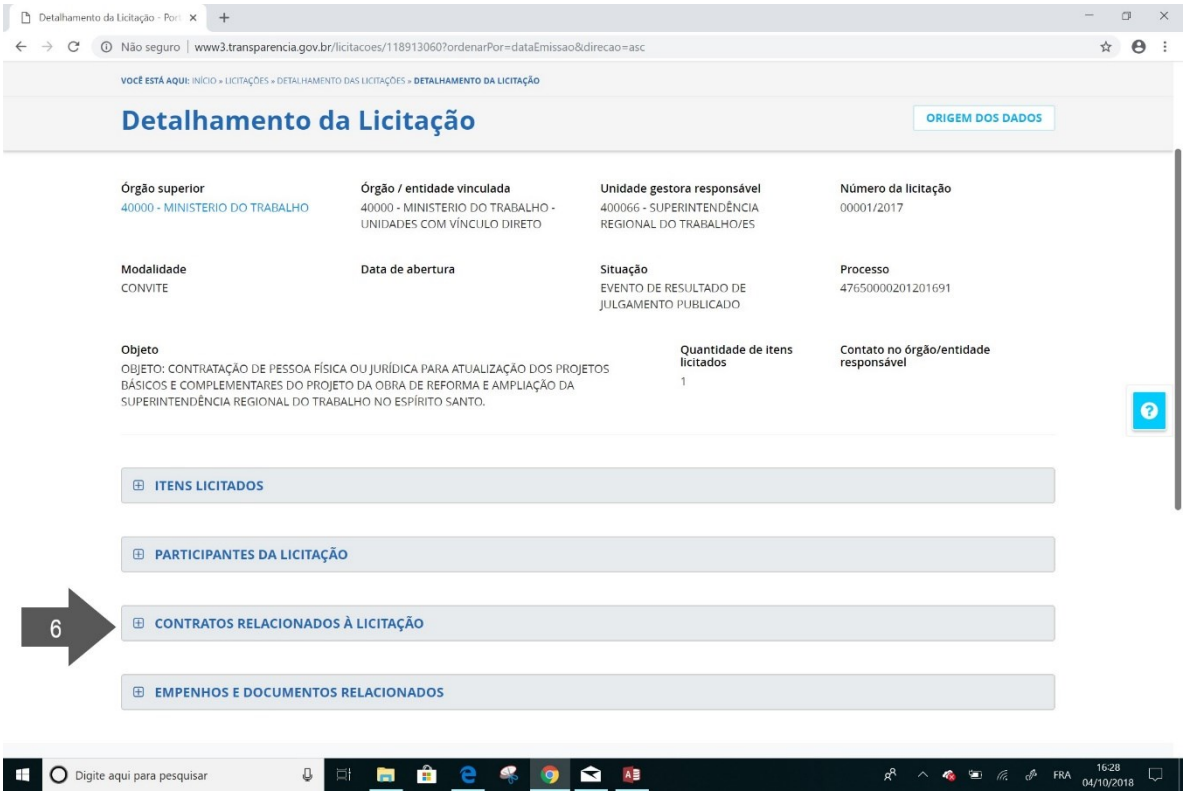
Inform the approximate date of the solicitation document (1), the solicitation method (2), the procuring entity (3) and click on Consultar (4).



In the resulting page, click on Detalhar (5) to get additional information.



From this page, it is possible to get information regarding contracts awarded (6).



Appendix 11: Request for information of additional documents

UASG	Procedure number	Situation	Request of information
090005	0009/2017	cancelled (documentation error)	Requested information by the website sei.trf1.jus.br in 10.10.2018. Reply in 30.10.2018: cancelled due to errors in the solicitation document.
926245	0002/2017	cancelled (no info)	Requested information in 10.10.2018 by email licitacoes@ceasa.df.gov.br Reply in 11.10.2018: cancelled, no reason provided, not replaced.
343034	0002/2017	cancelled (no info)	Requested information in 10.10.2018 by website http://portal.iphan.gov.br/contato Reply in 22.10.2018 demanding a new request by means of the system e-SIC. Requested information by means of the system e-SIC em 23.10.2018. número do protocolo: 01590.000995/2018-14. Reply in 24.10.2018 informing it was cancelled, no reason provided, not replaced. Not available anymore in Comprasnet as of 30.11.2018.
170394	0001/2016	cancelled (no info)	Requested information by means of the system e-SIC DF in 11.10.2018. número do protocolo: 00053.000083/2018-59. "On hold" in Comprasnet as of 30.11.2018. Reply in 18.10.2018 (e-SIC DF) informing it was cancelled, no reason provided, not replaced.
090027	0032/2017	cancelled (no info)	Requested information by email nulit@trf1.jus.br in 10.10.2018. No reply. Not available anymore in Comprasnet as of 30.11.2018. New request for information in 12.2.2019 by email selic.df@trf1.jus.br and by sei.trf1.jus.br "O seu contato foi recebido e registrado no Processo Administrativo 0003769-43.2019.4.01.8000. Um comprovante foi enviado para o e-mail informado." Replied in 13.2.2018: Cancelled, no information why.
090005	0018/2017	cancelled (no info)	Requested information in 10.10.2018 by the organization's website. No reply. The procurement document states that the subject matter is project for water system renovation. Not considered architectural service. Not available anymore in Comprasnet as of 30.11.2018. For these reasons I did not consider necessary to retrieve additional documents.
170217	0006/2017	cancelled (replaced)	Requested information to the "ouvidoria da Receita" in 10.10.2018. Reply in 22.10.2018: it was cancelled and replaced by process 11/2017.
090023	0009/2017	cancelled (replaced)	Requested information in 10.10.2018 by email selit.df@trf1.jus.br. Reply in 11.10.2018: it was cancelled and replaced by process 29/2017.

UASG	Procedure number	Situation	Request of information
158720	0004/2017	concluded	Requested information by email in 10.10.2018. Email did not work. Requested information again by means of the system e-ouv. Reply in 15.10.2018 informing a link to the documents in the organization's website: https://www.ufsb.edu.br/acesso-informacao/licitacoes-contratos/108-licitacoes/218-regime-diferenciado-de-contratacao/214-2017-licitacoesrdc/ No information regarding winner. Comprasnet informs that there is a winner.
153052	0005/2017	concluded	Requested information by means of the system e-SIC in 11.10.2018. número do protocolo: 23480.023635/2018-62. Replied in 18.10.2018, winner chosen. Information received by email.
925175	0001/2017	not relevant	Requested information by email cpl@confea.org.br in 11.10.2018. No reply. "On hold" in Comprasnet as of 30.11.2018. New request on 12.2.2019 by site http://transparencia.confea.org.br/sic/formulario-eletronico-de-pedido-de-acesso-a-informacao-pessoa-fisica/ Reply in 20.2.2019. Concluded. I received all docs concerning this procedure. In pages 254 and 455 it is consigned that no services exclusive for architects are procured. CAU asked for clarification on page 392. It was confirmed that there is no architectural service.

Appendix 12: Matrix report

020001 0001/2017	Senado Federal					
	open tendering	est. value	R$760.037,66	contr. value	R$445.173,53	
	quant items	3	concluded			
subject	Contratação de empresa especializada para prestação de serviços técnicos de Arquitetura e Engenharia compreendendo a elaboração de: anteprojetos; projeto legal; e projetos executivos no Complexo Arquitetônico do Senado Federal.					
obs	Técnica e preço. Sem informaçoes sobre contrato no comprasnet, mas consta informaçao no site do Senado. http://www.senado.leg.br/transparencia/liccontr/licitacoes/licitacoes.asp?m=O Valor arq total = R$332.308,18 (43,7% do valor estimado). Uma empresa foi inabilitada por apresentar atestados de arquiteto sem que os atestados estivessem registrados no CAU. b.7) Consideram-se serviços de características semelhantes às do objeto desta licitação em cada uma das Áreas Técnicas de Atuação, a elaboração de anteprojetos e projetos executivos que tenham características técnicas equivalentes ou superiores àquelas descritas neste Edital para edifícios comerciais ou de escritórios.					
protest	Sem informaçoes no comprasnet. Infos no site do Senado. Dois recursos, nao dizem respeito a arquitetura, nao foram aceitos. Esses recursos versam sobre um esclarecimento que alterou as exigências quanto a qualificaçao em engenharia de segurança no trabalho.					
Source	https://www6g.senado.gov.br/transparencia/licitacoes-e-contratos/licitacoes?objeto=&numero=1&data=&ano=2017&pregoes=false					
001	264	Estudos e Projetos - Instalações Prediais				
1	Anteprojetos e projetos executivos de arquitetura e engenharia para a adaptação da antiga oficina mecânica do COTRAN para receber a marcenaria. 1.230m2					
est. value	R$93.366,18	contr. value	R$84.026,77			
quant	1,00	unit	un	value unit		
quant. crit. prof	600,00	quant. crit. op.				
crit. prof.	Habilitaçao: Atestados devendo comprovar que os profissionais (arquiteto) executaram, de forma satisfatória, serviços técnicos de desenvolvimento de anteprojetos e projetos executivos compatíveis com a característica, o vulto e a complexidade do lote objeto da presente licitação do qual esteja participando.					
crit. op.	Habilitaçao: Possuir em seu quadro arquiteto com experiência na elaboração de anteprojetos e projetos executivos para edifícios comerciais ou de escritório. Proposta técnica avaliada por: Quantidade de experiência em cada area de atuaçao (arq, eng). Para arq sera considerado: Projeto Arquitetônico, referente a construção ou reforma de edificação comercial ou de serviços, com área de mínima de: Lote 1: 600m² Lote2: 2.300m² Lote 3: 1.700m² 6.1.3. Os atestados técnicos serão devidamente avaliados e, se válidos, atribuir-se-á a cada um deles 01 (um) ponto quando referirem-se às áreas técnicas de Instalações Hidráulicas e Sanitárias, Cabeamento Estruturado, Combate a Incêndio e Orçamentos, e 02 (dois) pontos quando referirem-se às áreas técnicas de Arquitetura e Obras Civis, Estruturas, Instalações Elétricas, Condicionamento de Ar e Exaustão					
obs	Prazo: 305 dias.					
002	264	Estudos e Projetos - Instalações Prediais				
1	Anteprojetos e projetos executivos de arquitetura e engenharia para a adaptação da área de abrigo do atual Serviço de Marcenaria e Serralheria para receber escritórios / Adaptação da Unidade de Apoio 1 e Bloco 6 para receber novos setores, incluindo a reforma da área da Secretaria de Gestão da Informação e Documentação - SGIDOC. 4.654m2					
est. value	R$374.603,30	contr. value	R$166.466,67			

quant	1,00	unit	un	value unit	
quant. crit. prof	2.300,00	quant. crit. op.			

crit. prof.	Habilitaçao: Atestados devendo comprovar que os profissionais (arquiteto) executaram, de forma satisfatória, serviços técnicos de desenvolvimento de anteprojetos e projetos executivos compatíveis com a característica, o vulto e a complexidade do lote objeto da presente licitação do qual esteja participando.
crit. op.	Habilitaçao: Possuir em seu quadro arquiteto com experiência na elaboração de anteprojetos e projetos executivos para edifícios comerciais ou de escritório. Proposta técnica avaliada por: Quantidade de experiência em cada area de atuaçao (arq, eng). Para arq sera considerado: Projeto Arquitetônico, referente a construção ou reforma de edificação comercial ou de serviços, com área de mínima de: Lote 1: 600m² Lote2: 2.300m² Lote 3: 1.700m² 6.1.3. Os atestados técnicos serão devidamente avaliados e, se válidos, atribuir-se-á a cada um deles 01 (um) ponto quando referirem-se às áreas técnicas de Instalações Hidráulicas e Sanitárias, Cabeamento Estruturado, Combate a Incêndio e Orçamentos, e 02 (dois) pontos quando referirem-se às áreas técnicas de Arquitetura e Obras Civis, Estruturas, Instalações Elétricas, Condicionamento de Ar e Exaustão
obs	Prazo: 305 dias

003	264	Estudos e Projetos - Instalações Prediais

1 Anteprojetos e projetos executivos de arquitetura e engenharia para a reforma do Bloco da SIS. 3.405m2

est. value	R$292.068,18	contr. value	R$194.680,09		
quant	1,00	unit	un	value unit	
quant. crit. prof	1.700,00	quant. crit. op.			

crit. prof.	Habilitaçao: Atestados devendo comprovar que os profissionais (arquiteto) executaram, de forma satisfatória, serviços técnicos de desenvolvimento de anteprojetos e projetos executivos compatíveis com a característica, o vulto e a complexidade do lote objeto da presente licitação do qual esteja participando.
crit. op.	Habilitaçao: Possuir em seu quadro arquiteto com experiência na elaboração de anteprojetos e projetos executivos para edifícios comerciais ou de escritório. Proposta técnica avaliada por: Quantidade de experiência em cada area de atuaçao (arq, eng). Para arq sera considerado: Projeto Arquitetônico, referente a construção ou reforma de edificação comercial ou de serviços, com área de mínima de: Lote 1: 600m² Lote2: 2.300m² Lote 3: 1.700m² 6.1.3. Os atestados técnicos serão devidamente avaliados e, se válidos, atribuir-se-á a cada um deles 01 (um) ponto quando referirem-se às áreas técnicas de Instalações Hidráulicas e Sanitárias, Cabeamento Estruturado, Combate a Incêndio e Orçamentos, e 02 (dois) pontos quando referirem-se às áreas técnicas de Arquitetura e Obras Civis, Estruturas, Instalações Elétricas, Condicionamento de Ar e Exaustão
obs	Prazo: 305 dias

040001 0072/2017	Supremo Tribunal Federal - STF					
	reverse auction	est. value	R$2.239.618,50	contr. value	R$1.827.189,90	
	quant items	1	concluded			
subject	Contratação de empresa para prestação de serviços de apoio técnico nas áreas de engenharia e arquitetura para elaboração de desenhos técnicos, atualização de sinalização visual e acompanhamento de serviços técnicos auxiliares, a serem prestados por meio de postos de trabalho					
obs	Para postos de serviço técnicos, incluindo desenhos de arquitetura.					
protest	Impugnaçao sobre preço inexequivel, nao foi aceita.					
Source	comprasnet					
001	5380	Prestação de Serviços de Apoio Administrativo				
2	prestação de serviços de apoio técnico nas áreas de engenharia e arquitetura para elaboração de desenhos técnicos, atualização de sinalização visual e acompanhamento de serviços técnicos auxiliares, a serem prestados por meio de nove postos de trabalho.Contrato de 30 meses.					
	est. value	R$2.239.618,50	contr. value	R$1.827.189,90		
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			
	crit. prof.					
	crit. op.	cópia(s) de contrato(s), atestado(s), declaração(ões) ou qualquer outro documento idôneo que comprove experiência mínima de 3 (três) anos na prestação de serviços de apoio técnico, ininterruptos ou não, até a data da sessão pública de abertura da licitação; f.4) o documento apresentado deverá comprovar, dentro dos posto de trabalho inclusos no serviço de apoio técnico, no mínimo, um profissional do posto de trabalho de Técnico em Construção Civil (Edificações) ou Eletrotécnico;					
	obs	3. QUANTITATIVO DE POSTOS DE TRABALHO Posto de Trabalho Quantidade de Profissionais Programador Visual Gráfico: 1 Técnico em Construção Civil Sênior (Edificações): 1 Técnico em Construção Civil Júnior (Edificações): 5 Eletrotécnico: 2 TOTAL 9				
080002 0002/2017	Tribunal Superior do Trabalho - 11ª Região/AM					
	open tendering	est. value	R$1.145.390,00	contr. value	R$893.404,20	
	quant items	1	concluded			
subject	Contratação de empresa especializada em engenharia para revisão e adaptação dos projetos técnicos da obra de construção do Fórum Trabalhista de Manaus/AM					
obs	Consta agendado no Comprasnet, mas ha informaçao sobre contrato na pagina do orgao. https://portal.trt11.jus.br/index.php/transparencia/aquisicoes/listar-contratos?cont=lists&ccname=Contrato&act=view&gcb=1966 Com aditivo de prorrogaçao por 60 meses. Nenhum documento nem ata disponivel. Solicitei informaçoes adicionais em 5.10.2018					
protest	Nenhuma informaçao sobre impugnacoes ou recursos.					
Source	https://portal.trt11.jus.br/index.php/transparencia/aquisicoes					
001	78	Estudos e Projetos de Arquitetura				
1	Contratação de empresa especializada em engenharia para revisão e adaptação dos projetos técnicos da obra de construção do Fórum Trabalhista de Manaus/AM. 26117,13m2					
	est. value	R$1.145.390,00	contr. value	R$893.404,20		
	quant	1,00	unit	un	value unit	

	quant. crit. prof	10.446,85	quant. crit. op.	10.446,85	
	crit. prof.	demonstre a Anotação de Responsabilidade Técnica - ART ou Registro de Responsabilidade Técnica - RRT, conforme tabela abaixo: 7.3.3.4.1. Elaboração de projeto arquitetônico; 7.3.3.5. Os projetos acima descritos devem ser elaborados para edificações de múltiplos pavimentos, com características, prazos e complexidade análogas ao prédio objeto desta licitação.			
	crit. op.	A empresa deverá apresentar um ou mais atestados de capacidade técnica, registrados no CREA ou CAU, fornecido por pessoa jurídica de direito público ou privado devidamente identificada, em nome do licitante, compatível em características, complexidades, quantidades e prazos com o objeto da presente licitação. Adotou-se o percentual padrão de 40% das áreas totais.			
	obs	Valor arquitetura = 343.617,00 (30%). arq + eng no mesmo item. Prazo 120 dias. Termo de referência: "1.3. Caberá ao licitante vencedor a identificação e levantamento das atuais necessidades deste TRT (programa de necessidades) para promover a revisão e adaptação dos projetos, nas diversas disciplinas técnicas envolvidas."			

080016 0019/2017	Tribunal Superior do Trabalho - 10ª Região/DF				
	reverse auction	est. value	R$1.650.000,00	contr. value	R$845.000,00
	quant items	1	concluded		
subject	Contratação de empresa para prestação de serviços técnicos de engenharia e arquitetura para as edificações e/ou projetos de até 4.500 m², contemplando a elaboração de projetos de engenharia e arquitetura, bem como a aprovação dos projetos para imóveis do TRT da 10ª Região. Item 1: DF. Item 2: TO.				
obs	A empresa deverá possuir e manter a seguinte equipe técnica mínima em seu quadro permanente ou mediante termo de compromisso do profissional para com a empresa: 1. 01 (um) arquiteto; 2. 01 (um) engenheiro civil; 3. 01 (um) engenheiro eletricista; e 4. 01 (um) engenheiro mecânico. No anexo solicita-se apresentar o arquivo digital com pelo menos um projeto completo com 2.250,00 m² desenvolvido em BIM (Building Information Model). No entanto, essa exigência nao está contida no edital. Uma empresa foi desclassificada por conta dessa exigência.				
protest					
Source	comprasnet				

001	22225	Serviço Engenharia	
2	contratação, por demanda, de empresa para a eventual prestação de serviços técnicos de engenharia e arquitetura para edificações e/ou projetos de até 4.500m², contemplando a elaboração de projetos de engenharia e arquitetura, consultoria técnica, análise, assessoria, especificações, estudo de viabilidade técnica, elaboração de orçamentos, emissão de laudos e pareceres, levantamentos, vistorias, sondagens, bem como aprovação dos projetos para imóveis do Tribunal Regional do Trabalho da 10.ª Região no Distrito Federal		
	est. value	R$1.600.000,00 contr. value	R$800.000,00
	quant	1,00 unit un	value unit
	quant. crit. prof	2.250,00 quant. crit. op.	
	crit. prof.	Comprovação de que possui em seu quadro de pessoal pelo menos: 1 (um) Arquiteto; Cada um dos profissionais indicados acima deverá ter experiência comprovada por meio da apresentação de acervo técnico composto por pelo menos um projeto com área mínima de 2.250 m², de edificações compatíveis com o objeto deste edital, não sendo considerado válido projetos residenciais	
	crit. op.	apresentar o arquivo digital com pelo menos um projeto completo com 2.250,00 m² desenvolvido em BIM (Building Information Model)	
	obs	Prazo: 30 meses. Contrataçao de um arq e 3 eng.	
002	22225	Serviço Engenharia	

2	contratação, por demanda, de empresa para a eventual prestação de serviços técnicos de engenharia e arquitetura para edificações e/ou projetos de até 4.500m², contemplando a elaboração de projetos de engenharia e arquitetura, consultoria técnica, análise, assessoria, especificações, estudo de viabilidade técnica, elaboração de orçamentos, emissão de laudos e pareceres, levantamentos, vistorias, sondagens, bem como aprovação dos projetos para imóveis do Tribunal Regional do Trabalho da 10.ª Região em Tocantins	
	est. value R$50.000,00 contr. value R$45.000,00	
	quant 1,00 unit un value unit	
	quant. crit. prof 2.250,00 quant. crit. op.	
	crit. prof.	Comprovação de que possui em seu quadro de pessoal pelo menos: 1 (um) Arquiteto; Cada um dos profissionais indicados acima deverá ter experiência comprovada por meio da apresentação de acervo técnico composto por pelo menos um projeto com área mínima de 2.250 m², de edificações compatíveis com o objeto deste edital, não sendo considerado válido projetos residenciais
	crit. op.	apresentar o arquivo digital com pelo menos um projeto completo com 2.250,00 m² desenvolvido em BIM (Building Information Model)
	obs	Prazo: 30 meses. Contrataçao de um arq e 3 eng.

080026 0001/2017	Tribunal Superior do Trabalho - 24ª Região/MS	
	request for quotations est. value R$132.926,35 contr. value R$82.623,68	
	quant items 1 concluded	
subject	ontratação de empresa especializada para a elaboração de projetos executivos, sendo a compatibilização, as disciplinas de arquitetura e de estruturas com desenvolvimento em plataforma bim (building information modeling), caderno de encargos (especificações, orçamento com curva abc), cronogramas (caminho crítico tipo pert-cpm, físico-financeiro e descritivo) destinados a execução da construção da nova sede que abrigará a Vara do Trabalho de Jardim - MS	
obs	Consta como agendada no Comprasnet, nao consta contrato no Comprasnet, mas consta resultado no site do orgao. http://www.trt24.jus.br/contas_publicas/licitacoes.jsf arq+ eng no mesmo item. O preço estimado da obra a ser orçado (conforme item 15 do quadro acima) pela contratada será de, no máximo, R$ 1.200.000,00 Poder judiciario. Nao disponivel no site transparência.	
protest	Sem informaçoes sobre recurso (comprasnet e site do orgao).	
Source	http://www.trt24.jus.br/contas_publicas/licitacoes.jsf	

001	20060	Elaboração / Análise Projeto - Engenharia
1	Projeto executivo e legal de arquitetura (Área construída = 501,74 m²) (acessibilidade, esquadrias, cobertura, paginação de piso e forro, detalhamento de áreas úmidas, urbanização, paisagismo, comunicação visual e modelo 3D - maquete eletrônica). Desenvolvimento e entrega final em plataforma BIM. (+ projetos de eng).	
	est. value R$132.926,35 contr. value R$82.623,68	
	quant 1,00 unit un value unit	
	quant. crit. prof quant. crit. op. 250,00	
	crit. prof.	comprovação de que possui em seu quadro de pessoal,, responsável(is) técnico(s) (engenheiro civil ou arquiteto) detentor(es) de Certidões de Acervo Técnico (CAT emitida pelo CREA / CAU), por execução de serviços semelhantes com as características qualitativas mencionadas nos subitens 8.5.3.1 ao 8.5.3.4, sem qualquer limitação mínima de quantitativo projetado: 8.5.3.1.S□upervisão ou coordenação de projetos; 8.5.3.2.P□rojeto executivo de arquitetura;
	crit. op.	um ou mais atestado(s) de capacidade técnica fornecido(a)(s) por pessoa(s) jurídica(s) de direito público ou privado, devidamente registrado(s) pelo CREA / CAU, que comprove(m) a prestação de serviços, pela empresa licitante, com as características semelhantes ao objeto da contratação,

		com área construída mínima de 250m²
	obs	Prazo: 90 dias. Valor arq: R$38.133,75 (28,7% do valor estimado).

090003 0031/2017	Justiça Federal - Seção Judiciária do Pará					
	reverse auction	est. value	R$48.584,53	contr. value	R$9.300,00	
	quant items	1	concluded			
subject	Contratação de empresa especializada em serviços de engenharia e/ou arquitetura para prestação de serviços de atualização e elaboração dos projetos arquitetônicos e readequação das vagas do estacionamento do prédio sede da Seção Judiciária do Pará e do prédio anexo, intitulado Casa Rosada					
obs	Valor contratado parece bem baixo. O ganhador informa que vai cobrar um salario de 2 mil reais por mês para o engenheiro. O valor do salario de auxiliar desenhista é de 700 reais, abaixo do salario minimo vigente à época (R$937,00).					
protest	Na ata: "A Empresa será habilitada e logo em seguida será aberto prazo para intenção de recurso que permanecerá aberto no Sistema por 20 minutos.". Nenhum recurso apresentado.					
Source	comprasnet					
001	78	Estudos e Projetos de Arquitetura				
1	atualização e elaboração dos projetos arquitetônicos e readequação das vagas do estacionamento (nao ha desenhos arquitetonicos atualmente) (delimitar vagas e inserir vagas para deficientes/idosos). Sem informaçoes sobre a area.					
est. value	R$48.584,53	contr. value	R$9.300,00			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.				
crit. prof.	Comprovaçao de engenheiro ou arquiteto (com crea ou cau) no quadro permanente da empresa.					
crit. op.						
obs	Prazo: 120 dias. 100% arquitetura.					

090012 0001/2017	Justiça Federal de 1° Grau – Seção Judiciária da Bahia					
	reverse auction	est. value	R$246.981,60	contr. value		
	quant items	1	cancelled (no suitable bids)			
subject	Contratação de empresa de arquitetura para prestação de serviços técnicos, de forma continuada e com a locação de um profissional, a serem executados na sede da Justiça Federal - Seção Judiciária do Estado da Bahia e Subseções (interior do estado)					
obs	Item cancelado na aceitação. Motivo: Nenhuma das empresas convocadas detém o documento exigido no subitem 8.1.5.1 do edital. Critério exagerado, levou ao cancelamento de duas licitaçoes - mas nao se trata de critério técnico de arquitetura.					
protest						
Source	comprasnet					
001	22225	Serviço Engenharia				
2	Contratação de empresa de arquitetura para prestação de serviços técnicos, de forma continuada e com a locação de um profissional, a serem executados na sede da Justiça Federal - Seção Judiciária do Estado da Bahia e Subseções (interior do estado)					
est. value	R$246.981,60	contr. value				
quant		unit		value unit		
quant. crit. prof	350,00	quant. crit. op.				
crit. prof.	Certidoes nas quais nconste pelo menos a execução dos seguinte serviços: • elaboração de projeto arquitetônico com área construída igual ou superior a 350m²; • fiscalização ou execução de obras com área construída igual ou superior a 350m².					
crit. op.	8.1.5.1 As empresas deverão comprovar aptidão para desempenho de atividade compatível em					

			características, quantidades e prazos com o objeto da licitação, logo, deverão apresentar 01 (um) atestado de qualificação técnica, fornecido por pessoa jurídica de direito público ou privado (este, com firma reconhecida), comprovando que tenham executado serviço de terceirização com um mínimo de 20 postos e por período não inferior a 36 meses.			
		obs				
090012 0006/2017		Justiça Federal de 1º Grau – Seção Judiciária da Bahia				
		reverse auction	est. value	R$246.981,60	contr. value	
		quant items 1	cancelled (no suitable bids)			
	subject	Contratação de empresa para prestação de serviço continuado de profissional de arquitetura				
	obs	Item cancelado na aceitação. Motivo: Falta de proposta válida. As empresas participantes não observaram o exigido no item 8.15.1 do edital Item 8.1.5.1: "comprovando que tenham executado serviço de terceirização com um mínimo de 20 postos e por período não inferior a 36 meses."				
	protest					
	Source	comprasnet				
001	5380	Prestação de Serviços de Apoio Administrativo				
2	Posto de trabalho de um arquiteto durante 12 meses. 30 horas semanais.					
	est. value	R$246.981,60	contr. value			
	quant 1,00	unit un	value unit			
	quant. crit. prof 300,00	quant. crit. op.				
	crit. prof.	Certidões de Acervo Técnico e RRT – Registro de Responsabilidade Técnica (ou antigas ART – Anotação de Responsabilidade Técnica), nas quais conste pelo menos a execução dos seguintes serviços: • elaboração de projeto arquitetônico com área construída igual ou superior a 300m²; • fiscalização ou execução de obras com área construída igual ou superior a 300m².				
	crit. op.	Atestado comprovando que tenham executado serviço de terceirização com um mínimo de 20 postos e por período não inferior a 36 meses.				
	obs	Habilitaçao técnica parece injustificada, tanto é que nenhuma empresa se qualificou.				
090012 0023/2017		Justiça Federal de 1º Grau – Seção Judiciária da Bahia				
		reverse auction	est. value	R$120.000,00	contr. value	R$78.210,00
		quant items 1	concluded			
	subject	CONTRATAÇÃO DE EMPRESA ESPECIALIZADA EM ENGENHARIA E ARQUITETURA PARA PRESTAÇÃO DE SERVIÇOS DE ELABORAÇÃO DOS ESTUDOS PRELIMINARES, ANTEPROJETOS, PROJETOS BÁSICOS E EXECUTIVOS PARA A CONSTRUÇÃO DO EDIFÍCIO GARAGEM DO COMPLEXO DOS JUIZADOS ESPECIAIS FEDERAIS (JEF) DA SEÇÃO JUDICIÁRIA DA BAHIA NA CIDADE DE SALVADOR				
	obs					
	protest					
	Source	comprasnet				
001	78	Estudos e Projetos de Arquitetura				
1	elaboração dos estudos preliminares, anteprojetos, projetos básicos e executivos para a construção do Edifício Garagem do Complexo dos Juizados Especiais Federais 8.000m2 O Edifício Garagem será composto, além do pavimento térreo, de pavimentos em subsolo, cujo quantitativo será para atender, pelo menos, a demanda mínima de vagas exigidas pela Prefeitura Municipal de Salvador, somando-se as vagas de estacionamento já existentes. Em cada pavimento, elevadores, escadas e shafts deverão ser estrategicamente localizados em função de previsão de acréscimo futuro de 06 (seis) pavimentos superiores para abrigar áreas jurisdicionais e área técnica e reservatórios.				
	est. value	R$120.000,00	contr. value	R$78.210,00		

quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.	4.000,00		

crit. prof.	1 (um) Arquiteto, 1 (um) Engenheiro Civil, 1 (um) Engenheiro Eletricista e 1 (um) Engenheiro Mecânico, detentor(es) de Atestado(s) de Capacidade Técnica com a(s) respectiva(s) CAT e ART e/ou RRT, fornecido(s) por Órgão da Administração Pública ou entidade privada, devidamente registrado(s) nos órgãos fiscalizadores, que comprove(m) a capacidade para a execução de serviços similares ao objeto desta licitação sendo considerada parcela de maior relevância: a) Projeto de arquitetura de edificações públicas ou privadas;
crit. op.	atestados técnicos emitidos por pessoas jurídicas (públicas ou privadas), comprovando que a empresa executou os respectivos serviços: a) Projeto de arquitetura de edificações públicas ou privadas, com pelo menos 4.000m²
obs	Prazo: 120 dias. Arq: 34,5% do valor estimado (p.21 do edital).

090012 0041/2017	Justiça Federal de 1° Grau – Seção Judiciária da Bahia				
	reverse auction	est. value	R$112.616,04	contr. value	R$51.000,00
	quant items	1	concluded		

subject	Contratação de empresa do ramo de engenharia e arquitetura para prestação de serviços de análise in loco de remanescente de obra, atualização de planilha orçamentária, projetos executivos, memoriais descritivos, bem como consecução de alvarás, licenças e demais aprovações necessárias para finalização do projeto de construção do edifício sede da Subseção Judiciária de Guanambi
obs	Arq + Eng no mesmo item.
protest	
Source	comprasnet

001	20060	Elaboração / Análise Projeto - Engenharia

1 serviços de análise in loco de remanescente de obra, atualização de planilha orçamentária, projetos executivos, memoriais descritivos, bem como consecução de alvarás, licenças e demais aprovações necessárias para finalização do projeto de construção do edifício sede da Subseção Judiciária de Guanambi (revisao e atualizaçao de projeto executivo)
área total construída é de 2.075,59 m²

est. value	R$112.616,04			contr. value	R$51.000,00
quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.	500,00		

crit. prof.	Comprovação do licitante de possuir em seu quadro técnico, na data prevista para a entrega da proposta, engenheiro/arquiteto, detentores de Atestado que comprovem a capacidade para a execução de serviços de características semelhantes ao objeto deste Projeto Básico; projetos pertinentes e compatíveis em características, qualidade e quantidade, sendo considerada parcela de maior relevância: a) Projeto de arquitetura de edificações públicas ou privadas;
crit. op.	atestados de capacidade técnica emitidos por pessoas jurídicas (públicas ou privadas), comprovando que a empresa executou os respectivos serviços: a) Projeto de arquitetura de edificações públicas ou privadas, com pelo menos 500m²;
obs	Prazo: 85 dias Valor arquitetura: 20.692,90 (18,4% do valor orçado).

090023 0029/2017	Justiça Federal - Seção Judiciária do Distrito Federal					
	reverse auction	est. value	R$241.667,51	contr. value	R$81.700,00	
	quant items	1	concluded			
subject	Contratação de empresa especializada em engenharia e arquitetura para prestação de serviços para elaboração dos estudos preliminares, anteprojetos, projetos básicos, executivos e projeto legal para reforma do edifício Sede III da Seção Judiciária do Distrito Federal.					
obs	Arq + complementares (eng) no mesmo item. O uso do pregão nas contratações de serviços comuns de engenharia encontra amparo na Lei 10.520/2002 (Súmula 257/2010/TCU);					
protest	Uma impugnacao (negada) questionando taxas referentes a aprovaçao dos projetos. Um recurso referente a inexequibilidade de preços. A empresa nao apresentou documentos comprovando a exequibilidade, mas apenas uma declaraçao de que serà responsavel pelo valor. O recurso foi negado. Situaçao nebulosa.					
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	elaboração dos estudos preliminares, anteprojetos, projetos básicos, executivos e projeto legal para reforma do edifício Sede III da Seção Judiciária do Distrito Federal. 11.416m2					
est. value	R$241.667,51	contr. value	R$81.700,00			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.	3.000,00			
crit. prof.	Atestados que comprovem a execuçao de serviço(s) relativo(s) à elaboração de projetos pertinentes e compatíveis em características, qualidade e quantidade, sendo consideradas parcelas de maior relevância e valor significativo: a) Projeto de arquitetura de edificações					
crit. op.	atestado(s) que comprove(m) que a licitante tenha executado os seguintes serviços com as respectivas quantidades mínimas: a) Projeto de arquitetura de edificações públicas ou privadas, com pelo menos 3.000,00 m²;					
obs	Prazo: 306 dias. Valor arquiteto: R$60.339,69 (30% do valor total)					
090023 0059/2017	Justiça Federal - Seção Judiciária do Distrito Federal					
	reverse auction	est. value	R$242.693,15	contr. value	R$124.999,72	
	quant items	1	concluded			
subject	Contratação de empresa especializada em engenharia e arquitetura para prestação de serviços de elaboração de um projeto para reforma do edifício Sede I e Anexo da Justiça Federal de Primeiro Grau - Seção Judiciária do Distrito Federal - SJDF, compreendendo estudos preliminares, anteprojetos, projetos básicos, executivos e legal.					
obs	Serviços de arq + eng no mesmo item.					
protest						
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	elaboração de um projeto para reforma do edifício SEDE I e Anexo da Seção Judiciária do Distrito Federal, compreendendo estudos preliminares, anteprojetos, projetos básicos, executivos e legal. Total 10.125m2					
est. value	R$242.693,15	contr. value	R$124.999,72			
quant	1,00	unit	un	value unit		
quant. crit. prof	3.000,00	quant. crit. op.	3.000,00			
crit. prof.	Atestados de serviço(s) relativo(s) à elaboração de projetos pertinentes e compatíveis em características, qualidade e quantidade, sendo consideradas parcelas de maior relevância e valor significativo: a) Projeto de arquitetura de edificações, públicas ou privadas, com pelo menos 3.000,00 m²;					

	crit. op.	atestado que comprove a execução dos seguintes serviços com as respectivas quantidades mínimas: a) Projeto de arquitetura de edificações públicas ou privadas, com pelo menos 3.000,00 m²;
	obs	

090038 0004/2017	Justiça Federal - Seção Judiciário do Estado do Tocantins					
	reverse auction	est. value	R$25.635,72	contr. value	R$19.200,00	
	quant items	1	concluded			
subject	Contratação de empresa de engenharia e arquitetura para a fiscalização e assessoramento do recebimento dos projetos relativos à localidade (fase 02) do projeto padrão objetivando a construção da nova sede da Subseção Judiciária de Araguaína-TO					
obs	Consultoria de arq + eng no mesmo item.					
protest						
Source	comprasnet					

001	78	Estudos e Projetos de Arquitetura
5	fiscalização e assessoramento do recebimento de projetos e afins relativos à execução de obra da nova sede da subseçao judiciaria em Araguaina. 2.000m2.	
	est. value R$25.635,72	contr. value R$19.200,00
	quant 1,00 unit un	value unit
	quant. crit. prof 1.000,00	quant. crit. op.
	crit. prof.	Atestado comprovando elaboraçao e/ou fiscalizaçao de projetos de arquitetura de, no minimo, 1.000m2, distribuida em dois pavimentos, no minimo.
	crit. op.	Possuir arquiteto em seu quadro.
	obs	Prazo: 228 dias. Sem indicaçao do valor de arquitetura. Serviço de consultoria. Devera produzir relatorio técnico observando a conformidade do projeto ao que foi solicitado.

120196 0001/2017	Ministério da Defesa - Grupamento de Apoio da Saude					
	request for quotations	est. value	R$599.500,00	contr. value	R$382.812,50	
	quant items	1	concluded			
subject	CONTRATAÇÃO DE EMPRESA PARA ELABORAÇÃO DOS PROJETOS EXECUTIVOS E CADERNOS DE ENCARGOS COMPLEMENTARES COM AS ESPECIFICAÇÕES TÉCNICAS E PLANILHAS DE MATERIAIS E SERVIÇOS PARA AMPLIAÇÃO DO PRÉDIO DA UNIDADE DE TRATAMENTO INTENSIVO DO HOSPITAL DA FORÇA AÉREA DO GALEÃO (HFAG), EM CONFORMIDADE COM O PROJETO BÁSICO JÁ FORNECIDO, DESENVOLVIMENTO DO PROJETO BÁSICO DE ARQUITETURA E PROJETOS EXECUTIVOS COMPLEMENTARES, COM DETALHAMENTO EM ESCALAS ADEQUADAS PARA FUTURA EXECUÇÃO DAS OBRAS DE REFORMAS, DA ONCOLOGIA E DO PRONTO SOCORRO ADULTO, COM ÁREA APROXIMADA DE 4756,00 M , NAS QUANTIDADES E CONDIÇÕES ESTABELECIDAS NESTE EDITAL.					
obs	All services (architecture and engineering) in one item. Nenhuma informaçao sobre como o valor foi determinado. Uma empresa foi desclassificada por preço inexequivel (300 mil, abaixo de 70% da média de todas as outras). Nao ha informaçoes sobre manifestaçao da empresa desclassificada. No documento ata de abertura de preços, contam diversos questionamentos, mas nenhuma menção a manifestaçao do orgao nem das empresas questionadas.					
protest	Sem impugnaçao nem recurso, o que é estranho numa licitaçao desse valor.					
Source	Comprasnet					

001	20060	Elaboração / Análise Projeto - Engenharia
1	Desenvolvimento de projeto basico e elaboraçao de projetos executivos (arquitetura e engenharia) - obra de reforma (272m2) e ampliaçao (4482,60m2) de hospital - (total: 4756m2).	
	est. value R$599.500,00	contr. value R$382.812,50

	quant	1,00	unit	un	value unit		
	quant. crit. prof			quant. crit. op.			
	crit. prof.	Certidao em nome do profissional relativo a execuçao dos seriços que compoem as parcelas de maior relevância técnica - e valor significativo de contrataçao.					
	crit. op.	Certidao de execuçao de projeto executivo de arquitetura.					
	obs	Serviços de arquitetura e engenharia num mesmo item. Valor dos serviços de arquitetura: R$100.000,00 (16,6% do valor orçado).					
152663 0015/2017	Instituto Federal de Educação, Ciência e Tecnologia Catarinense – Campus Luzerna						
	reverse auction	est. value	R$212.194,67	contr. value	R$94.740,61		
	quant items	34	concluded				
subject	Contratação de empresa especializada para elaboração de projeto básico completo para edificação de um Prédio Multifunção e da pavimentação interna e passeios, contendo a elaboração de projeto arquitetônico e urbanístico, demais projetos complementares, memorial descritivo e orçamento referência						
obs	6 items for architecture.						
protest	Uma impugnaçao solicitando que sejam aceitos atestados referentes a projetos residencias e institucionais de multiplos pavimentos, e nao apenas projetos comerciais. Esta impugnaçao nao foi analisada pois foi intempestiva. Segunda impugnaçao refere-se a exigência de atestados em nome da empresa. Foi julgada nao cabivel, pois os atestados em nome de profissionais podem ser vinculados a empresas. Nao houve recursos.						
Source	comprasnet						
001	20060	Elaboração / Análise Projeto - Engenharia					
1	estudo preliminar de um prédio multifunção						
	est. value	R$6.166,67	contr. value	R$1.099,99			
	quant	1,00	unit	un	value unit		
	quant. crit. prof			quant. crit. op.			
	crit. prof.	Atestado em nome do profissional comprovando sua responsabilidade técnica na execuçao de serviços compativeis com as caracteristicas constantes no termo de referência (edificio comercial).					
	crit. op.	Atestado que comprove a aptidão para executar serviços com caracteristicas semelhantes ao objeto desta licitaçao					
	obs						
002	20060	Elaboração / Análise Projeto - Engenharia					
1	projeto arquitetônico preliminar de um prédio multifunção						
	est. value	R$18.000,00	contr. value	R$6.999,99			
	quant	2.400,00	unit	m2	value unit		
	quant. crit. prof	1.000,00		quant. crit. op.	1.000,00		
	crit. prof.	Atestado em nome do profissional comprovando sua responsabilidade técnica na execuçao de serviços compativeis com as caracteristicas constantes no termo de referência (edificio comercial).					
	crit. op.	Atestado que comprove a aptidão para executar serviços com caracteristicas semelhantes ao objeto desta licitaçao					
	obs						
003	20060	Elaboração / Análise Projeto - Engenharia					
1	projeto arquitetônico de um prédio multifunção (proj. basico)						
	est. value	R$22.000,00	contr. value	R$11.999,99			
	quant	2.400,00	unit	m2	value unit		
	quant. crit. prof	1.000,00		quant. crit. op.	1.000,00		
	crit. prof.	Atestado em nome do profissional comprovando sua responsabilidade técnica na execuçao de					

		serviços compativeis com as caracteristicas constantes no termo de referência (edificio comercial).
	crit. op.	Atestado que comprove a aptidão para executar serviços com caracteristicas semelhantes ao objeto desta licitaçao
	obs	

023	20060	Elaboração / Análise Projeto - Engenharia
1	estudo preliminar para pavimentação interna e passeios	

est. value	R$3.333,33	contr. value	R$2.575,99		
quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.			

crit. prof.	Atestado em nome do profissional comprovando sua responsabilidade técnica na execuçao de serviços compativeis com as caracteristicas constantes no termo de referência (projeto urbanistico de sistema viario).
crit. op.	Atestado que comprove a aptidão para executar serviços com caracteristicas semelhantes ao objeto desta licitaçao
obs	

024	20060	Elaboração / Análise Projeto - Engenharia
1	projeto preliminar para pavimentação interna e passeios	

est. value	R$8.000,00	contr. value	R$2.870,99		
quant	1.500,00	unit	m2	value unit	
quant. crit. prof	700,00	quant. crit. op.	700,00		

crit. prof.	Atestado em nome do profissional comprovando sua responsabilidade técnica na execuçao de serviços compativeis com as caracteristicas constantes no termo de referência (projeto urbanistico de sistema viario).
crit. op.	Atestado que comprove a aptidão para executar serviços com caracteristicas semelhantes ao objeto desta licitaçao
obs	

025	20060	Elaboração / Análise Projeto - Engenharia
1	projeto urbanístico de sistema viário e acessibilidade para pavimentação interna e passeios	

est. value	R$9.500,00	contr. value	R$2.352,99		
quant	1.500,00	unit	m2	value unit	
quant. crit. prof	700,00	quant. crit. op.	700,00		

crit. prof.	Atestado em nome do profissional comprovando sua responsabilidade técnica na execuçao de serviços compativeis com as caracteristicas constantes no termo de referência (projeto urbanistico de sistema viario).
crit. op.	Atestado que comprove a aptidão para executar serviços com caracteristicas semelhantes ao objeto desta licitaçao
obs	

153047 0019/2017	Hospital Universitário Cassiano Antônio Moraes					
	reverse auction	est. value	R$551.149,40	contr. value	R$168.770,00	
	quant items	28	concluded			
subject	Contratação De Empresa Especializada Na Prestação De Serviços De Elaboração De Projetos Executivos De Arquitetura E Engenharia, Incluindo Estudos, Relatórios, Memoriais Descritivos E Orçamentos					
obs	Registro de preço. Items refer to "projeto executivo", but "projeto basico" is also required. "Salienta-se que o serviço contratado se enquadra como contínuo, pois o HUCAM passa por um processo de modernização e de adequação das instalações e das edificações dos setores, visando a prover condições adequadas de trabalho aos funcionários e pacientes, e sua interrupção acarretará a descontinuidade das atividades da Administração inerentes a este processo." (REFORMA)					
protest						
Source	comprasnet					
001	78	Estudos e Projetos de Arquitetura				
1	Projeto Executivo de Implantação					
est. value		R$5,33	contr. value	R$1,01		
quant	5.000,00	unit	m2	value unit	1	
quant. crit. prof	5.000,00	quant. crit. op.				
crit. prof.	Certidão de Acervo Técnico comprovando elaboraçao de projeto (anexo I p.67)					
crit. op.	71.1.Comprovação de que a licitante forneceu, sem restrição, objeto igual ou semelhante ao indicado no Anexo I do edital					
obs						
002	78	Estudos e Projetos de Arquitetura				
1	Projeto Executivo Arquitetônico					
est. value		R$6,35	contr. value	R$1,01		
quant	5.000,00	unit	m2	value unit	1	
quant. crit. prof	5.000,00	quant. crit. op.				
crit. prof.	Certidão de Acervo Técnico comprovando elaboraçao de projeto (anexo I p.67)					
crit. op.	71.1.Comprovação de que a licitante forneceu, sem restrição, objeto igual ou semelhante ao indicado no Anexo I do edital					
obs						
024	78	Estudos e Projetos de Arquitetura				
1	Projeto Executivo de Acessibilidade					
est. value		R$3,93	contr. value	R$1,00		
quant	5.000,00	unit	m2	value unit	1	
quant. crit. prof		quant. crit. op.				
crit. prof.	nihil					
crit. op.	71.1.Comprovação de que a licitante forneceu, sem restrição, objeto igual ou semelhante ao indicado no Anexo I do edital					
obs						
025	78	Estudos e Projetos de Arquitetura				
1	Projeto Executivo de Sinalização e Comunicação Visual					
est. value		R$4,04	contr. value	R$0,86		
quant	5.000,00	unit	m2	value unit	1	
quant. crit. prof		quant. crit. op.				
crit. prof.	nihil					

	crit. op.	71.1.Comprovação de que a licitante forneceu, sem restrição, objeto igual ou semelhante ao indicado no Anexo I do edital
	obs	

153052 0005/2017	Universidade Federal de Goiás					
	request for quotations	est. value	R$8.475.000,00	contr. value	R$5.592.800,00	
	quant items 21	concluded				
subject	Contratação de empresa de arquitetura/engenharia para a prestação de serviços técnicos compreendendo a elaboração de projetos e outros serviços necessários à construção e conservação dos imóveis da UFG.					
obs	Técnica e preço. Sem info sobre o valor. Nenhuma informaçao sobre contrato no comprasnet nem no site do orgao. O site do orgao diz "As informações disponíveis são atualizadas periodicamente. Para acompanhar a situação real das licitações, deve-se consultar o site de compras do Governo Federal (Comprasnet)." Na pagina de transparência, consta realizada, com resultados. Nao ha como acessar informaçoes sobre atas ou recursos. Nao ha nenhum registro de contrato assinado na pagina de transparência. Valores altos. Um grupo (projeto de gases) nao teve ganhador.					
protest	Sem informaçoes disponiveis.					
Source	comprasnet					

018	78	Estudos e Projetos de Arquitetura				
1	Arquitetura - Projeto de Arquitetura do edifício (incluindo aprovação nos Órgãos competentes e outros serviços especificados)					
	est. value	R$1.150.000,00	contr. value	R$713.000,00		
	quant 50.000,00	unit m2	value unit			
	quant. crit. prof		quant. crit. op.			
	crit. prof.	Habilitaçao:Certidão de Registro e Quitação da Proponente e de seus Responsáveis Técnicos, expedido pelo CREA E/OU CAU do local da sede da Empresa e/ou declaração dos responsáveis técnicos de vinculação contratual futura. Proposta técnica: apresentação de um ou mais atestados de capacidade técnica, registrados no CREA/CAU, fornecido por pessoa jurídica de direito público ou privado devidamente identificada, em nome do licitante, relativo à execução de obra de engenharia,compatível em características, quantidades e prazos com o objeto da presente licitação.				
	crit. op.	Proposta técnica: apresentação de um ou mais atestados de capacidade técnica, registrados no CREA/CAU, fornecido por pessoa jurídica de direito público ou privado devidamente identificada, em nome do licitante, relativo à execução de obra de engenharia,compatível em características, quantidades e prazos com o objeto da presente licitação. Certidões que comprovam execução de serviços: Projeto arquitetônico, para edificação com área igual ou superior a 1200m²				
	obs	Item 24 and Anexo IV: pesos				

019	78	Estudos e Projetos de Arquitetura				
1	Arquitetura - Projeto de Acústica					
	est. value	R$750.000,00	contr. value	R$600.000,00		
	quant 50.000,00	unit m2	value unit			
	quant. crit. prof		quant. crit. op.			
	crit. prof.	Habilitaçao:Certidão de Registro e Quitação da Proponente e de seus Responsáveis Técnicos, expedido pelo CREA E/OU CAU do local da sede da Empresa e/ou declaração dos responsáveis técnicos de vinculação contratual futura. Proposta técnica: apresentação de um ou mais atestados de capacidade técnica, registrados no CREA/CAU, fornecido por pessoa jurídica de direito público ou privado devidamente identificada, em nome do licitante, relativo à execução de obra de engenharia,compatível em características, quantidades e prazos com o objeto da presente licitação.				

crit. op.	Proposta técnica: apresentação de um ou mais atestados de capacidade técnica, registrados no CREA/CAU, fornecido por pessoa jurídica de direito público ou privado devidamente identificada, em nome do licitante, relativo à execução de obra de engenharia,compatível em características, quantidades e prazos com o objeto da presente licitação. Certidões que comprovam execução de serviços: Projeto de Acústica, para edificação/ambientes com área igual ou superior a 1200m²	
obs	Item 24 and Anexo IV: pesos	

020	78	Estudos e Projetos de Arquitetura

1	Arquitetura - Projeto de Luminotécnica				
est. value	R$450.000,00	contr. value	R$360.000,00		
quant	50.000,00	unit	m2	value unit	
quant. crit. prof		quant. crit. op.			

crit. prof.	Habilitaçao:Certidão de Registro e Quitação da Proponente e de seus Responsáveis Técnicos, expedido pelo CREA E/OU CAU do local da sede da Empresa e/ou declaração dos responsáveis técnicos de vinculação contratual futura. Proposta técnica: apresentação de um ou mais atestados de capacidade técnica, registrados no CREA/CAU, fornecido por pessoa jurídica de direito público ou privado devidamente identificada, em nome do licitante, relativo à execução de obra de engenharia,compatível em características, quantidades e prazos com o objeto da presente licitação.
crit. op.	Proposta técnica: apresentação de um ou mais atestados de capacidade técnica, registrados no CREA/CAU, fornecido por pessoa jurídica de direito público ou privado devidamente identificada, em nome do licitante, relativo à execução de obra de engenharia,compatível em características, quantidades e prazos com o objeto da presente licitação. Certidões que comprovam execução de serviços: Projeto de Luminotécnica, para edificação com área igual ou superior a 1200m²
obs	Item 24 and Anexo IV: pesos

153103 0024/2017	Universidade Federal do Rio Grande do Norte				
	RDC	est. value	**R$194.026,00**	contr. value	**R$140.000,00**
	quant items	1	concluded		
subject	Contratação de empresa especializada na área de projetos executivos de arquitetura (incluindo todos os relatórios: cadastramento do imóvel, mapeamento de danos e pesquisa histórica de acordo com os padrões do **IPHAN**), projeto de acessibilidade, projeto de fundação/estrutura, instalações elétricas/dados/voz/spda, instalações hidrossanitárias/drenagem, sistema de combate à incêndio, sistema de climatização, projeto de comunicação visual e sinalização e planilha orçamentária para a restauração do edifício da antiga **SEMUT**				
obs	Arq (reforma ed. patrimonial) + complementares + levantamentos no mesmo item.				
protest					
Source	comprasnet				

001	18430	Obras Civis - Cálculo Estrutural

1	projetos de Arquitetura e Engenharia para elaboração do Projeto Executivo referente à Restauração do Edifício da Antiga SEMUT 2.087m2				
est. value	R$194.026,00	contr. value	R$140.000,00		
quant	1,00	unit	un	value unit	
quant. crit. prof	850,00	quant. crit. op.	510,00		

crit. prof.	a)Elaboração de projeto de arquitetura, em edifício de restauro com área de construção superior a 850m2
crit. op.	a)Elaboração de projeto de arquitetura, em edifício de restauro com área de construção superior a 510m2
obs	Prazo: 150 dias Arq: R$57.087,78 (29,4% do valor estimado).

FORNECIMENTO DE ESTUDO, PROJETO EXECUTIVO E MEMORIAL DESCRITIVO DE ARQUITETURA, SEGUINDO AS DIRETRIZES DO IPHAN - PORTARIA Nº420/2010 , INCLUINDO LEVANTAMENTO ARQUITETONICO E APROVAÇÕES JUNTO AO IPHAN

153167 0037/2017 Colégio Pedro II

reverse auction | est. value R$205.366,40 | contr. value R$144.180,00

quant items 1 | concluded

subject: contratação de empresa especializada em serviços de engenharia para Elaboração de Projeto Básico, englobando projetos de diferentes disciplinas, especificações, orçamentos, cronogramas e demais documentos necessários à contratação de adequação e finalização de acabamentos do Teatro do Campus Niterói

obs: All services (architecture and engineering) in one item.
Justification: "conforme caracterizado na OT 01/2006 do IBRAOP, referendada pelo TCU por meio do Acórdão 632/2012." (Anexo 1)

protest:

Source: comprasnet

001 | 20060 | Elaboração / Análise Projeto - Engenharia

1 Elaboração de Projeto Básico, englobando projetos de diferentes disciplinas. Reforma do do Teatro do Campus Niterói, para subsidiar a futura licitação da obra (1007m2)

est. value R$205.366,40 | contr. value R$144.180,00

quant 1,00 | unit un | value unit

quant. crit. prof | quant. crit. op.

crit. prof.: Certidão relativo a :
a. Arquiteto ou Engenheiro civil comprovando experiência na execução de projetos de arquitetura de reforma ou construção de teatros ou edificações de uso cultural, compatível com o objeto da licitação, e
b. Arquiteto ou Cenógrafo comprovando experiência na execução de projetos cenotécnicos de teatros, compatível com o objeto da licitação.

crit. op.: Atestado relativo a
a. Execução de projetos de arquitetura para reforma ou construção de teatros ou edificações de uso cultural, compatível com o objeto da licitação.
b. Execução de projetos cenotécnicos para reforma ou adequação de teatros, compatível com o objeto da licitação.

obs: arquitetura e engenharia no mesmo item. Valor orçado de arquitetura: R$166.859,39 (81% do valor total)

153167 0042/2017 Colégio Pedro II

reverse auction | est. value R$42.757,13 | contr. value R$24.000,00

quant items 1 | concluded

subject: contratação de empresa especializada em serviços de engenharia para elaboração de projeto básico, englobando projetos de diferentes disciplinas, especificações, orçamentos, cronogramas e demais documentos necessários à contratação de Reforma de refeitório, cozinha e área de serviço do Campus Tijuca II do Colégio Pedro II

obs: All services (architecture and engineering) in one item.

protest:

Source: comprasnet

001 | 20060 | Elaboração / Análise Projeto - Engenharia

1 Elaboração de Projeto Básico, englobando projetos de diferentes disciplinas. Reforma do refeitório, cozinha e área de serviço do Campus Tijuca II, para subsidiar a futura licitação da obra de reforma (400m2)

est. value R$42.757,13 | contr. value R$24.000,00

quant 1,00 | unit un | value unit

quant. crit. prof | quant. crit. op.

crit. prof.	Certidão relativo a Arquiteto comprovando experiência na execução de projetos de arquitetura de reforma ou construção de edificações escolares, englobando áreas de refeitório e cozinha, compatível com o objeto da licitação
crit. op.	Atestado relativo a Execução de projetos de arquitetura e complementares (instalações hidrossanitárias, elétrica, gás e exaustão mecânica) para reforma ou construção de edificações escolares ou cozinhas industriais, compatível com o objeto da licitação.
obs	arquitetura e engenharia no mesmo item. Valor orçado de arquitetura: R$22.477,44 (52% do valor total)

154046 0004/2017	Universidade Federal de Ouro Preto					
	request for quotations	est. value	R$261.571,04	contr. value	R$158.124,13	
	quant items	1	concluded			
subject	Contratação de empresa especializada no ramo de Arquitetura e Engenharia para a elaboração de projetos de adequações das instalações prediais de varias edificacoes da universidade visando atender as normas vigentes de Acessibilidade Universal e de Prevenção e Combate a Incêndio e Pânico					
obs	Consta como agendada no sistema. No entanto, ha um contrato registrado. Nenhuma informacao sobre o processo. Pesquisa contrato = http://compras.dados.gov.br/contratos/v1/contratos.html?uasg=154046&modalidade=2					
protest	Nao disponivel no sistema. O valor total apresentou uma errata, nao disponivel no sistema, mas disponivel no site da universidade (http://csu.dof.ufop.br/sites/default/files/csu/files/errata_tp_002_2017.pdf?m=1524862169). Uma impugnacao referente ao valor irrisorio. Foi considerada improcedente. O site http://www.licitacao.ufop.br/ nao estava disponivel em 4.10.2018.					
Source	http://www.licitacao.ufop.br/					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	Contratação de empresa especializada no ramo de Arquitetura e Engenharia para a elaboração de projetos (executivos) de adequações das instalações prediais de varias edificacoes da universidade visando atender as normas vigentes de Acessibilidade Universal e de Prevenção e Combate a Incêndio e Pânico. Seis edificios em três municipios diferentes. Alguns edificios em area historica (consulta ao IPHAN). Total 50.919,10m2 (informacao no arquivo de resposta a impugnacao).					
	est. value	R$261.571,04	contr. value	R$158.124,13		
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			
	crit. prof.	atestado(s) deverá (ão) ser referente(s) às áreas de maior relevância, sendo no caso: Projeto de Acessibilidade Universal para edificações de uso público e Projeto de Prevenção e Combate a Incêndio e Pânico para edificações de uso público;				
	crit. op.					
	obs	Prazo: 180 dias. Arquitetura 100% do valor.				
154618 0015/2017	Instituto Federal Baiano - Campus Governador Mangabeira					
	reverse auction	est. value	R$48.897,86	contr. value	R$15.450,00	
	quant items	1	concluded			
subject	Contratação de empresa especializada na elaboração de Projeto de adaptação para acessibilidade de pessoas com mobilidade reduzida no Instituto Federal Baiano Campus Governador Mangabeira					
obs						
protest	Houve intençao de recurso alegando falta de transparência (documentos da ganhadora foram disponibilizados muito tarde). No entanto, essa intençao nao foi aceita. Me parece uma decisao arbitraria. Nao ha documentos de habilitacao da ganhadora no sistema comprasnet, tampouco no link informado na ata.					
Source	comprasnet					
001	78	Estudos e Projetos de Arquitetura				
1	Projeto de adaptação para acessibilidade de pessoas com mobilidade reduzida.					

	6.543,74m2						
	est. value	R$48.897,86	contr. value	R$15.450,00			
	quant	1,00	unit	un	value unit		
	quant. crit. prof		quant. crit. op.				
	crit. prof.	8.6.4. A equipe para execução do projeto será constituída de profissionais com habilitação para elaborá-los, conforme suas atribuições e comprovadas mediante CATs; quando da assinatura do contrato, deverá ser apresentado comprovação dos vínculos					
	crit. op.	comprovada experiência em elaboração de projeto similar ora licitado; A comprovação da aptidão para o desempenho das atividades pertinentes desta licitação far-se-á por meio da apresentação de certidão(ões).					
	obs	Prazo: 90 dias. 100% arq.					
155008 0038/2017	Hospital Universitário do Piauí						
	reverse auction	est. value	R$986.483,50	contr. value	R$411.231,50		
	quant items	34	concluded				
subject	Registro de Preços, consignado em Ata, pelo prazo de 12 (doze) meses, para a Contratação de empresa para a prestação de serviços de elaboração de projetos de arquitetura e engenharia para reforma e reforma com ampliação, visando o atendimento de demandas definidas pelo PDE (Plano Diretor Estratégico) e enquadramento das áreas do Hospital Universitário da Universidade Federal do Piauí.						
obs	Registro de preços. Info sobre habilitaçao em dois lugares diferentes do termo de referência. 34 itens, dois de arquitetura.						
protest							
Source	comprasnet						
003	20060	Elaboração / Análise Projeto - Engenharia					
1	Construção - Projeto de Arquitetura (hospital)						
	est. value	R$42,06	contr. value	R$3,00			
	quant	2.750,00	unit	m2	value unit	1	
	quant. crit. prof	1.375,00	quant. crit. op.	1.000,00			
	crit. prof.	Anotações de Responsabilidade Técnica para Elaboração de projetos compatíveis em características e complexidade àqueles relativos ao objeto da licitação Apresentar, no mínimo, 50% da área do (s) lote (s) a que pretende concorrer:12.2.1.1. 01 (um) Arquiteto ou Engenheiro com experiência comprovada em coordenação e compatibilização de projeto (Arquitetura e Engenharia); 12.2.1.2. 01 (um) Arquiteto com experiência comprovada na elaboração de projeto executivo;						
	crit. op.	Atestado (s) onde a licitante comprove ter executado serviços compatíveis e pertinentes em características e prazos com o objeto, em edificações hospitalares, no (s) qual (is) constem referências às parcelas de maior relevância técnica. 4.2.1. As parcelas de maior relevância técnica a serem consideradas para o presente termo de referência são as seguintes: (...) 4.2.1.2. Elaboração de projetos de demolição, reforma ou construção civil em área hospitalar com área mínima de 1000 m2. 12.1.1.1. Elaboração de projeto arquitetônico hospitalar com área mínima de 1000 m².						
	obs						
020	20060	Elaboração / Análise Projeto - Engenharia					
1	Reforma - Projeto de Arquitetura (hospital)						
	est. value	R$38,09	contr. value	R$8,31			
	quant	5.000,00	unit	m2	value unit	1	
	quant. crit. prof	2.500,00	quant. crit. op.	1.000,00			

crit. prof.	Anotações de Responsabilidade Técnica para Elaboração de projetos compatíveis em características e complexidade àqueles relativos ao objeto da licitação Apresentar, no mínimo, 50% da área do (s) lote (s) a que pretende concorrer:12.2.1.1. 01 (um) Arquiteto ou Engenheiro com experiência comprovada em coordenação e compatibilização de projeto (Arquitetura e Engenharia); 12.2.1.2. 01 (um) Arquiteto com experiência comprovada na elaboração de projeto executivo;
crit. op.	Atestado (s) onde a licitante comprove ter executado serviços compatíveis e pertinentes em características e prazos com o objeto, em edificações hospitalares, no (s) qual (is) constem referências às parcelas de maior relevância técnica. 4.2.1. As parcelas de maior relevância técnica a serem consideradas para o presente termo de referência são as seguintes: (...) 4.2.1.2. Elaboração de projetos de demolição, reforma ou construção civil em área hospitalar com área mínima de 1000 m2. 12.1.1.1. Elaboração de projeto arquitetônico hospitalar com área mínima de 1000 m².
obs	3 contratos ja assinados (56/2017, 74/2017 e 9/2018).

155124 0003/2017	Hospital Universitário Maria Aparecida Pedrossian				
	RDC	est. value	R$220.704,00	contr. value	R$187.598,40
	quant items 1	concluded			
subject	CONTRATAÇÃO DE EMPRESA ESPECIALIZADA NA ELABORAÇÃO DOS PROJETOS BÁSICOS E EXECUTIVOS DE ARQUITETURA HOSPITALAR E SEUS COMPLEMENTARES DE ENGENHARIA PARA PLANEJAMENTO DE REFORMA E AMPLIAÇÃO NOS SETORES DE CENTRO CIRÚRGICO (CC) E CENTRAL DE MATERIAIS ESTERELIZADOS				
obs					
protest					
Source	comprasnet				

001	20060	Elaboração / Análise Projeto - Engenharia

1 ELABORAÇÃO DOS PROJETOS BÁSICOS E EXECUTIVOS DE ARQUITETURA HOSPITALAR E SEUS COMPLEMENTARES DE ENGENHARIA PARA PLANEJAMENTO DE REFORMA E AMPLIAÇÃO NOS SETORES DE CENTRO CIRÚRGICO (CC) E CENTRAL DE MATERIAIS ESTERELIZADOS (CME)

área total de intervenção em 1.278,80 m²
área referente às estruturas já existentes do Centro Cirúrgico (CC) é de 944,03 m²
área referente às estruturas já existentes da Central de Materiais Esterilizados (CME) é de 222,77 m²
área referente à possibilidade de ampliação dos serviços é de 112,00 m²

est. value	R$220.704,00	contr. value	R$187.598,40		
quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.			

crit. prof.	documento que comprove a parcela relevante, de acordo com a tabela adiante: SERVIÇOS REQUERIDOS: ELABORAÇÃO DE PROJETOS BÁSICOS E EXECUTIVOS DE ARQUITETURA HOSPITALAR E SEUS COMPLEMENTARES DE ENGENHARIA PARA PLANEJAMENTO DE REFORMA E AMPLIAÇÃO NOS SETORES DE CENTRO CIRÚRGICO (CC) E CENTRAL DE MATERIAIS ESTERILIZADOS (CME)
crit. op.	
obs	Prazo: 120 dias

158275 0014/2017	Instituto Federal de Educação, Ciência e Tecnologia de Minas Gerais					
	reverse auction	est. value	R$5.593.760,00	contr. value	R$1.164.500,00	
	quant items 18	concluded				
subject	Contratação de pessoa jurídica especializada para prestar serviços de elaboração de projetos de Arquitetura e Engenharia para reformas e/ou construções na área de abrangência do IFMG - Campus Bambuí.					
obs	Registro de preços. Nenhum contrato firmado até o momento. 18 itens classificados como arquitetura, apenas dois realmente de arquitetura.					
protest						
Source	comprasnet					
003	78	Estudos e Projetos de Arquitetura				
1	Anteprojeto Serviço de elaboração de Estudos Preliminares.					
	est. value	R$9,48	contr. value	R$4,50		
	quant 10.000,00	unit m2	value unit 1			
	quant. crit. prof	quant. crit. op.				
	crit. prof.	A licitante deverá indicar um profissional de nível superior para cada especialidade do projeto, em cujo acervo conste Atestado de Responsabilidade Técnica por execução de serviços de características semelhantes ao do objeto do presente Termo de Referência				
	crit. op.	atestado de capacidade técnica em nome da licitante que comprove aptidão da licitante para desempenho de atividade pertinente e compatível em características, quantidades e prazos com o objeto da licitação.				
	obs					
004	78	Estudos e Projetos de Arquitetura				
1	Projeto arquitetônico e urbanístico.					
	est. value	R$23,05	contr. value	R$8,50		
	quant 10.000,00	unit m2	value unit 1			
	quant. crit. prof	quant. crit. op.				
	crit. prof.	A licitante deverá indicar um profissional de nível superior para cada especialidade do projeto, em cujo acervo conste Atestado de Responsabilidade Técnica por execução de serviços de características semelhantes ao do objeto do presente Termo de Referência.				
	crit. op.	atestado de capacidade técnica em nome da licitante que comprove aptidão da licitante para desempenho de atividade pertinente e compatível em características, quantidades e prazos com o objeto da licitação.				
	obs					
158377 0040/2017	Instituto Federal de Educação, Ciência e Tecnologia do Norte de Minas Gerais Campus Salinas					
	reverse auction	est. value	R$132.984,83	contr. value	R$65.600,00	
	quant items 6	concluded				
subject	aquisição de Serviços para Elaboração de Projetos Básico de Engenharia					
obs	Demands for "as build" drawings in the preliminary phase of the service (Edital p.27). Although services are bought by unity, the capacities damanded are in m2 (Edital p.34). Each item condenses all architecture and engineering services, it is not possible to know how much each service would cost. In the Edital, technical selection criteria is not specified, it is only in the attached document (termo de referência - p.34).					
protest						
Source	comprasnet					
001	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos				
1	Elaboração de projetos com vistas a reforma e adequação dos alojamentos do IFNMG					
	est. value	R$59.848,39	contr. value	R$19.500,00		
	quant 1,00	unit unid	value unit			

	quant. crit. prof	522,60	quant. crit. op.			
	crit. prof.	atestado de capacidade técnica				
	crit. op.					
	obs	Quantidade do serviço adaptada para ser coerente com o critério de 50% estabelecido no edital (13.2.2019).				
002	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos				
1	Elaboração de projetos com vistas a reforma e adequação do refeitório do IFNMG					
	est. value	R$33.850,84	contr. value	R$17.500,00		
	quant	1,00	unit	unid	value unit	
	quant. crit. prof	522,60	quant. crit. op.			
	crit. prof.	atestado de capacidade técnica				
	crit. op.					
	obs	Quantidade do serviço adaptada para ser coerente com o critério de 50% estabelecido no edital (13.2.2019).				
003	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos				
1	Elaboração de projetos com vistas a reforma, adequação e ampliação do Almoxarifado do IFNMG					
	est. value	R$8.845,00	contr. value	R$7.000,00		
	quant	1,00	unit	unid	value unit	
	quant. crit. prof	522,60	quant. crit. op.			
	crit. prof.	atestado de capacidade técnica				
	crit. op.					
	obs	Quantidade do serviço adaptada para ser coerente com o critério de 50% estabelecido no edital (13.2.2019).				
004	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos				
1	Elaboração de projetos com vistas a reforma e adequação da oficina mecânica e garagem dos veículos oficiais do IFNMG					
	est. value	R$18.250,18	contr. value	R$11.000,00		
	quant	1,00	unit	unid	value unit	
	quant. crit. prof	522,60	quant. crit. op.			
	crit. prof.	atestado de capacidade técnica				
	crit. op.					
	obs	Quantidade do serviço adaptada para ser coerente com o critério de 50% estabelecido no edital (13.2.2019).				
005	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos				
1	Elaboração de projetos com vistas a reforma, adequação e ampliação do Abatedouro do IFNMG					
	est. value	R$3.428,03	contr. value	R$3.400,00		
	quant	1,00	unit	unid	value unit	
	quant. crit. prof	522,60	quant. crit. op.			
	crit. prof.	atestado de capacidade técnica				
	crit. op.					
	obs	Quantidade do serviço adaptada para ser coerente com o critério de 50% estabelecido no edital (13.2.2019).				
006	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos				
1	Elaboração de projetos com vistas a reforma, adequação e ampliação da Guarita/Portaria do IFNMG					
	est. value	R$8.762,39	contr. value	R$7.200,00		

	quant	1,00	unit	unid	value unit		
	quant. crit. prof	522,60	quant. crit. op.				
	crit. prof.	atestado de capacidade técnica					
	crit. op.						
	obs	Quantidade do serviço adaptada para ser coerente com o critério de 50% estabelecido no edital (13.2.2019).					
158720 0004/2017	Universidade Federal do Sul da Bahia						
	reverse auction	est. value	R$11.197.396,19	contr. value	R$9.048.522,00		
	quant items	1	concluded				
	subject	CONTRATAÇÃO DE EMPRESA ESPECIALIZADA NA PRESTAÇÃO DE SERVIÇOS TÉCNICOS DE ELABORAÇÃO DE PROJETOS BÁSICO E EXECUTIVO DE ARQUITETURA E ENGENHARIA DE MÉDIA COMPLEXIDADE, NECESSÁRIOS ÀS CONSTRUÇÕES, REFORMAS E AMPLIAÇÕES DE DIVERSAS UNIDADES DA UFSB					
	obs	RDC com registro de preços. Nao consta nenhum contrato dessa licitaçao no nome da empresa vencedora. A lei do RDC autoriza contrataçao para serviços de engenharia, e projeto nao é serviço de engenharia. O orgao nao tem pagina de transparência e nao tem nenhuma informaçao sobre licitacoes e contratos na pagina internet do orgao. http://www.ufsb.edu.br/acesso-informacao/licitacoes-contratos. Trata-se de um RDC feito na plataforma de pregao.					
	protest	Um recurso, sobre aspectos formais dos documentos apresentados pela vencedora.					
	Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia					
1	elaboração de projetos básico e executivo de arquitetura e engenharia de média complexidade, pelo regime diferenciado de contratação, necessários às construções, reformas e ampliações de diversas unidades da UFSB.						
	est. value	R$11.197.396,19	contr. value	R$9.048.522,00			
	quant	1,00	unit	1	value unit		
	quant. crit. prof	1.000,00	quant. crit. op.				
	crit. prof.	Atestado de Capacidade Técnica, em projetos similares ao objeto desta licitação, em porte e grau de complexidade tecnológica e operacional equivalente ou superior: Anteprojeto e Projeto Executivo de Arquitetura: 1000m2					
	crit. op.	aptidão para desempenho de atividade pertinente e compatível em características, quantidades e prazos com o objeto da licitação					
	obs	No edital, nao é exigido o profissional arquiteto paisagista. Valor arq: R$584.000					
160036 0025/2017	Comando Militar do Nordeste 6ª R egião Militar						
	reverse auction	est. value	R$68.123,02	contr. value	R$46.199,99		
	quant items	1	concluded				
	subject	contratação de Projetos de engenharia e arquitetura para o HGEs					
	obs	Serviços de engenharia e arquitetura no mesmo item. O edital faz referência ao projeto basico 21/2017, mas o arquivo disponivel é do projeto basico 20/2017.					
	protest						
	Source	comprasnet					
001	78	Estudos e Projetos de Arquitetura					
1	Projetos de Arquitetura e Engenharia do Hge (Obras de Adequação do Rancho, Adequação da UTI e Construção de uma Passarela no HGeS). Arquitetura: 160m2. Somente projetos executivos compatibilizados, projetos basicos ja fornecidos.						
	est. value	R$68.123,02	contr. value	R$46.199,99			
	quant	1,00	unit	un	value unit		
	quant. crit. prof		quant. crit. op.				

crit. prof.	Certidão em nome do profissional responsável técnico, de nível superior, vinculado a empresa licitante em data anterior à entrega da proposta, que comprovem a capacitação técnico-profissional e desempenho pertinente compatível em características semelhantes aos serviços, áreas e/ou volumes descritos no item 4.1.b. (ver obs.). Arquitetura nao é relevante.
crit. op.	
obs	item 4.1.b: "Serviços mais relevantes: projeto estrutural em concreto armado (465,00m²), projeto instalações elétricas de baixa tensão (925,00m²) e projeto contratado instal. oxigênio/gases/vacou e ar comprimido (160,00m²)." Custo de arquitetura: R$1.459,20 (2,52% do total - arquivo PBE-21/2017) = R$9,12/m2.

160066 0013/2017 — Comissão Regional de Obras da 11ª Região Militar

reverse auction		est. value	R$421.573,31	contr. value	R$268.420,68
quant items	21	concluded			

subject	contratação de serviços de elaboração de projetos de infraestrutura e pavimentação, objetivando a complementação da obra de construção da Escola de Comunicação
obs	21 items, two classified as architectural services.
protest	
Source	comprasnet

013 — 51 — Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos

1 Projeto Executivo de paisagismo. Area = 36.143,75-14.893,25 (doc. caderno de especificaçoes técnicas)

est. value	R$30.022,19	contr. value	R$15.000,00		
quant	1,00	unit	un	value unit	1
quant. crit. prof		quant. crit. op.	6.375,00		

crit. prof.	atestado de responsabilidade técnica relativo a elaboração de projetos básicos e executivos referente ao projeto paisagístico
crit. op.	atestados de capacidade técnica relativo à execução de projetos, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação (projetos de infraestrutura)
obs	quant capacities damanded in m2

014 — 51 — Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos

3 Projeto "As Built" de paisagismo

est. value	R$4.254,59	contr. value	R$3.579,80		
quant	1,00	unit	un	value unit	1
quant. crit. prof		quant. crit. op.	6.375,00		

crit. prof.	atestado de responsabilidade técnica relativo a elaboração de projetos básicos e executivos referente ao projeto paisagístico
crit. op.	atestados de capacidade técnica relativo à execução de projetos, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação (projetos de infraestrutura)
obs	quant capacities damanded in m2

160078 0001/2017	Colégio Militar de Campo Grande					
	request for quotations	est. value	R$38.095,95	contr. value	R$22.857,14	
	quant items	1	concluded			
subject	Elaboração dos projetos executivos para adequação da arquitetura, da rede elétrica, instalações prediais de água potável, gás e esgotos sanitários do Rancho (Setor de Aprovisionamento) do Colégio Militar de Campo Grande					
obs	Arq + eng no mesmo item. Apenas duas concorrentes, uma foi inabilitada por nao apresentar os atestados técnicos solicitados.					
protest						
Source	comprasnet					
001	264	Estudos e Projetos - Instalações Prediais				
1	projetos executivos para adequação da arquitetura, da rede elétrica, instalações prediais de água potável, gás e esgotos sanitários do Rancho do Colégio Militar de Campo Grande. Sem informaçoes da area.					
est. value	R$38.095,95	contr. value	R$22.857,14			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.	1.277,81			
crit. prof.	Certidão em nome do(s) responsável(is) técnico(s) e/ou membros da equipe técnica que participarão do serviço relativo à execução dos serviços que compõem as parcelas de maior relevância técnica e valor significativo da contratação.					
crit. op.	atestados em nome do licitante, relativo à elaboração de projeto executivo, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo da contratação: 7.3.3.2.1. Projeto de arquitetura de reforma de edificação existente, em área de no mínimo 1.277,81m2					
obs	Prazo: 90 dias. Valor arq: R$12.905,88 (33,9% do valor estimado).					
170010 0006/2017	Secretaria da Receita Federal do Brasil					
	reverse auction	est. value	R$143.654,32	contr. value	R$131.000,00	
	quant items	1	concluded			
subject	contratação de assessoria à fiscalização da contratação de serviços técnicos especializados de Arquitetura e Engenharia visando elaboração de Anteprojetos, Projetos Básicos Completos					
obs	Classificado como serviço comum, mas "É necessário o assessoramento técnico especializado na fiscalização da elaboração do projeto básico completo na tecnologia BIM" (p.27 do edital).					
protest	arq +eng no mesmo item.					
Source	comprasnet					
001	1341	Supervisão / Gerenciamento / Fiscalização - Projeto Construção / Obras Civis				
5	assessoria à fiscalização da contratação de serviços técnicos especializados de Arquitetura e Engenharia visando elaboração de Anteprojetos, Projetos Básicos Completos. Para reforma de edificio da Receita Federal. Area 8655,97m2.					
est. value	R$143.654,32	contr. value	R$131.000,00			
quant	1,00	unit	un	value unit		
quant. crit. prof	4.300,00	quant. crit. op.				
crit. prof.	Arquiteto: comprovação de ter elaborado, fiscalizado ou coordenado projeto arquitetônico de edifício público, comercial ou de escritórios, com área maior ou igual 4.300m²					
crit. op.						
obs	Prazo: 155 dias. Arq: R$41.365,15 (28,8% do valor total estimado)					

170018 0003/2017	Superintendências Regionais da Receita Federal - 1a. Região Fiscal					
	reverse auction	est. value	R$126.836,28	contr. value	R$89.000,00	
	quant items 1	concluded				
subject	seleção de pessoa jurídica especializada para prestação de serviços técnicos de arquitetura e engenharia, visando a elaboração de Projetos básicos de arquitetura e complementares de Engenharia, necessários à reforma e modernização do Depósito de Mercadorias Apreendidas					
obs	Arq + Eng no mesmo item.					
protest						
Source	comprasnet					
001	1627	Manutenção / Reforma Predial				
1	Projeto Básico de reforma, de adaptações de acessibilidade e de modernização de equipamentos e sistemas. Galpao = 2.121m2, prédio administrativo = 274m2.					
	est. value	R$126.836,28	contr. value	R$89.000,00		
	quant 1,00	unit un	value unit			
	quant. crit. prof 2.000,00	quant. crit. op.				
	crit. prof.	Certidao comprovando experiencia na elaboraçao de projeto de arquitetura.				
	crit. op.	Certidao comprovando elaboraçao de projetos basicos de edificacoes compativeis: cercamento de terreno com construão de guarita, escritorios.				
	obs	Custo arquitetura: R$21.360,24 (16,8% do total orçado) Area de serviços = 1401,83 (p.89 do termo de referência); quant crit = 2000,00 (p.25 do edital).				
170088 0001/2017	Superintendência Regional da Receita Federal - 6ª Regiao/MG					
	request for quotations	est. value	R$677.199,03	contr. value	R$377.798,24	
	quant items 1	concluded				
subject	Contratação de empresa especializada na elaboração de Projeto Básico Completo de Acessibilidade, de Identidade Visual e de Proteção e Combate a Incêndio, além da elaboração dos Projetos Legais e respectivas aprovações. Total 19 imoveis em diversos municipios de MG, 29.330m2.					
obs	Técnica e preço. Recebimento das propostas: 25/10/2017, contrato publicado em 16/01/2018. Todos os serviços em um mesmo item, nao é possivel distinguir o valor dos itens de arquitetura somente. Valor maior que R$650 mil - deveria ser concorrência. Considerou como serviço de engenharia. Anexo I p.34: "Modalidade e tipo da Licitação: Conforme previsto no art. 23, inciso I, alínea b, da Lei 8.666/93, e com o objetivo de ampliar a participação de empresas desse ramo de negócio, a Tomada de Preço é a modalidade de licitação que melhor se adequou ao caso. Adotou-se o tipo técnica e preço por ser o mais recomendado ao objeto que possui natureza eminentemente intelectual. "					
protest	3 impugnacoes, nao diretamente ligadas aos critérios técnicos. A terceira alega que um critério eligibility deveria ser aceito para awarding. A administraçao desconsiderou, pois essa exigência é estabelecida por uma instruçao normativa do MPOG. 3 recursos, todos relativos a critérios técnicos. Esses recursos tratam da avaliaçao da habilitaçao em funcao dos documentos apresentados. Um desses recursos foi aceito, mas sem representar empecilhos à continuaçao da licitaçao.					
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	Projeto Básico Completo de Acessibilidade, de Identidade Visual e de Proteção e Combate a Incêndio, além da elaboração dos Projetos Legais e respectivas aprovações					
	est. value	R$677.199,03	contr. value	R$377.798,24		
	quant 1,00	unit un	value unit			
	quant. crit. prof	quant. crit. op. 500,00				
	crit. prof.	Eligibility: Elaboração de Projeto Básico ou Executivo de Arquitetura, de edificação compatível (500m2)				

crit. op.	Awarding: "Elaboração de Projeto Básico ou Executivo de Arquitetura, de reforma de edificação compatível, cuja área construída mínima seja de 500m²; com expressa indicação no atestado, de que o projeto contemplou em seu bojo, dentre outras coisas, adequações da edificação às normas de acessibilidade; Os atestados que não constarem expressamente que o projeto de reforma contemplou "adequações de acessibilidade", mas que atenderem às condições deste edital, em especial as condições de "área mínima" e "edificação compatível" serão aceitos, e submetidos à pontuação nos termos do anexo V. Somente a expressa declaração no atestado será considerada como comprovação de que o projeto de reforma contemplou adequações de acessibilidade da edificação. Não serão efetuadas análises de desenhos para fins de apuração do que não estiver expressamente declarado no atestado. A simples marcação, em campo próprio da ART ou RRT, de que o projeto atendeu as normas de acessibilidade não será considerada como comprovação do estipulado." "Os atestados a que se refere este subitem deverão considerar a elaboração de projeto somente para reforma". Uma nota é calculada baseada na quantidade de serviços prestados e na experiência em projetos de adequaçao (anexo V do edital). Também "será atribuída nota à licitante que comprovar que, pelo menos, 01 integrante de sua equipe técnica, indicada no Anexo VI do edital, tenha concluído curso de pós-graduação (doutorado, mestrado ou especialização) ou capacitação, na área de engenharia e arquitetura e cujo conteúdo programático formalmente contemple o tema acessibilidade de edificações". Nota final = 0,6 x nota técnica + 0,4 x nota de preço.
obs	"Considera-se edificação compatível (prédio de escritórios), segundo a NBR-9077, os locais para a condução de negócios e prestação de serviços pessoais, tais como: consultórios de médicos e dentistas, escritórios de profissionais liberais, escritórios comerciais em geral, bancos, instituições financeiras em geral e repartições públicas." 500m2 de critério incluido como operacional pois profissional contempla evaluation criterion.

170131 0022/2017 Superintendência de Administração do Ministério da Fazenda/SP

reverse auction	est. value	R$19.396,60	contr. value	R$19.000,00	
quant items	1	concluded			

subject	Contratação de empresa de arquitetura e engenharia para prestação de serviços para elaboração de projeto completo (básico e executivo) de reformas e adaptações no edifício que abriga a Procuradoria Seccional da Fazenda Nacional
obs	
protest	
Source	comprasnet

001 **78** Estudos e Projetos de Arquitetura

1 projeto completo (básico) de reformas e adaptações para permitir o livre acesso de pessoas portadoras de necessidades especiais no edifício que abriga a Procuradoria Seccional da Fazenda Nacional em São Carlos (900,60m2)

est. value		R$19.396,60	contr. value		R$19.000,00
quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.	450,00		

crit. prof.

crit. op.	atestados em nome do licitante, relativo à execução de obra de engenharia, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação: 8.7.2.1. Elaboração de projeto de acessibilidade para acesso de pessoas portadoras de necessidades especiais em edifício com área de 450,00 m² ou superior.
obs	Custo arquitetura = R$10.143,90 (52,3% do valor orçado) (p.48 do edital)

170134 0006/2017	Delegacia da Receita Federal do Brasil em Araçatuba/SP					
	reverse auction	est. value	R$53.602,64	contr. value	R$18.000,00	
	quant items 1	concluded				
subject	contratação de serviços comuns de engenharia.					
obs						
protest	Dois recursos. O primeiro alega inexequibilidade do preço. O pregoeiro nao aceitou esse recurso, pretextando que a empresa confirmou estar ciente de suas obrigaçoes. O segundo argumenta que "não foi apresentada CAT de projeto de adequação de acessibilidade e sim de um projeto arquitetônico de uma nova edificação, não sendo obra de adequação." O pregoeiro julga que "apesar dos dois itens conterem a palavra "adequação", é evidente que não é esse o termo que define o cerne da exigência." O pregoeiro também consignou que consta projeto de acessibilidade no atestado apresentado. No meu entender, situaçao absurda, pois o edital pedia explicitamente adequaçao. Um projeto de novo edificio, como é o caso do atestado, nao é um projeto de adequaçao. No atestado consta simplesmente "paisagismo e acessibilidade".					
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	Elaboração de Projeto Básico de Arquitetura e Complementares de Engenharia para Adequação de Acessibilidade do Edifício Sede da Delegacia da Receita Federal do Brasil em Araçatuba/SP e suas Unidades Jurisdicionadas, localizadas nos municípios de Andradina, Jales, Lins, Penápolis e Pereira Barreto. Area construida: 6401,97m2					
	est. value	R$53.602,64	contr. value	R$18.000,00		
	quant 1,00	unit un	value unit			
	quant. crit. prof		quant. crit. op.	300,00		
	crit. prof.	Certidao comprovando execuçao de Projeto de Adequação de Acessibilidade de acordo com a ABNT NBR 9050/2015				
	crit. op.	Atestados comprovando execuçao de Projeto Básico/Executivo de Arquitetura para adequação de acessibilidade em prédios com no mínimo 300m² de área construída				
	obs					
170217 0007/2017	Delegacia da Receita Federal do Brasil em Belém - DRF/BEL					
	reverse auction	est. value	R$73.572,40	contr. value	R$28.700,00	
	quant items 1	concluded				
subject	Contrataçao de serviços comuns de engenharia. Reforma da agência de Capanema					
obs	Renovation of building. One item for architecture and engineering.					
protest	Uma impugnaçao referente a necessidade de se registrar os atestados da empresa no CREA. A impugnaçao foi aceita e o edital foi republicado sem essa necessidade. Nao houve recursos.					
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	projeto basico arquitetônico e projetos complementares. Reforma de imovel de 372m2.					
	est. value	R$73.572,40	contr. value	R$28.700,00		
	quant 1,00	unit un	value unit			
	quant. crit. prof		quant. crit. op.			
	crit. prof.	Certidao em nome dos responsaveis técnicos relativos a execuçao de projeto arquitetônico para prédios publicos ou escritorios.				
	crit. op.	Atestado compativel em caracteristicas com o objeto da licitaçao envolvendo projeto arquitetônico para prédios publicos ou escritorios.				
	obs	arquitetura e engenharia no mesmo item. projeto arquitetônico orçado em R$8759,73 (13% do total).				

170217 0008/2017	Delegacia da Receita Federal do Brasil em Belém - DRF/BEL					
	reverse auction	est. value	R$51.081,25	contr. value	R$45.000,00	
	quant items	1	concluded			
subject	Contrataçao de serviços comuns de engenharia. Reforma da agência de Sao Miguel do Guamá					
obs	Renovation of building. One item for architecture and engineering.					
protest	Uma impugnaçao referente a necessidade de se registrar os atestados da empresa no CREA. A impugnaçao foi aceita e o edital foi republicado sem essa necessidade. Nao houve recursos.					
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	projeto basico arquitetônico e projetos complementares. Reforma de imovel de 250m2.					
est. value	R$51.081,25	contr. value	R$45.000,00			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.				
crit. prof.	Certidao em nome dos responsaveis técnicos relativos a execuçao de projeto arquitetônico para prédios publicos ou escritorios.					
crit. op.	Atestado compativel em caracteristicas com o objeto da licitaçao envolvendo projeto arquitetônico para prédios publicos ou escritorios.					
obs	arquitetura e engenharia no mesmo item. projeto arquitetônico orçado em R$7.631,25 (15% do total).					
170217 0009/2017	Delegacia da Receita Federal do Brasil em Belém - DRF/BEL					
	reverse auction	est. value	R$66.522,81	contr. value	R$27.250,00	
	quant items	1	concluded			
subject	Contrataçao de serviços comuns de engenharia. Reforma da agência de Castanhal					
obs	Renovation of building. One item for architecture and engineering.					
protest	Uma impugnaçao referente a necessidade de se registrar os atestados da empresa no CREA. A impugnaçao foi aceita e o edital foi republicado sem essa necessidade. Nao houve recursos.					
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	projeto basico arquitetônico e projetos complementares. Reforma de imovel de 614m2.					
est. value	R$66.522,81	contr. value	R$27.250,00			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.				
crit. prof.	Certidao em nome dos responsaveis técnicos relativos a execuçao de projeto arquitetônico para prédios publicos ou escritorios.					
crit. op.	Atestado compativel em caracteristicas com o objeto da licitaçao envolvendo projeto arquitetônico para prédios publicos ou escritorios.					
obs	arquitetura e engenharia no mesmo item. projeto arquitetônico orçado em R$8759,73 (13% do total).					
170217 0011/2017	Delegacia da Receita Federal do Brasil em Belém - DRF/BEL					
	reverse auction	est. value	R$48.769,17	contr. value	R$25.200,00	
	quant items	1	concluded			
subject	Contratação de serviços de elaboração do Projeto Básico Arquitetônico e dos Projetos Básicos Complementares para a Agência da Receita Federal do Brasil em Abaetetuba					
obs						
protest						
Source	comprasnet					

001	20060	Elaboração / Análise Projeto - Engenharia

1 Projeto Básico Arquitetônico e dos Projetos Básicos Complementares para a Agência da Receita Federal do Brasil em Abaetetuba. Inclui projetos de engenharia (eletrica, SPDA etc). Reforma de edificio. Area total 395m2.

est. value	R$48.769,17	contr. value	R$25.200,00
quant	1,00 unit	un	value unit
quant. crit. prof		quant. crit. op.	

crit. prof.	Certidao em nome dos responsaveis técnicos relativos a execuçao de projeto arquitetônico para prédios publicos ou escritorios.
crit. op.	Atestado comprovando a elaboraçao de projeto arquitetônico para prédios publicos ou escritorios.
obs	arquitetura e engenharia no mesmo item. projeto arquitetônico orçado em R$6.069,83 (12,5% do total).

170388 0001/2017 Delegacia da Receita Federal do Brasil em Dourados/MS

reverse auction		est. value	R$238.583,01	contr. value	R$58.065,40
quant items	1	concluded			

subject	contratação de pessoa jurídica especializada na elaboração de PROJETO BÁSICO COMPLETO necessário à construção de edificação que abrigará o Depósito de Veículos Apreendidos
obs	Only one item in which architecture and engineering services are mixed together.
protest	
Source	comprasnet

001	22225	Serviço Engenharia

1 Serviço de elaboração de PROJETO BÁSICO COMPLETO. Sem indicaçao da area.

est. value	R$238.583,01			contr. value	R$58.065,40
quant	1,00 unit	un	value unit		
quant. crit. prof		quant. crit. op.			

crit. prof.	Atestado que comprove ter o profissional executado serviços relativos a elaboração de projeto de arquitetura de edificação compatível
crit. op.	Certidão de Acervo Técnico (CAT) em nome do licitante onde fique comprovado que o licitante elaborou ou desenvolveu Projetos Básicos para a construção de edificações compatíveis
obs	arquitetura e engenharia no mesmo item. nao é possivel saber o valor so de arquitetura. Item 8.7.5: Considera-se edificação compatível (prédio de escritórios) os locais para a condução de negócios e prestação de serviços pessoais, tais como: cercamento de terreno com construção de guarita, consultórios de médicos e dentistas, escritórios de profissionais liberais, escritórios comerciais em geral, bancos, instituições financeiras em geral e repartições públicas.

170516 0005/2017 Delegacia da Receita Federal em Anapolis

reverse auction		est. value	R$52.324,28	contr. value	R$39.000,00
quant items	1	concluded			

subject	contratação de pessoa jurídica especializada na prestação de serviços técnicos de arquitetura e engenharia, visando a elaboração do Projeto Básico, incluindo o Projeto Legal e complementares de Engenharia da Agência da Receita Federal do Brasil na cidade de Formosa
obs	1 item com serviços de engenharia e arquitetura misturados.
protest	
Source	comprasnet

001	78	Estudos e Projetos de Arquitetura

1 Projeto Básico, incluindo o Projeto Legal e complementares de Engenharia. Reforma e ampliaçao sem informaçoes da area.

est. value	R$52.324,28			contr. value	R$39.000,00

quant 1,00 unit un value unit

quant. crit. prof quant. crit. op.

crit. prof. Certidão em nome de profissional(is) onde fique comprovada a responsabilidade técnica na execução de serviços relativos à execução de Projetos Básicos e/ou Executivos relativos a: a. Coordenação de projeto completo; b. Projeto de Arquitetura;

crit. op. Certidão onde fique comprovado que o licitante elaborou ou desenvolveu Projetos Básicos e/ou Executivos para a construção de prédios de escritórios, comerciais ou públicos, conforme definido neste Edital, contemplando: a. Coordenação de projeto completo; e b. Projeto de Arquitetura;

obs

170516 0008/2017 Delegacia da Receita Federal em Anapolis

reverse auction est. value R$112.434,36 contr. value R$60.000,00

quant items 2 concluded

subject contratação de serviços comuns de arquitetura e engenharia. Reforma de duas agências

obs

protest

Source comprasnet

001 78 Estudos e Projetos de Arquitetura

1 Projetos básicos completos para a agência de Ceres (219,41m2)

est. value R$58.348,12 contr. value R$30.000,00

quant 1,00 unit un value unit

quant. crit. prof quant. crit. op.

crit. prof. Certidão em nome do(s) responsável(is) técnico(s) e/ou membros da equipe relativo à execução dos serviços que compõem as parcelas de maior relevância técnica e valor significativo da contratação, a saber: Projeto de Arquitetura;

crit. op. atestados onde fique comprovado que o licitante elaborou ou desenvolveu Projetos Básicos e/ou Executivos para a construção de prédios de escritórios, comerciais ou públicos, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação (projeto de arquitetura).

obs arquitetura e engenharia no mesmo item. nao ha indicaçao do valor do projeto arquitetônico.

002 78 Estudos e Projetos de Arquitetura

1 Projetos básicos completos para a agência de Luziânia (201,63m2)

est. value R$54.086,24 contr. value R$30.000,00

quant 1,00 unit un value unit

quant. crit. prof quant. crit. op.

crit. prof. Certidão em nome do(s) responsável(is) técnico(s) e/ou membros da equipe relativo à execução dos serviços que compõem as parcelas de maior relevância técnica e valor significativo da contratação, a saber: Projeto de Arquitetura;

crit. op. atestados onde fique comprovado que o licitante elaborou ou desenvolveu Projetos Básicos e/ou Executivos para a construção de prédios de escritórios, comerciais ou públicos, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação (projeto de arquitetura).

obs arquitetura e engenharia no mesmo item. nao ha indicaçao do valor do projeto arquitetônico.

179085 0098/2017	Banco do Nordeste do Brasil S/A					
	reverse auction	est. value	R$2.982.746,52	contr. value		
	quant items	1	cancelled (no suitable bids)			
subject	Contratação de serviços técnicos terceirizados, contemplando gerenciamento, planejamento e execução contínua de atividades de engenharia/arquitetura e suporte administrativo.					
obs	Item cancelado na aceitação. Motivo: Considerando a desclassificação ou a inabilitação de todas as propostas. Todos os lances foram mais altos que o valor orçado, exceto um que foi desclassificado por nao apresentar documentos. O valor estimado nao havia sido divulgado: "Não divulgado, com respaldo no Acórdão do TCU nº 2.080/2012 – Plenário, publicado no D.O.U., de 14/08/2012."					
protest	Um recurso solicitando revisao de desclassificaçao. A empresa nao cotou corretamente o valor do salario dos engenheiros. Recurso nao foi aceito. Essa empresa apresentou proposta de acordo com o preço orçado, apos negociaçao.					
Source	comprasnet					
001	22225	Serviço Engenharia				
2	Serviços técnicos terceirizados, contemplando gerenciamento, planejamento e execução contínua de atividades de engenharia/arquitetura e suporte administrativo. equipe dimensionada para funcionar com até 31 profissionais, composta por, no máximo: 01 (um) coordenador técnico (deve ser um arquiteto), 01 (um) coordenador administrativo, 21 (vinte e um) técnicos de nível médio, 03 (três) supervisores técnicos e 02 (dois) supervisores administrativos. Contrato de doze meses.					
	est. value	R$2.982.746,52	contr. value			
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			
	crit. prof.					
	crit. op.	prestação de serviço de consultoria na área de engenharia e/ou assessoria técnica na área de engenharia e/ou execução de manutenção predial, com equipe residente formada por: 8.7.2.1.1. Engenheiro civil ou engenheiro mecânico ou engenheiro eletricista ou arquiteto; poderão ser somados os quantitativos de 2 (dois) ou mais atestado(s) para se obter, pelo menos, 20 (vinte) Unidades de Serviço (US): 8.7.3. cópia(s) de contrato(s), atestado(s), declaração(ões) ou outros documentos idôneos que comprove(m) que o licitante possui experiência mínima de 3 (três) anos, ininterruptos ou não, na prestação de serviços terceirizados, compatíveis com o objeto ora licitado;					
	obs					
179085 0112/2017	Banco do Nordeste do Brasil S/A					
	reverse auction	est. value	R$2.982.746,52	contr. value	R$2.401.926,48	
	quant items	1	concluded			
subject	Contratação de serviços técnicos terceirizados, contemplando gerenciamento, planejamento e execução contínua de atividades de engenharia/arquitetura e suporte administrativo					
obs						
protest						
Source	comprasnet					
001	22225	Serviço Engenharia				
2	Contratação de serviços técnicos terceirizados visando, contemplando gerenciamento, planejamento e execução contínua de atividades de engenharia/arquitetura e suporte administrativo. 31 postos de trabalho, sendo quatro arquitetos ou engenheiros, durante doze meses.					
	est. value	R$2.982.746,52	contr. value	R$2.401.926,48		
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			

	crit. prof.	
	crit. op.	atestado(s) de capacidade técnica, expedido(s) por pessoa(s) jurídica(s) de direito público ou privado, que comprove(m) a aptidão para desempenho de atividade compatível com o objeto do Edital; 8.7.2.1. Entende-se por atividade compatível: prestação de serviço de consultoria na área de engenharia e/ou assessoria técnica na área de engenharia e/ou execução de manutenção predial, com equipe residente formada por: 8.7.2.1.1. Engenheiro civil ou engenheiro mecânico ou engenheiro eletricista ou arquiteto;
	obs	Custo arquitetos e engenheiros = 33,2% do total.

200035 0012/2017	Procuradoria da República em Minas Gerais					
	reverse auction	est. value	R$49.984,00	contr. value	R$17.500,00	
	quant items 1	concluded				
subject	Contratação de Projeto executivo de arquitetura e complementares para adequação de acessibilidade a pessoas com deficiência do edifício-sede da Procuradoria da República em Minas Gerais					
obs						
protest						
Source	comprasnet					
001	78	Estudos e Projetos de Arquitetura				
1	Projeto executivo de arquitetura e complementares para adequação de acessibilidade a pessoas com deficiência do edifício-sede da Procuradoria da República em Minas Gerais. 3.200m2					
	est. value	R$49.984,00	contr. value	R$17.500,00		
	quant 1,00	unit un	value unit			
	quant. crit. prof		quant. crit. op.			
	crit. prof.	8.9.3. Certidão de profissional(ais) de nível superior, ou outro devidamente reconhecido por entidade competente, que represente(m) a empresa licitante. Para as habilitações técnicas constantes nos itens 8.9.2 e 8.9.3 não serão aceitos atestados referentes a edificações que não tenham similaridade com a tipologia do objeto desta licitação.				
	crit. op.	8.9.2. Atestado(s) que comprove que a empresa tenha elaborado projeto de edificação. Para as habilitações técnicas constantes nos itens 8.9.2 e 8.9.3 não serão aceitos atestados referentes a edificações que não tenham similaridade com a tipologia do objeto desta licitação.				
	obs	Prazo: 100 dias. 100% arquitetura.				

200043 0017/2017	Procuradoria da República no Estado do Rio de Janeiro					
	reverse auction	est. value	R$24.695,52	contr. value	R$12.141,29	
	quant items 1	concluded				
subject	Contratação de Empresa Habilitada para a Elaboração de Projeto Executivo de Arquitetura e Complementares de Engenharia para Reforma e Adequação de Acessibilidade a Pessoas com Deficiência, do Edifício-Sede da Procuradoria da República no Rio de Janeiro					
obs	Arq + complementares eng no mesmo item.					
protest						
Source	comprasnet					
001	22225	Serviço Engenharia				
1	laboração de Projeto Executivo de Arquitetura e Complementares para Reforma e Adequação de Acessibilidade a Pessoas com Deficiência, do Edifício-Sede da Procuradoria da República no Rio de Janeiro. 2.600m2					

est. value	R$24.695,52	contr. value	R$12.141,29	
quant	1,00 unit	un	value unit	
quant. crit. prof	1.800,00	quant. crit. op.		

crit. prof.	c.1) Será considerada tecnicamente habilitada a empresa que apresentar no mínimo 1 (um) atestado e certidão de acervo técnico de Projeto executivo de arquitetura e engenharia de edificação de, no mínimo, 1.800m² (um mil e oitocentos metros quadrados) de área de construção, em uma única obra, cujas atividades tenham atendido as regras de acessibilidade
crit. op.	b) Comprovação de aptidão operacional para o desempenho de atividade pertinente e compatível com o objeto da presente Licitação, por meio de atestado(s) expedido(s) em nome da empresa licitante.
obs	Prazo: 105 dias. Valor arq: R$11.853,85 (48% do valor total estimado). Crit = 1800m2 (p.20 do edital); area =200m2 (anexo I-C).

200108 0008/2017	Procuradoria Regional do Trabalho - 18ª Região				
	reverse auction	est. value	R$55.032,23	contr. value	R$25.000,00
	quant items	1	concluded		
subject	Contratação de empresa especializada na elaboração de projetos de arquitetura e engenharia ao nível de projeto executivo para reforma do térreo e mezanino (sobreloja) do edifício sede da Procuradoria Regional do Trabalho 18ª Região				
obs	Serviços de engenharia e arquitetura no mesmo item. Calculo dos valores: p.117 do edital.				
protest					
Source	comprasnet				

001	78	Estudos e Projetos de Arquitetura
1	projetos de arquitetura e engenharia ao nível de projeto executivo para reforma do térreo e mezanino (sobreloja) do edifício sede da Procuradoria Regional. 1.372,50m2	

est. value	R$55.032,23	contr. value	R$25.000,00		
quant	1,00 unit	un	value unit		
quant. crit. prof	600,00	quant. crit. op.	600,00		

crit. prof.	Certidão emitida em nome do profissional integrante do quadro da licitante, de aptidão para a execução de serviços de elaboração, desenvolvimento confecção ou atividade similar, de Projeto de Reforma (Arquitetura e Instalações elétricas), em nível executivo, para edificação comercial, administrativa, corporativa ou institucional, com área útil de, no mínimo, 600 m².
crit. op.	Atestado de Capacidade Técnica em nome da licitante, onde reste comprovada a elaboração de Projeto de Reforma (Arquitetura e Instalações elétricas), em nível executivo, para edificação comercial, administrativa, corporativa ou institucional, com área útil de, no mínimo, 600 m².
obs	Custo arquitetura: R$9.905,80 (18% do total estimado).

200121 0009/2017	1ª Superintendência de Polícia Rodoviária Federal					
	reverse auction	est. value	R$31.525,50	contr. value	R$19.299,99	
	quant items	1	concluded			
subject	Contratação de empresa especializada de engenharia ou arquitetura para fornecer projetos executivos de arquitetura e engenharia (incluindo todas as peças técnicas pertinentes) que permitam, posteriormente, a CONTRATANTE realizar licitação para a contratação de reforma com ampliação do Bloco 02.					
obs	p.1: "O objeto da presente licitação é a escolha da proposta mais vantajosa para a contratação de serviços comuns de engenharia" contradiz com: p.54: "Os projetos complementares de engenharia são serviços especializados".					
protest						
Source	comprasnet					
001	20060	Elaboração / Análise Projeto - Engenharia				
1	Projetos executivos de arquitetura e engenharia (incluindo todas as peças técnicas pertinentes) - Reforma (383,80m2) com ampliaçao (115,9m2) - delegacia (total 499,70m2).					
est. value	R$31.525,50	contr. value	R$19.299,99			
quant	1,00	unit	un	value unit		
quant. crit. prof	400,00	quant. crit. op.	400,00			
crit. prof.	possuir em seu quadro permanente profissional detentor de Atestado(s) que comprove ter o profissional executado serviços de: (1) elaboração de projeto arquitetônico em edificação institucional e/ou comercial com área igual ou superior a 400 m2;					
crit. op.	Atestado que comprove ter a empresa executado serviços de: 7.5.1 (1) elaboração de projeto arquitetônico em edificação institucional e/ou comercial com área igual ou superior a 400 m2;					
obs	O valor calculado no edital (p.54) multiplica o valor de projeto por m2 por 0,25, todavia a tabela do IAB diz que esse valor tem que ser multiplicado por 1,25. Critério = 400m2 (p.13 do edital), area = 499,70m2 (p.29 do termo de referência).					
200207 0013/2017	Procuradoria da República da 5ª Região					
	reverse auction	est. value	R$23.175,60	contr. value	R$13.278,43	
	quant items	1	concluded			
subject	contratação de empresa especializada para elaboração de projeto executivo de reforma e adaptação do edifício-sede da Procuradoria da República da 5ª Região (projeto de acessibilidade)					
obs						
protest	Nao houve recursos, mas varios pedidos de esclarecimento sobre o preço, considerado muito baixo.					
Source	comprasnet					
001	78	Estudos e Projetos de Arquitetura				
1	Elaboração de projeto executivo de reforma e adaptação do edifício-sede da Procuradoria da República da 5ª Região. 1.335m2					
est. value	R$23.175,60	contr. value	R$13.278,43			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.				
crit. prof.	Certidão de construção ou reforma de edificação. c.1) Somente o arquiteto pode ser responsável técnico pelo projeto de acessibilidade. Poderão compor a equipe engenheiros das especialidades dos projetos complementares apresentados. c.2) Para as habilitações técnicas constantes nos itens b) e c) não serão aceitos atestados referentes a edificações que não tenham similaridade com a tipologia do objeto desta licitação.					
crit. op.						
obs	Prazo: 100 dias. Arquitetura: 100% do valor. Solicita certidao de construçao ou reforma, mas o serviço é projeto.					

250025 0007/2017	Ministério da Saúde - Núcleo Estadual em Minas Gerais				
	reverse auction	est. value	R$69.767,04	contr. value	R$38.500,00
	quant items 1	concluded			
subject	Contratação de profissional ou empresa de engenharia objetivando a elaboração do projeto referente às instalações hidrossanitárias e demais intervenções necessárias para as dependências do Ministério da Saúde, elaboração de projetos concernentes ao Prédio do Arquivo Geral do NEMS/MG, os serviços serão devidamente orçados e integrarão o Termo de Referência a ser elaborado visando à contratação de empresa para execução das obras a serem realizadas. A terceira etapa contempla subsidiar o pregoeiro oficial duarnte o certame que culminará na contratação da empresa executora da obra.				
obs	O termo de referência fala que "Tendo em vista a complexidade /peculiaridade do objeto e as inúmeras patologias existentes, para o correto dimensionamento e elaboração de sua proposta, o licitante DEVERÁ realizar vistoria nas instalações do local de execução dos serviços". No entanto, os serviços sao classificados como serviço comum, para justificar um pregao.				
protest					
Source	comprasnet				
001	20060	Elaboração / Análise Projeto - Engenharia			
1	projeto básico e executivo referente às instalações hidrossanitárias para as dependências do Ministério da Saúde - Núcleo Estadual em Minas Gerais, bem como demais intervenções necessárias e, elaboração de projetos concernentes ao Prédio do Arquivo Geral do NEMS/MG (8.167m2 e 577,00m2, respectivamente).				
	est. value	R$69.767,04	contr. value	R$38.500,00	
	quant 1,00	unit un	value unit		
	quant. crit. prof		quant. crit. op.		
	crit. prof.	Certidão relativo à execução dos serviços que compõem as parcelas de maior relevância técnica e valor significativo da contratação, a saber: 8.9.3.2. Para o Arquiteto e Urbanista: serviços de projetos arquitetônicos, execução de obras e reformas civis.			
	crit. op.	atestados de capacidade técnica em nome do licitante, relativo à execução de obra ou serviço de engenharia, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação.			
	obs	Serviços de arquitetura e urbanismo no mesmo item. Valor dos itens: 1- Projeto Arquitetônico aprovado e executado. 2- Memorial descritivo dos materiais entregue = 20% do total (R$13.953,40)			
254445 0215/2017	Instituto de Tecnologia em Imunobiologicos - Bio Manguinhos				
	reverse auction	est. value	R$682.808,74	contr. value	
	quant items 1	cancelled (no suitable bids)			
subject	Projeto Executivo referente as adequações de área classificada grau C do Centro de Produção de Antígenos Virais (CPAV) e do Laboratório de Febre Amarela (LAFAM)				
obs	Item cancelado na aceitação. Motivo: Nenhuma das empresas atendem a todas as exigências e especificação do edital.				
protest					
Source	comprasnet				
001	78	Estudos e Projetos de Arquitetura			
1	Projeto Executivo referente as adequações de área classificada grau C do Centro de Produção de Antígenos Virais (CPAV) e do Laboratório de Febre Amarela (LAFAM)				
	est. value	R$682.808,74	contr. value		
	quant 1,00	unit un	value unit		
	quant. crit. prof		quant. crit. op.		
	crit. prof.	b). Arquiteto, com experiência na elaboração de projeto executivo para áreas de produção farmacêutica com no mínimo grau "C".			

	crit. op.	Atestados(s) de Capacidade Técnica, em nome da licitante, fornecido(s) por pessoa jurídica de direito público ou privado, comprovando a elaboração de projeto executivo para área produtiva classificada no grau "C" ou "B" ou "A".
	obs	Prazo: 180 dias.

254445 0291/2017	Instituto de Tecnologia em Imunobiologicos - Bio Manguinhos					
	reverse auction		est. value	R$682.808,74	contr. value	R$600.000,00
	quant items	1	concluded			
	subject	Contratação de empresa de engenharia para elaboração de projeto executivo para a adequação de duas instalações produtoras de Insumo Farmacêutico Ativo (IFA) a saber Centro de Produção de Antígenos Virais (CPAV) e Pavilhão Henrique Aragão Laboratório de Febre Amarela (LAFAM)				
	obs	p.54 do edital: "15. ENQUADRAMENTO DO SERVIÇO Serviço de engenharia especializado". Nao deveria ser pregao.				
	protest	Um recurso alega que nao a ganhadora nao cumpriu com a quantidade minima. Esse recurso nao foi aceito pois nao havia quantidade minima prevista no edital. O segundo recurso solicita que atestado de arquiteto seja valido para projeto executivo. Esse recurso foi aceito e a licitaçao voltou para a fase inicial.				
	Source	comprasnet				
001	78	Estudos e Projetos de Arquitetura				
1	projeto executivo para a adequação de duas instalações produtoras de Insumo Farmacêutico Ativo (IFA) a saber Centro de Produção de Antígenos Virais (CPAV) e Pavilhão Henrique Aragão Laboratório de Febre Amarela (LAFAM). Projeto de adequaçao de laboratorios para atender normas da OMS. Principalmente projetos mecânicos (ventilaçao). Area: 1.383m2 (calculei a partir das plantas).					
	est. value	R$682.808,74	contr. value	R$600.000,00		
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			
	crit. prof.	b. Arquiteto, com experiência na elaboração de projeto executivo com no mínimo grau de limpeza D (equivalente à classificação ISO 8);				
	crit. op.	Atestado comprovando a elaboração de projeto executivo para área classificada grau D ou C ou B ou A (referente a equivalência das classificações ISO 8 ou ISO 7 ou ISO 5 ou ISO 4,8 respectivamente).				
	obs	Prazo: 180 dias. Valor arq: R$24.372,48 (3,5% do total estimado).				

254462 0010/2017	Fundação Oswaldo Cruz					
	RDC		est. value	R$299.539,60	contr. value	R$254.608,66
	quant items	1	concluded			
	subject	Contratação de Serviço de Engenharia para Levantamento Cadastral por Scanner a Laser e Construção do Modelo BIM do Pavilhão Ernani Braga				
	obs	Ao solicitar informaçoes pelo portal de transparência, recebi a resposta que o orgao nao possui email para esse assunto.				
	protest	Sem infomaçoes disponiveis.				
	Source	comprasnet http://www3.transparencia.gov.br/jsp/licitacoes/licitacaoExtrato.jsf?consulta=2&CodigoOrgao=36201&idLicitacao=2422960				
001	22225	Serviço Engenharia				
3	Levantamento Cadastral por Scanner a Laser e Construção do Modelo BIM do Pavilhão Ernani Braga. Sem info da area.					
	est. value	R$299.539,60	contr. value	R$254.608,66		

quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.	500,00		

crit. prof.	11.7.4.1. Coordenador do projeto: Engenheiro ou Arquiteto comprovando experiência em Coordenação de levantamentos por "escaneamento a laser (laser scanning) – 3D". 11.7.4.2. Arquiteto ou Engenheiro Civil comprovando experiência em "Elaboração ou desenvolvimento ou confecção de projeto" ou "Levantamento cadastral de arquitetura – As Built" que tenha sido desenvolvido utilizando o aplicativo Revit da Autodesk ou outro aplicativo BIM similar, desde que tal aplicativo seja compatível com as definições e requisitos da ISO/PAS 16739 e conforme o padrão IFC2x3.
crit. op.	Atestados em nome da licitante, relativo à execução de objeto de mesmo caráter e de igual complexidade ou superior, compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação: 11.7.3.1. Elaboração ou desenvolvimento ou confecção de "levantamento cadastral (as built) de edificações com no mínimo 500m² e 4 pavimentos". 11.7.3.2. Elaboração ou desenvolvimento ou confecção "levantamento cadastral (as built) de edificação com no mínimo 500m² utilizando escaneamento a laser (laser scanning) – 3D" ou "fotogrametria de alta resolução".
obs	Prazo: 180 dias

255026 0006/2017	Fundação Nacional de Saúde - Coordenacao Regional de Sergipe				
	reverse auction	est. value	R$54.307,50	contr. value	R$28.990,00
	quant items 1	concluded			
subject	Contratação de empresa de engenharia ou arquitetura para a elaboração de projeto executivo de adaptação de acessibilidade para portadores de mobilidade reduzida, no edifício sede da Superintendência Estadual da Funasa em Sergipe				
obs					
protest					
Source	comprasnet				

001	20060	Elaboração / Análise Projeto - Engenharia
1	estudo técnico preliminar (ETP) e Projeto Executivo de adaptação para acessibilidade de pessoas de mobilidade reduzida no edifício sede da Funasa – Superintendência Estadual de Sergipe. Sem informaçao sobre area.	

est. value	R$54.307,50	contr. value	R$28.990,00		
quant	1,00 unit	un	value unit		
quant. crit. prof	1.000,00	quant. crit. op.	1.000,00		

crit. prof.	equipe para execução do projeto será constituída de profissionais com habilitação para elaborá-los, conforme suas atribuições e comprovadas mediante CATs
crit. op.	deverá ser comprovada experiência em elaboração de projeto similar ao ora licitado
obs	Prazo: 90 dias. 100% arq. Para efeitos de similaridade de objeto para aferição de experiências, a(s) certidão (ões) e atestado(s) serão considerados válidos se referentes a edificações públicas com área construída maior que 1.000,00m2

343003 0002/2017	IPHAN - 3ª Coordenação Regional - MA					
	open tendering	est. value	R$137.728,14	contr. value	R$96.590,66	
	quant items	1	concluded			
subject	contratação de pessoa jurídica visando à execução de serviços técnicos especializados de arquitetura e engenharia, para a elaboração de projetos relativos à reforma, restauração e complementares. Sobrado da rua Joao Vital de Matos - Sao Luis.					
obs	Consta como agendada, mas ha contrato. Nao ha informaçoes no site do orgao (IPHAN) nem do Ministério da Cultura.					
protest	Nao disponivel no sistema.					
Source	http://www3.transparencia.gov.br/licitacoes/123837987					
001	**78**	Estudos e Projetos de Arquitetura				
1	contratação de pessoa jurídica visando à execução de serviços técnicos especializados de arquitetura e engenharia, para a elaboração de projetos relativos à reforma, restauração e complementares. Nao ha informaçoes sobre a area.					
	est. value	**R$137.728,14**	contr. value	**R$96.590,66**		
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			
	crit. prof.	Coordenador: Atestado em nome deste Responsável Técnico, que comprove acervo técnico de elaboração de projeto arquitetônico de intervenção em edificação inserida em área de tombamento a nível federal ou estadual ou com tombamento isolado. Este atestado deverá ser acompanhado, de modo a compô-lo, de: 1) Registro de Responsabilidade Técnica – RRT/CAU, do serviço a que se refere o mesmo e /ou certidão emitida pelo CAU que comprove a sua execução; 2) Aprovação de tal(is) projeto(s) por órgão oficial de preservação a nível federal ou estadual (no caso, o IPHAN ou órgãos estaduais de preservação à semelhança do DPHAP-MA). Arquiteto: Profissional com Graduação em Arquitetura / Arquitetura e Urbanismo e acervo técnico de elaboração de projeto arquitetônico de intervenção em edificação inserida em área de tombamento ou com tombamento isolado a nível federal ou estadual, acompanhado da aprovação deste projeto pelo órgão oficial de preservação;				
	crit. op.	habilitação para desempenho de atividade pertinente e compatível com as características do objeto deste Projeto Básico, ou seja, para elaboração de projeto de intervenção em imóvel				
	obs	Prazo: 250 dias. Arq: R$66.535,35 (48,3% do valor total estimado).				
343011 0003/2017	IPHAN - 11ª Coordenação Regional					
	request for quotations	est. value	R$537.174,49	contr. value	R$483.457,04	
	quant items	1	concluded			
subject	Contratação de serviços técnicos especializados de arquitetura e engenharia para a elaboração de projeto arquitetônico de restauração e complementares para a Fortaleza de Santa Cruz de Anhatomirim					
obs	Consta como agendada, mas ha contrato. Técnica e preço. Infos em http://www.transparenciapublica.gov.br/jsp/licitacoes/licitacaoExtrato.jsf?consulta=2&CodigoOrgao=20411&idLicitacao=2556279 Sem atas nem recursos.					
protest	Nao disponivel no sistema.					
Source	http://www3.transparencia.gov.br/licitacoes/119329946					
001	78	Estudos e Projetos de Arquitetura				
1	Objeto da contratação refere-se a elaboração de projeto arquitetonico executivo de restauração e projetos complementares					
	est. value	R$537.174,49	contr. value	R$483.457,04		
	quant	1,00	unit	un	value unit	

quant. crit. prof | quant. crit. op.

crit. prof.

crit. op. 3.10.1.5. Comprovação de capacidade técnica da empresa OU Responsável Técnico, com a apresentação de pelo menos 01 (um) Atestado e/ou Certidão expedido por pessoa jurídica de direito público ou privado, comprovando que a empresa OU o Responsável Técnico tenha elaborado projeto de conservação, manutenção, reparação, preservação, reabilitação, adaptação, reconstrução, reforma, restauração ou qualquer outro tipo de intervenção em bem de reconhecido valor cultural, protegido por legislação federal, estadual ou municipal.

obs Prazo: 390 dias

(SELECTION CRITERIA) PROPOSTA TÉCNICA:

4.2.1. Conhecimento do Problema (CP): A partir da análise do material técnico oferecido pela Administração, da vistoria obrigatória ao local do projeto e das diligências que livremente decidir realizar, a licitante deverá demonstrar ter pleno conhecimento dos serviços objeto desta licitação, respondendo tecnicamente aos seguintes itens (i) ao Objeto e Objetivos de Contratação (OC) e (ii) Metodologia e Plano de Trabalho que pretende adotar para realização dos serviços (MP).

4.2.2. Capacidade Técnica da Empresa (CT): expresso pelo tempo de registro da empresa no conselho de classe (TE) e pela Comprovação de Experiência da empresa (CE) em serviços realizados pela Contratada, similares e compatíveis com o objeto deste Contrato;

4.2.3. Capacidade da Equipe Técnica (ET): expresso pelo tempo de formação do profissional (TFC) e pela experiência de membros da equipe técnica indicados pela licitante na prévia execução de serviços similares e compatíveis com o objeto deste Contrato, quais sejam, Coordenador de Equipe (TEC), Engenheiro Civil (EC), Arquiteto/Arquiteto Urbanista (AU);

Pontuaçao em funçao de anos desde a formatura e em quantidade de projetos (sem area minima).

343034 0003/2017 Instituto do Patrimônio Histórico e Artístico nacional - IPHAN/MS

reverse auction | est. value R$299.300,00 | contr. value R$70.000,00

quant items 1 | concluded

subject Projeto arquitetônico executivo para recuperação e adequação para uso cultural do Conjunto da Rotunda Ferroviária de Campo Grande/MS

obs Renovation of historical building, including diagnostic of its situation.

protest Impugançao refere-se ao fato de se aceitar engenheiros. Impugnaçao negada.
Recursos tratam de inexequibilidade da proposta e da modalidade pregao, quando deveria ser concurso.
Recurso nao foi aceito.

Source comprasnet

001 | 78 | Estudos e Projetos de Arquitetura

1 projeto arquitetônico executivo

est. value R$299.300,00 | contr. value R$70.000,00

quant 1,00 | unit un | value unit

quant. crit. prof | quant. crit. op.

crit. prof. Certidao relativa a execuçao de projeto de reparação, preservação, reabilitação, adaptação, reconstrução, reforma, restauração, ou qualquer outro tipo em patrimônio cultural edificado.

crit. op. atestado ou certidão assegurando a empresa ou responsável técnico ter executado os seguintes serviços: projetos de reparação, preservação, reabilitação, adaptação, reconstrução, reforma, restauração, ou qualquer outro tipo em patrimônio cultural edificado

obs

343036 0002/2017	IPHAN - 19ª Superintendência Regional em Teresina					
	request for quotations	est. value	R$185.600,00	contr. value	R$160.000,00	
	quant items	1	concluded			
subject	contratação de empresa especializada para execução de projeto executivo de restauração do conjunto arquitetônico da Estação Ferroviária de Teresina					
obs	Consta como agendada, mas ha contrato registrado. http://compras.dados.gov.br/contratos/doc/contrato/3430365000002201 7 Informaçoes nao disponiveis no site do IPHAN.					
protest	Nao disponivel no sistema.					
Source	http://www3.transparencia.gov.br/licitacoes/116138033					
001	78	Estudos e Projetos de Arquitetura				
1	projeto executivo de restauração do conjunto arquitetônico da Estação Ferroviária de Teresina. Edificaçao: 2.015,49m2 Paisagismo: 3.000m2					
est. value	R$185.600,00	contr. value	R$160.000,00			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.				
crit. prof.	01 (um) profissional graduado em Arquitetura e Urbanismo, sendo especialista na área de restauração, comprovado por declaração da instituição de ensino; OU tenha desenvolvido no mínimo (01) um trabalho na área de conservação e restauro em edifícios históricos, comprovado por declarações e/ou atestados de capacidade técnica emitidos por entidades públicas ou privadas.					
crit. op.						
obs	Prazo: 330 dias. Inclui arquitetura, engenharia e arqueologia, mas nao ha informacoes sobre valores de cada um.					
343041 0006/2017	Instituto do Patrimônio Histórico e Artístico Nacional - IPHAN Superintendência do Estado do Amapá					
	request for quotations	est. value	R$50.000,00	contr. value	R$36.081,80	
	quant items	1	concluded			
subject	Contratação de serviços técnicos especializados de arquitetura e engenharia para a elaboração de levantamento de cobertura e esquadrias, cálculo e projeto executivo da cobertura, projetos complementares de hidráulica, sanitário e elétrico e planilha orçamentária no âmbito da reforma completa do Manganês Esporte Clube					
obs	Consta como agendada no sistema. Nenhuma informaçao de atas, recursos nem impugnacoes disponivel. Contrato foi assinado. Arq + eng no mesmo item.					
protest	Nao disponivel no sistema.					
Source	http://www3.transparencia.gov.br/licitacoes/117544590					
001	78	Estudos e Projetos de Arquitetura				
3	Contratação de serviços técnicos especializados de arquitetura e engenharia para a elaboração de levantamento de cobertura e esquadrias, cálculo e projeto executivo da cobertura, projetos complementares de hidráulica, sanitário e elétrico e planilha orçamentária no âmbito da reforma completa do Manganês Esporte Clube. Projeto refere-se a recuperaçao de patrimônio. Nao ha projeto especifico de arquitetura, mas "Identificação e Conhecimento do Bem, levantamento (detalhes construtivos)".					
est. value	R$50.000,00	contr. value	R$36.081,80			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.				
crit. prof.	O Engenheiro e o Arquiteto: deverá comprovar a sua experiência por intermédio de: - 01 (um) Atestado de Capacidade Técnica, emitido por pessoa jurídica de direito público ou					

privado, que comprove que o mesmo tenha prestado serviços assemelhados ao objeto do presente Edital;
- Curriculum Vitae com foto.

crit. op.

obs Prazo: 220 dias. Nao é especificado o valor de arquitetura.

380941 0007/2017 Delegacia Regional do Trabalho em Minas Gerais

reverse auction | est. value R$977.360,92 | contr. value R$308.899,00

quant items 4 | concluded

subject Contratação de serviços técnicos comuns de engenharia compreendendo a elaboração de projetos básicos, executivos complementares e outros serviços correlatos, necessários e suficientes à execução das obras de reforma e/ou melhoria dos imóveis da Superintendência Regional do Trabalho em Minas Gerais

obs Quatro itens, cada um deles compreende varios serviços de arq + eng. No entanto, na planilha o orgao solicita que sejam detalhados os preços por m2.

protest Recursos referem-se a apresentaçao de documentos e a inexequililidade das propostas. Recursos negados: "Não há, portanto, que se falar em inexequibilidade dos valores propostos na fase de lances, como requerem as recorrentes, uma vez que as recorridas foram incisivas em suas argumentações e esclarecimentos, apontando de forma definitiva seu desejo e condição de assumir os trabalhos objeto do presente certame conforme disputado e proposto." Nao foram apresentados documentos confirmando ser exequivel.

Source comprasnet

001 | 20060 | Elaboração / Análise Projeto - Engenharia

1 Contratação de empresa de engenharia e/ou arquitetura para executar serviços comuns de engenharia compreendendo a elaboração de projetos básicos, executivos complementares e outros serviços correlatos, necessários e suficientes à execução das obras de reforma e/ou melhoria do imóvel que abriga a sede da SRTb/MG em Belo Horizonte/MG. Area = 4.680m2

est. value R$668.836,73 | contr. value R$167.900,00

quant 1,00 | unit un | value unit

quant. crit. prof | quant. crit. op. 2.000,00

crit. prof. Atestados para Engenheiros e/ou Arquitetos/Urbanistas, de acordo com as atribuições técnicas da categoria profissional envolvida e/ou respectiva especialização, nos termos da regulamentação do conselho profissional competente (CREA/CAU):
a) Serviços de elaboração de projetos executivos de arquitetura/detalhamento;

crit. op. Atestados de Elaboração de projetos executivos de arquitetura/detalhamento, instalações elétricas normal e estabilizada, sistemas de climatização, sistemas de combate a incêndio e estrutural:
8.9.2.1.1 Os projetos a que se refere o subitem acima, para os fins a que se propõe, devem ser elaborados em edificações com área construída mínima de 2.000,00 m² (para o Item 1 do objeto) e com área construída mínima de 220 m² (para os itens 2, 3 e 4 do objeto), limite mínimo dentro do percentual de 50% (cinquenta por cento) dos quantitativos licitados

obs

002 | 20060 | Elaboração / Análise Projeto - Engenharia

1 Elaboração de projetos básicos, executivos complementares e outros serviços correlatos, necessários e suficientes à execução das obras de reforma e/ou melhoria do imóvel (Contagem - MG). Area = 600m2.

est. value R$115.727,73 | contr. value R$49.500,00

quant 1,00 | unit un | value unit

quant. crit. prof | quant. crit. op. 220,00

crit. prof. Atestados para Engenheiros e/ou Arquitetos/Urbanistas, de acordo com as atribuições técnicas da categoria profissional envolvida e/ou respectiva especialização, nos termos da regulamentação do conselho profissional competente (CREA/CAU):
a) Serviços de elaboração de projetos executivos de arquitetura/detalhamento;

crit. op. Atestados de Elaboração de projetos executivos de arquitetura/detalhamento, instalações

elétricas normal e estabilizada, sistemas de climatização, sistemas de combate a incêndio e estrutural:
8.9.2.1.1 Os projetos a que se refere o subitem acima, para os fins a que se propõe, devem ser elaborados em edificações com área construída mínima de 2.000,00 m² (para o Item 1 do objeto) e com área construída mínima de 220 m² (para os itens 2, 3 e 4 do objeto), limite mínimo dentro do percentual de 50% (cinquenta por cento) dos quantitativos licitados

obs

003	20060	Elaboração / Análise Projeto - Engenharia

1 Contratação de empresa de engenharia e/ou arquitetura para executar serviços comuns de engenharia compreendendo a elaboração de projetos básicos, executivos complementares e outros serviços correlatos, necessários e suficientes à execução das obras de reforma e/ou melhoria do imóvel que abriga a GRTb em Juiz de Fora/MG. Area = 510m2

est. value R$99.286,23 contr. value R$48.500,00

quant 1,00 unit un value unit

quant. crit. prof quant. crit. op. 220,00

crit. prof. Atestados para Engenheiros e/ou Arquitetos/Urbanistas, de acordo com as atribuições técnicas da categoria profissional envolvida e/ou respectiva especialização, nos termos da regulamentação do conselho profissional competente (CREA/CAU):
a) Serviços de elaboração de projetos executivos de arquitetura/detalhamento;

crit. op. Atestados de Elaboração de projetos executivos de arquitetura/detalhamento, instalações elétricas normal e estabilizada, sistemas de climatização, sistemas de combate a incêndio e estrutural:
8.9.2.1.1 Os projetos a que se refere o subitem acima, para os fins a que se propõe, devem ser elaborados em edificações com área construída mínima de 2.000,00 m² (para o Item 1 do objeto) e com área construída mínima de 220 m² (para os itens 2, 3 e 4 do objeto), limite mínimo dentro do percentual de 50% (cinquenta por cento) dos quantitativos licitados

obs

004	20060	Elaboração / Análise Projeto - Engenharia

1 Elaboração de projetos básicos, executivos complementares e outros serviços correlatos, necessários e suficientes à execução das obras de reforma e/ou melhoria do imóvel - Poços de Caldas - MG. Area = 462m2

est. value R$93.510,22 contr. value R$42.999,00

quant 1,00 unit un value unit

quant. crit. prof quant. crit. op. 220,00

crit. prof. Atestados para Engenheiros e/ou Arquitetos/Urbanistas, de acordo com as atribuições técnicas da categoria profissional envolvida e/ou respectiva especialização, nos termos da regulamentação do conselho profissional competente (CREA/CAU):
a) Serviços de elaboração de projetos executivos de arquitetura/detalhamento;

crit. op. Atestados de Elaboração de projetos executivos de arquitetura/detalhamento, instalações elétricas normal e estabilizada, sistemas de climatização, sistemas de combate a incêndio e estrutural:
8.9.2.1.1 Os projetos a que se refere o subitem acima, para os fins a que se propõe, devem ser elaborados em edificações com área construída mínima de 2.000,00 m² (para o Item 1 do objeto) e com área construída mínima de 220 m² (para os itens 2, 3 e 4 do objeto), limite mínimo dentro do percentual de 50% (cinquenta por cento) dos quantitativos licitados

obs

389086 0006/2017	Conselho Regional de Engenharia e Agronomia de Mato Grosso do Sul					
	reverse auction	est. value	R$83.825,00	contr. value	R$40.350,00	
	quant items	2	concluded			
subject	Contratação de empesa para serviços de Consultoria e Etiquetagem de Projeto de Reforma e Ampliação do edifício sede do CREA-MS em programa de sustentabilidade PBE Edifica					
obs	Consultoria (arq) + etiquetagem.					
protest						
Source	comprasnet					
001	809	Consultoria / Assessoria - Engenharia				
5	Consultoria para avaliação e orientação do projeto de arquitetura em desenvolvimento e demais projetos complementares a serem contratados. Sem informaçoes da area.					
	est. value	R$47.000,00	contr. value	R$20.300,00		
	quant	1,00	unit	un	value unit	
	quant. crit. prof	500,00	quant. crit. op.			
	crit. prof.	Certidão a fim de comprovar que os responsáveis técnicos da licitante, executaram serviço similar com as características do objeto desta licitação, em características, quantidades e prazos, expedido(s) por pessoa jurídica de direito público ou privado. b.1) Será considerado serviço similar ao do escopo o desenvolvimento de projeto, a execução de serviço com aplicação de soluções sustentáveis em empreendimentos maiores que 500 m² de área construída.				
	crit. op.					
	obs	Prazo: 180 dias.				
400066 0001/2017	Superintendência Regional do Trabalho no Espírito Santo					
	request for proposals	est. value	R$125.513,96	contr. value	R$86.604,63	
	quant items	1	concluded			
subject	contratação de empresa especializada na execução de atualização dos projetos de engenharia e arquitetura para a reforma e ampliação da Sede da SRT/ES					
obs	Agendada no Comprasnet, porém consta contrato no sistema. Arq + eng no mesmo item. Segundo o edital: "certo e total. Considerando: • As particularidades dos serviços de engenharia que serão necessários para a adequação dos projetos na obra em execução da SRTE/ES; • A inexistência de serviços correlatos da mesma magnitude em outras obras do serviços publico, que poderiam ser considerados como referencia; • Ausência de critérios específicos nos orçamentos elaborado pela tabela do SINAPI." Entao nao deveria ser serviço comum de engenharia. Ressalte-se que as empresas que demonstrem interesse em participar do certame e que não foram convidadas, só poderão participar da licitação se estiverem regularmente cadastradas.					
protest	Sem informaçoes sobre recurso no sistema.					
Source	http://www3.transparencia.gov.br/licitacoes/118913060					
001	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos				
1	Atualização dos projetos elétrico,hidrossanitário, esgoto e água pluvial, prevenção e combate a incêndios, arquitetônico e detalhamentos, lógico, anexos ao projeto básico original, climatização, ventilação e exaustão, SPDA, urbanismo, elétrico para implementos externos,hidrossanitário para implementos externos. (atualização do projeto básico e projetos complementares já contratados em outra ocasião). Area arquitetura: 2618m2					
	est. value	R$125.513,96	contr. value	R$86.604,63		
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			

crit. prof.	Certidão relativo à execução dos serviços que compõem as parcelas de maior relevância técnica e valor significativo da contratação.
crit. op.	Atestados relativo à execução de projeto de engenharia/arquitetura ,compatível em características, quantidades e prazos com o objeto da presente licitação, envolvendo as parcelas de maior relevância e valor significativo do objeto da licitação
obs	Prazo: doze meses. Sem estimativa de valor pra arq somente.

420001 0001/2017 Ministério da Cultura

request for proposals | est. value R$149.193,07 | contr. value R$75.300,00

quant items 1 | concluded

subject	Elaboração de projetos executivos de arquitetura e complementares de engenharia para a reforma e modernização da Biblioteca Demonstrativa Maria da Conceição Moreira Salles.
obs	Consta em fase de habilitaçao no Comprasnet, mas existe informaçao de contrato, com dois aditivos para prorrogaçao da vigência. Socio da empresa vencedora trabalha para o Iphan, mas nao foi inabilitado.
protest	3 recursos sobre exigências formais da habilitaçao (falta de documentos). Nao foram aceitos.
Source	http://www.cultura.gov.br/licitacoes/em-andamento

001 | 20060 | Elaboração / Análise Projeto - Engenharia

1 projetos executivos de
arquitetura e complementares de engenharia para a reformae modernização da Biblioteca Demonstrava Maria da Conceição Moreira Salles.
Sem informaçao da area.

est. value R$149.193,07 | contr. value R$73.500,00

quant 1,00 | unit un | value unit

quant. crit. prof 700,00 | quant. crit. op.

crit. prof.	comprovem a execução, em cada atestado, de serviços de elaboração de projetos compaéveis em caracterísëcas e comple xidade àqueles relaëvos ao objeto deste Projeto Básico e totalizando uma área mínima projetada de 700m2.
crit. op.	
obs	Praxo: 45 dias. Arq: R$67.537,48 (45,2% do valor estimado).

443001 0001/2017 Agência Nacional de Aguas

request for proposals | est. value R$62.302,50 | contr. value R$30.000,00

quant items 1 | concluded

subject	Contratação de empresa especializada para elaboração de Projeto de Ocupação referentes aos blocos N e O da Agência Nacional de Águas - ANA
obs	Consta como agendada, mas ha contrato.
protest	Nao disponivel no sistema.
Source	http://www3.transparencia.gov.br/licitacoes/120838427 http://www.ana.gov.br/editaiselicitacoes/Detalhes.aspx?idResumo=539

001 | 78 | Estudos e Projetos de Arquitetura

1 elaboração de Projeto de Ocupação referentes aos blocos N e O da Agência Nacional de Águas
Total: 4000m2
Os produtos finais serão (projeto executivo):
I - Projetos finais de ocupação com móveis em uso atual;
II - Projetos finais de ocupação com proposta de confecção de móveis padronizados.

est. value R$62.302,50 | contr. value R$30.000,00

quant 1,00 | unit un | value unit

quant. crit. prof | quant. crit. op. 1.900,00

crit. prof.

crit. op. atestado o qual comprove que a licitante prestou, ou esteja prestando, de forma satisfatória, serviços compatíveis com o objeto, em no mínimo 1.900m².

obs Prazo: 90 dias. 100% arq.

530001 0016/2017 Ministério da Integraçao Nacional

reverse auction | est. value R$7.875.467,12 | contr. value R$4.779.235,70

quant items 25 | concluded

subject Contratação de empresa de engenharia para prestação de serviços continuados de manutenção preventiva, preditiva e corretiva

obs 25 items, one classified as architecture.

protest Protest does not concern technical criteria, but feasibility of the price proposed by the bidder, compliance with economical criteria and lack of demanded documents. This protest was rejected.

Source comprasnet

016 | 20591 | Consultoria e Assessoria - Arquitetura

2 Arquitetos para desempenhar as seguintes atividades: Elaboração de leiautes e projetos de arquitetura e interiores

est. value R$661.663,92 | contr. value R$456.361,80

quant 2,00 unit | worker | value unit

quant. crit. prof | quant. crit. op.

crit. prof.

crit. op. Atestado de Capacidade Técnico Operaciona o qual comprove que a licitante prestou ou está prestando, de forma satisfatória, serviços compatíveis com o objeto deste Termo de Referência por período não inferior a três anos; comprovar que tenha executado contrato(s) com um mínimo de 50% (cinquenta por cento) do número de postos de trabalho a serem contratados.

obs

765701 0007/2017 Hospital Central da Marinha

reverse auction | est. value R$55.000,00 | contr. value R$33.950,00

quant items 1 | concluded

subject contratação de empresa de Arquitetura/Engenharia para elaboração de Projeto Básico para revitalização e modernização da cozinha do Hospital Central da Marinha (310,00 m²)

obs All services (architecture and engineering) in one item.

protest Um recurso alegando que a empresa nao apresentou os atestados para habilitaçao técnica. A ganhadora apresentou atestados de serviços de urbanismo e alega ser uma empresa séria. O recurso nao foi aceito. Acredito ser uma situaçao absurda.

Source comprasnet

001 | 78 | Estudos e Projetos de Arquitetura

1 Contratação de empresa de Arquitetura/Engenharia para elaboração de Projeto Básico para revitalização e modernização da cozinha do Hospital Central da Marinha. A intervenção será feita na área de aproximadamente 310,00 m².

est. value R$55.000,00 | contr. value R$33.950,00

quant 1,00 unit | un | value unit

quant. crit. prof | quant. crit. op.

crit. prof. Arquiteto detentor de atestado de responsabilidade técnica por execução de serviço de características semelhantes ou sob cuja responsabilidade técnica foram executados serviços similares ao objeto da contratação.

crit. op. Os Atestados de Capacidade Técnica apresentados deverão comprovar que a empresa tenha prestado serviços de características técnicas e de tecnologia de execução equivalente ou

		superior ao objeto deste Edital, e que façam relevância expressa, no mínimo, a: a) Elaboração de projeto de arquitetura para estacionamentos descobertos e cobertos; b) Elaboração de projeto de estrutura metálica de no mínimo, 2 pavimentos; e c) Elaboração de projeto de instalações de redes elétricas e hidráulicas (drenagem).
	obs	arquitetura e engenharia no mesmo item. nao ha indicaçao do valor do projeto arquitetônico. Serviço = reforma de hospital, mas o critério solicita experiência com projeto de estacionamentos.

765705 0001/2018	Unidade Integrada de Saúde Mental da Marinha					
	request for quotations	est. value	R$129.425,66	contr. value	R$76.361,14	
	quant items 1	concluded				
subject	contratação de empresa especializada na execução do serviço de elaboração do projeto de engenharia para orientar as obras necessárias à modernização e ampliação do rancho da Unidade Integrada de Saúde Mental (UISM) (reforma e amplioaçao)					
obs	One item comprising engineering and architecture Infos no Comprasnet, mas nao ha os documentos originais apresentados pelos licitantes.					
protest	Nao ha informacoes sobre impugnacoes e recursos					
Source	comprasnet					

001	20060	Elaboração / Análise Projeto - Engenharia
1	Elaboração dos Projetos de Arquitetura e Engenharia para modernização e ampliação do rancho da Unidade Integrada de Saúde Mental (UISM), com 495m2, e área do entorno para urbanização com 480m2. Reforma e ampliaçao.	
est. value	R$129.425,66 contr. value	R$76.361,14
quant	1,00 unit un value unit	
quant. crit. prof	quant. crit. op.	
crit. prof.	Atestados relativos à execução dos seguintes serviços: Para Arquiteto - Projeto de arquitetura e urbanização. Sem quantidade.	
crit. op.	atestados em nome do licitante, relativo à execução de projetos de obra ou serviço de modernização, adaptação, reforma, construção de área que contenha cozinha e respectivos setores de apoio com, pelo menos, 160 m² que equivalem a 50% da área atingida pelos serviços.	
obs	arquitetura e engenharia no mesmo item. Valor dos projetos de arquitetura: R$25.737,00 (19,88% do total)	

787700 0006/2016	Hospital Naval de Brasília					
	reverse auction	est. value	R$832.442,15	contr. value	R$130.000,00	
	quant items 1	concluded				
subject	Contratação de empresa especializada para promover a elaboração do Estudo Preliminar (EP), do Projeto Básico Completo (PB) e Projeto Executivo (PE) para a construção de prédio que amplia a estrutura física do Hospital Naval de Brasília (HNBRA). Area nao informada no edital, porém informada nos esclarecimentos: Área de Intervenção Área Atual: 4.454,20m², a ser reformada. Ampliação: 1.135,80m², nova construção Área Final: 5.590,00m²					
obs						
protest						
Source	comprasnet					

001	20060	Elaboração / Análise Projeto - Engenharia
1	Contratação de empresa especializada para promover a elaboração do Estudo Preliminar (EP), do Projeto Básico Completo (PB) e Projeto Executivo (PE) para a construção de prédio que amplia a estrutura física do Hospital Naval de Brasília (HNBRA)	
est. value	R$832.442,15 contr. value	R$130.000,00
quant	1,00 unit un value unit	
quant. crit. prof	quant. crit. op.	

crit. prof.	10.4.1. Documentação relativa à Capacidade Técnico-Profissional 10.4.1.1. Declaração da LICITANTE de que apresentará, no ato da assinatura do Contrato, os documentos que comprovem que possui, em seu quadro de funcionários e sócios, pelo menos um Engenheiro ou Arquiteto com experiência comprovada em execução de projeto semelhante ao exigido neste Edital, apresentando (no ato da assinatura do Contrato) Certidão de Acervo Técnico (CAT) com acervo de projetos de construção ou reforma de estabelecimentos assistenciais de saúde contemplando a construção de Unidade de Terapia Intensiva (UTI) e demais instalações de apoio necessárias. Tal Engenheiro ou Arquiteto será considerado como Coordenador dos demais profissionais coautores dos projetos atinentes ao objeto do Edital. (2800m2 exigidos para esse profissional). 10.4.1.2. Declaração da LICITANTE de que todos os profissionais envolvidos nos projetos atinentes ao objeto deste Edital, quando houver, serão profissionais da área de arquitetura e/ou engenharia, devidamente registrados no CREA/CAU. Vedada a subcontratação. 10.4.1.16. Os demais profissionais envolvidos na elaboração dos demais projetos objeto dessa contratação, ainda os que não precisem demonstrar sua capacidade técnicoprofissional por meio de atestados, também deverão ter formação acadêmica de nível superior compatível com a responsabilidade técnica assumida. A compatibilidade será aferida pelo HNBRA durante a execução do contrato.
crit. op.	
obs	Valor da arquitetura: R$90.877,52 (13% do valor total). Todos os serviços (arq + eng) no mesmo item.

925138 0028/2017	Banco Central do Brasil - Gerência Administrativa em São Paulo				
	reverse auction	est. value	R$1.647.695,43	contr. value	R$1.644.182,75
	quant items 1	concluded			
subject	serviços continuados de adaptação de espaços internos nas dependências do Bacen, em São Paulo				
obs	Varios itens de manutençao classificados como serviço de arquitetura.				
protest	Um recurso sobre qual. técnica. O recurso alega que nao foi solicitado para apresentar docs de qual. juridica. mas o orgao analisou também a documentaçao técnica e verificou que a empresa nao preenche os requisitos do edital. Recurso negado.				
Source	comprasnet				

001	78	Estudos e Projetos de Arquitetura

2	projeto e implantação de leiautes (+desenvolvimento de estudos e projetos que pela sua natureza sejam pertinentes à área de engenharia/arquitetura do Banco), além de outros serviços de manutençao. 15 postos de trabalho, sendo 3 de arquiteto. 42.189,45m2				
	est. value	R$1.647.695,43	contr. value	R$1.644.182,75	
	quant 1,00	unit un	value unit		
	quant. crit. prof 500,00	quant. crit. op. 500,00			

crit. prof.	5.4. Apresentação de, no mínimo, um atestado, em nome de responsável(eis) técnico(s) indicado(s), emitido por empresa idônea, visado pelo CAU, comprovando a direção e execução de serviços de complexidade operacional equivalente à do objeto em licitação; 5.4.1. Considera-se equivalência a execução de serviços de leiaute em edificações comerciais, com pavimento de no mínimo 500m², pelo período no mínimo de 1 (um) ano;
crit. op.	5.5. Apresentação de atestado(s), emitido(s) por empresa(s) idônea(s), comprovando que a Licitante tenha executado serviço semelhante com no mínimo 7 (sete) postos, em edificações comerciais, com pavimento de no mínimo 500 m², pelo período no mínimo de 1 (um) ano;
obs	Prazo: 12 meses. Sem valor arq.

925152 0002/2017	Conselho Regional de Contabilidade de Minas Gerais					
	request for quotations	est. value	R$473.472,85	contr. value	R$252.529,22	
	quant items	1	concluded			
subject	Contratação, sob regime de empreitada por preço global, de empresa especializada em engenharia e/ou arquitetura, para elaboração de projetos complementares executivos, referentes à obra de construção da nova sede administrativa do Conselho Regional de Contabilidade de Minas Gerais					
obs	Técnica e preço. Informaçoes apenas no site do orgao. Arq + eng no mesmo item. A Comissão de Licitação definirá o vencedor da licitação à proponente que obtiver a maior pontuação na Nota Final (NF), calculada através da média ponderada das Notas das PROPOSTAS TÉCNICAS E PROPOSTAS DE PREÇOS, conforme a seguinte expressão: • NF = (0,70 X NT) + (0,30 X NP)					
protest	Edital solicita apresentaçao de diploma, houve recurso nesse sentido, ja que o registro na entidade de classe pressupoe a conclusao do curso, mas o orgao nao deu provimento ao recurso. Edital solicita mesmos documentos na habilitaçao e na proposta técnica (comprovaçao de vinculo empregaticio de arquitetos e engenheiros). IN 5/2017 (10.4.b) estabelece que nao se deve, nesta fase, considerar os atestados que foram exigidos para fins de habilitação. Uma empresa apresentou recurso por ter sido desclassificada por nao ter apresentado os documentos duas vezes, mas o recurso foi negado.					
Source	http://www.crcmg.org.br/licitacoes/index/nu_ano/2017/id_modalidade/4					

001	20060	Elaboração / Análise Projeto - Engenharia

1	elaboração de projetos complementares executivos, referentes à obra de construção da nova sede administrativa do Conselho Regional de Contabilidade de Minas Gerais – CRCMG e unificação com o prédio da sede atual (paisagismo + executivo de arquitetura - projeto basico ja existe). 2.000m2					
	est. value	R$473.472,85	contr. value	R$252.529,22		
	quant	1,00	unit	un	value unit	
	quant. crit. prof		quant. crit. op.			
	crit. prof.	Atestado comprovando que os profissionais tenham executado serviços de características técnicas semelhantes ao projeto/serviço para o qual estão sendo indicados como responsáveis técnicos, exclusivamente, quanto aos projetos e serviços considerados de maior relevância, sendo eles: • Projeto de arquitetura final executivo e compatibilizado, para a 1ª e 2ª fase de implantação, contemplando todas as disciplinas e todo e qualquer ajuste necessário para a perfeita execução das obras;					
	crit. op.					
	obs	Prazo: 145 dias arq + paisagismo + luminotecnica + sustentabilidade = R$26.530,83 (5,6% do total estimado).				

925387 0002/2017	Prefeitura Municipal de Belém					
	open tendering	est. value	R$13.152.300,53	contr. value	R$7.726.491,15	
	quant items	1	concluded			
subject	CONTRATAÇÃO DE EMPRESA ESPECIALIZADA OU EMPRESAS REUNIDAS EM CONSORCIO NA ÁREA DE ENGENHARIA E/OU ARQUITETURA PARA ELABORAÇÃO DO PROJETO BÁSICO E EXECUTIVO DO SISTEMA VIÁRIO E DAS ESTAÇÕES DO BRT CENTENÁRIO					
obs	Técnica e preço. Nenhuma informaçao no Comprasnet, informaçoes disponiveis no site do orgao. Fase atual: terminada os recursos de habilitaçao. http://www.belem.pa.gov.br/licitacao/licitacao/consulta Resultado publicado em http://agenciabelem.com.br/Noticia/180286/prefeitura-de-belem-contrata-elaboracao-do-projeto-do-brt-centenario					
protest	Varios recursos, porém nenhum relativo a habilitaçao técnica. Consta no site da prefeitura que está em andamento em 5.10.2018. Contrato assinado em 20.12.2018.					
Source	http://www.belem.pa.gov.br/licitacao/licitacao/consulta					
001	442	Estudos e Projetos de Rodovias				
1	**ELABORAÇÃO DO PROJETO BÁSICO E EXECUTIVO DO SISTEMA VIÁRIO E DAS ESTAÇÕES DO BRT CENTENÁRIO** Sem informaçoes sobre a dimensao do projeto					
est. value	R$13.152.300,53	contr. value	R$7.726.491,15			
quant	1,00	unit	un	value unit		
quant. crit. prof		quant. crit. op.	10,00			
crit. prof.						
crit. op.	Certidão(ões) ou Atestado(s) em nome da Licitante comprobatórios de que a Licitante executou ou está executando serviço pertinente e compatível em características com o objeto da presente licitação, entendendo por pertinente e compatível em características, compreendendo, no mínimo, o observado abaixo: 8.5.2.1. Elaborações de projeto básico e executivo de infraestrutura de transportes urbanos para implantação de sistema viário de transporte de passageiros sobre pneus com extensão mínima de 10 km (Dez quilômetros) de projeto básico e 10 km (Dez quilômetros) de projeto executivo, comprovando ter executado, as seguintes tipologias de projetos observados abaixo: ☐ Projeto de urbanização do entorno; ☐ Projeto Geométrico; ☐ Projeto de arquitetura de paradas e estações; ☐ Projeto Viário; ☐ Projeto de drenagem;☐ Projeto de sinalização viária urbana horizontal, vertical e semafórica; ☐ Projetos de estruturas e fundações ☐ Projetos de Comunicação visual ou de informações ao usuário; ☐ Projeto de Obra de Arte Especial. ☐ Projeto de Cabeamento estruturado (Elétrico, Logico e Telefonia) Proposta técnica: ver anexo 1a					
obs	Prazo: 24 meses.					

925856 0049/2017	Secretaria de Estado de Saúde Pública do Pará					
	reverse auction	est. value	R$144.930,47	contr. value		
	quant items	1	cancelled (no suitable bids)			
subject	Contratação de empresa especializada para elaboração de projetos executivos e complementares de arquitetura e engenharia para reforma e adequação do centro cirúrgico e urgência/emergência do Hospital Regional de Cametá-Pa					
obs	Item cancelado, em virtude da documentação apresentada pelos licitantes estar em desacordo ao solicitado em edital. Ou as propostas estarem acima do valor estimado, sem possibilidade dos licitantes igualar sua proposta ao estimado. E por não haver licitantes remanescentes para nova negociação.					
protest	Varias intençoes de recurso foram recusadas.					
Source	comprasnet					

001	78	Estudos e Projetos de Arquitetura
1	elaboração de projetos executivos e complementares de arquitetura e engenharia para reforma e adequação do centro cirúrgico e urgência/emergência do Hospital Regional de Cametá 740m2 projetos executivos arq, urbanizacao, com. visual	

est. value	R$144.930,47	contr. value			
quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.			

crit. prof.	8.17.6. Certidão referente a cada um dos profissionais indicados para execução dos projetos executivos e complementares de arquitetura e engenharia, que comprove a sua respectiva capacidade técnico-profissional na realização pretérita de serviços/projetos, e experiências profissionais anteriores, relativas ao desenvolvimento de projetos executivos e Complementares para empreendimento(s) compatível(is) com o objeto desta licitação.
crit. op.	8.17.1. Alvará de Funcionamento emitido pela Prefeitura da sede do licitante, com vigência atualizada. 8.17.2. Apresentar atestado(s) de atividades anteriores exercidas pela empresa licitante que comprove aptidão da licitante para execução de serviços compatíveis com o objeto desta licitação. 8.17.3. Declaração de possuir em seu quadro funcional Engenheiro Civil e Arquiteto, responsável (is) técnico (s) pela elaboração dos projetos executivos e complementares de arquitetura e engenharia.
obs	Sem valor de arquitetura. Prazo de entrega: até 60 (trinta) dias após a assinatura do contrato (p.32 do edital).

925856 0147/2017	Secretaria de Estado de Saúde Pública do Pará					
	reverse auction	est. value	R$144.930,47	contr. value		
	quant items	1	cancelled (no suitable bids)			
subject	elaboração de projetos executivos e complementares de arquitetura e engenharia para reforma e adequação do centro cirúrgico e urgência/emergência do Hospital Regional de Cametá					
obs	Item cancelado na aceitação. Motivo: Item cancelado, em virtude da documentação apresentada pelos licitantes estar em desacordo ao solicitado em edital. Ou as propostas estarem acima do valor estimado, sem possibilidade dos licitantes igualar sua proposta ao estimado. E por não haver licitantes remanescentes para nova negociação.					
protest						
Source	comprasnet					

001	78	Estudos e Projetos de Arquitetura
1	elaboração de projetos executivos e complementares de arquitetura e engenharia para reforma e adequação do centro cirúrgico e urgência/emergência do Hospital Regional de Cametá 740m2 projetos executivos arq, urbanizacao, com. visual	

	est. value	R$144.930,47	contr. value				
	quant	1,00	unit	un	value unit		
	quant. crit. prof		quant. crit. op.				
	crit. prof.	8.17.6. Certidão referente a cada um dos profissionais indicados para execução dos projetos executivos e complementares de arquitetura e engenharia, que comprove a sua respectiva capacidade técnico-profissional na realização pretérita de serviços/projetos, e experiências profissionais anteriores, relativas ao desenvolvimento de projetos executivos e Complementares para empreendimento(s) compatível(is) com o objeto desta licitação.						
	crit. op.	8.17.1. Alvará de Funcionamento emitido pela Prefeitura da sede do licitante, com vigência atualizada. 8.17.2. Apresentar atestado(s) de atividades anteriores exercidas pela empresa licitante que comprove aptidão da licitante para execução de serviços compatíveis com o objeto desta licitação. 8.17.3. Declaração de possuir em seu quadro funcional Engenheiro Civil e Arquiteto, responsável (is) técnico (s) pela elaboração dos projetos executivos e complementares de arquitetura e engenharia.						
	obs	Sem valor de arquitetura. Prazo de entrega: até 60 (trinta) dias após a assinatura do contrato (p.32 do edital).					

925942 0059/2017	Tribunal de Justiça do Estado do Pará						
	reverse auction	est. value	R$8.365.133,33	contr. value	R$3.217.499,50		
	quant items	42	concluded				
subject	REGISTRO DE PREÇO para eventual contratação de serviços relativos à ELABORAÇÃO DE PROJETOS ARQUITETÔNICOS E COMPLEMENTARES para as obras do Tribunal de Justiça do Estado do Pará na Região Metropolitana de Belém e Interior do Estado do Pará						
obs	Registro de preços. Todos os itens classificados como projeto de engenharia. No sistema (relaçao de itens) constam 41 itens, porém no edital consta o item 42.						
protest	Um recurso sobre preço muito baixo e falta de documentos. Foi julgado improcedente. Impugnaçao sobre o item 42, nao relativo a arquitetura.						
Source	comprasnet						

006	20060	Elaboração / Análise Projeto - Engenharia					
1	Projeto arquitetônico - Estudo preliminar. 20.000m2						
	est. value	R$9,67	contr. value	R$3,69			
	quant	20.000,00	unit	m2	value unit	1	
	quant. crit. prof		quant. crit. op.	2.000,00			
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.						
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;						
	obs						

007	20060	Elaboração / Análise Projeto - Engenharia					
1	Projeto arquitetônico - Anteprojeto e projeto legal. 20.000m2						
	est. value	R$14,33	contr. value	R$6,89			
	quant	20.000,00	unit	m2	value unit	1	
	quant. crit. prof		quant. crit. op.	2.000,00			
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo					

		o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;
	obs	
008	20060	Elaboração / Análise Projeto - Engenharia
1	Projeto arquitetônico - Projeto executivo. 20.000m2	
	est. value	R$25,67 contr. value R$6,99
	quant	20.000,00 unit m2 value unit 1
	quant. crit. prof	quant. crit. op. 2.000,00
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;
	obs	
009	20060	Elaboração / Análise Projeto - Engenharia
1	Projeto arquitetônico - Projeto de urbanização. 30.000m2	
	est. value	R$10,23 contr. value R$3,69
	quant	30.000,00 unit m2 value unit 1
	quant. crit. prof	quant. crit. op. 2.000,00
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;
	obs	
010	20060	Elaboração / Análise Projeto - Engenharia
1	Projeto arquitetônico - Projeto de paisagismo. 15.000m2	
	est. value	R$7,83 contr. value R$3,49
	quant	15.000,00 unit m2 value unit 1
	quant. crit. prof	quant. crit. op. 2.000,00
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a)

		Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;
	obs	
011	20060	Elaboração / Análise Projeto - Engenharia
1	Projeto arquitetônico - Projeto de comunicação visual. 20.000m2	
	est. value	R$6,90 contr. value R$2,99
	quant	20.000,00 unit m2 value unit 1
	quant. crit. prof	quant. crit. op. 2.000,00
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;
	obs	
012	20060	Elaboração / Análise Projeto - Engenharia
1	Projeto arquitetônico - Projeto de arquitetura de interiores e mobiliários. 5.000m2	
	est. value	R$17,33 contr. value R$6,99
	quant	5.000,00 unit m2 value unit 1
	quant. crit. prof	quant. crit. op. 2.000,00
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;
	obs	
013	20060	Elaboração / Análise Projeto - Engenharia
1	Projeto arquitetônico - Projeto de acústica. 1.000m2	
	est. value	R$11,50 contr. value R$3,69
	quant	1.000,00 unit m2 value unit 1
	quant. crit. prof	quant. crit. op. 2.000,00
	crit. prof.	01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.
	crit. op.	ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;
	obs	Quantidade do serviço adaptada para ser coerente com o critério estabelecido no edital relativo ao total de serviços de arquitetura (13.2.2019).

014	20060	Elaboração / Análise Projeto - Engenharia

1 Projeto arquitetônico - Projeto de acessibilidade. 5.000m2

est. value	R$6,47	contr. value	R$2,99		
quant	5.000,00	unit	m2	value unit	1
quant. crit. prof		quant. crit. op.	2.000,00		

crit. prof. 01 (um) profissional de nível superior com formação em arquitetura ou engenharia civil, devendo o mesmo ser detentor de Atestado(s) que comprovem que o profissional(s) tenham executado serviço(s) de elaboração de projeto(s) arquitetônico(s), em nível executivo, para obra(s) em prédio público ou comercial com características similares ao do objeto da presente licitação.

crit. op. ATESTADO comprovando que a licitante executou serviços similares ao objeto da presente licitação, para obras de prédios públicos ou comerciais, conforme descrição abaixo: a) Elaboração de projetos arquitetônicos, em nível executivo, com apresentação de ao menos um atestado com área mínima de 700,00m² e área total acumulada por todos os atestados apresentados de no mínimo 2.000,00m²;

obs

926066 0006/2017 Companhia de Desenvolvimento Econômico do Pará - CODEC

reverse auction		est. value	R$145.697,02	contr. value	R$48.199,00
quant items	1	concluded			

subject: Contratação de empresas de engenharia na área de Arquitetura e Urbanismo para a concepção de projetos técnicos executivos para as obras de estruturação urbanística e arquitetônica do Distrito Industrial de Castanhal

obs: One item comprising architecture, zoning and urban design

protest

Source: comprasnet

001	51	Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos

1 concepção de projetos técnicos executivos: Projeto de Zoneamento, Projeto Arquitetônico de um Bloco Administrativo e Social eo Projeto de Estruturação Viária. 162,15ha

est. value	R$145.697,02	contr. value	R$48.199,00		
quant	1,00	unit	un	value unit	
quant. crit. prof		quant. crit. op.			

crit. prof.

crit. op. Comprovação de aptidão para a prestação dos serviços em características, quantidades e prazos compatíveis com o objeto desta licitação, ou com o item pertinente, mediante a apresentação de atestados fornecidos por pessoas jurídicas de direito público ou privado. .
a qualificação mínima requerida à contratada é de profissionais necessários e suficientes para a consecução do objeto, legalmente habilitados e registrados em conselho de classe com formação mínima de curso universitário e experiência de no mínimo 5 (cinco) anos na produção de projetos arquitetônicos.

obs

926195 0026/2017 Universidade Estadual de Roraima

reverse auction		est. value	R$321.333,33	contr. value	R$249.112,35
quant items	1	concluded			

subject: contratação de empresa especializada em engenharia para a elaboração de projeto básico e projeto executivo, referentes à conclusão do prédio da reitoria da Universidade Estadual de Roraima

obs: 1 item com serviços de engenharia e arquitetura misturados.

protest

Source: comprasnet

001	20060	Elaboração / Análise Projeto - Engenharia

1	Elaboraçao de projeto basico e projeto executivo para conclusao de um edificio. Sem informaçoes da area.				
	est. value	R$321.333,33	contr. value		R$249.112,35
	quant	1,00 unit	un	value unit	
	quant. crit. prof		quant. crit. op.		
	crit. prof.				
	crit. op.	Documentos assegurando ter seu responsável técnico ou a empresa, executado os seguintes serviços: 16.1.1 ELABORAÇÃO DE PROJETO ARQUITETÔNICO;			
	obs	"Todos os membros de nível superior integrantes da equipe técnica da CONTRATADA deverão comprovar experiência específica na área de atuação da equipe técnica antes da emissão da Ordem de Serviço, através de pelo menos dois Atestados de Capacidade Técnica (ACT) e/ou das Anotações de Responsabilidade Técnicas (ART) e/ou Registros de Responsabilidade Técnica (RRT) e o tempo de experiência através de curriculum vitae devidamente comprovado. 14.1. QUALIFIAÇAO TÉCNICA MÍNIMA: ☐ Coordenador Técnico – Engenheiro Civil ou Arquiteto com experiência mínima de 05 (cinco) anos comprovada em coordenação de projeto de edificação; ☐ Área de Arquitetura – Engenheiro Civil ou Arquiteto com experiência mínima de 05 (cinco) anos na elaboração de projetos arquitetônicos e paisagísticos de edificações; " As exigências acima nao fazem parte do que foi solicitado na habilitaçao. Projeto arquitetônico avaliado em 12,5% do valor total (p.42 do edital) = R$40.166,66			

Appendix 13: Type of building codes

code	type of building	source
EA	external area	From data
GA	garage	From data
H	hospital	Chiara and Crosbie 2001
HB	heritage building	From data
IN	industrial, workshop or warehouse	From data
KI	kitchen/dining hall	From data
LA	laboratory	From data
LI	library	Chiara and Crosbie 2001
NA	not applicable	From data
OF	office	Chiara and Crosbie 2001
PL	parking lot	Chiara and Crosbie 2001
PS	police station	Chiara and Crosbie 2001
R	residential	Chiara and Crosbie 2001
S	school/university	Chiara and Crosbie 2001
SL	slaughterhouse	From data
TH	theatre	Chiara and Crosbie 2001
UD	urban public spaces	From data

Appendix 14: Services from CATSER table

codigo	description	in portuguese
51	Studies and projects in urban planning, landscape architecture and architecture	*Estudos e Projetos Urbanísticos / Paisagísticos / Arquitetônicos*
78	Studies and projects in architecture	*Estudos e Projetos de Arquitetura*
264	Studies and projects of building facilities	*Estudos e Projetos - Instalações Prediais*
442	Studies and projects of roads	*Estudos e Projetos de Rodovias*
809	Consulting and advisory services in engineering	*Consultoria / Assessoria - Engenharia*
1341	Management or supervision of project or construction of civil works	*Supervisão / Gerenciamento / Fiscalização - Projeto Construção / Obras Civis*
1627	Building maintenance or renovation	*Manutenção / Reforma Predial*
5380	Administrative support services	*Prestação de Serviços de Apoio Administrativo*
18430	Structural design of civil works	*Obras Civis - Cálculo Estrutural*
20060	Design and analysis of engineering projects	*Elaboração / Análise Projeto - Engenharia*
20591	Consulting and advisory services in architecture	*Consultoria e Assessoria - Arquitetura*
22225	Engineering services	*Serviço Engenharia*

Appendix 15: Items and values

procedure and item	value: estimated	value: contracted
020001 0001/2017 001	R$93.366,18	R$84.026,77
020001 0001/2017 002	R$374.603,30	R$166.466,67
020001 0001/2017 003	R$292.068,18	R$194.680,09
080002 0002/2017 001	R$1.145.390,00	R$893.404,20
080016 0019/2017 001	R$1.600.000,00	R$800.000,00
080016 0019/2017 002	R$50.000,00	R$45.000,00
080026 0001/2017 001	R$132.926,35	R$82.623,68
090003 0031/2017 001	R$48.584,53	R$9.300,00
090012 0001/2017 001	R$246.981,60	
090012 0006/2017 001	R$246.981,60	
090012 0023/2017 001	R$120.000,00	R$78.210,00
090012 0041/2017 001	R$112.616,04	R$51.000,00
090023 0029/2017 001	R$241.667,51	R$81.700,00
090023 0059/2017 001	R$242.693,15	R$124.999,72
090038 0004/2017 001	R$25.635,72	R$19.200,00
120196 0001/2017 001	R$599.500,00	R$382.812,50
152663 0015/2017 001	R$6.166,67	R$1.099,99
152663 0015/2017 002	R$18.000,00	R$6.999,99
152663 0015/2017 003	R$22.000,00	R$11.999,99
152663 0015/2017 023	R$3.333,33	R$2.575,99
152663 0015/2017 024	R$8.000,00	R$2.870,99
152663 0015/2017 025	R$9.500,00	R$2.352,99
153047 0019/2017 001	R$26.650,00	R$5.050,00
153047 0019/2017 002	R$31.750,00	R$5.050,00
153047 0019/2017 024	R$19.650,00	R$5.000,00
153052 0005/2017 018	R$1.150.000,00	R$713.000,00
153052 0005/2017 019	R$750.000,00	R$600.000,00
153052 0005/2017 020	R$450.000,00	R$360.000,00
153103 0024/2017 001	R$194.026,00	R$140.000,00
153167 0037/2017 001	R$205.366,40	R$144.180,00
153167 0042/2017 001	R$42.757,13	R$24.000,00
154046 0004/2017 001	R$261.571,04	R$158.124,13
154618 0015/2017 001	R$48.897,86	R$15.450,00
155008 0038/2017 003	R$115.665,00	R$8.250,00
155008 0038/2017 020	R$190.450,00	R$41.550,00
155124 0003/2017 001	R$220.704,00	R$187.598,40
158275 0014/2017 003	R$94.800,00	R$45.000,00
158275 0014/2017 004	R$230.500,00	R$85.000,00
158377 0040/2017 001	R$59.848,39	R$19.500,00
158377 0040/2017 002	R$33.850,84	R$17.500,00
158377 0040/2017 003	R$8.845,00	R$7.000,00
158377 0040/2017 004	R$18.250,18	R$11.000,00
158377 0040/2017 005	R$3.428,03	R$3.400,00
158377 0040/2017 006	R$8.762,39	R$7.200,00
158720 0004/2017 001	R$11.197.396,19	R$9.048.522,00
160036 0025/2017 001	R$68.123,02	R$46.199,99
160066 0013/2017 013	R$30.022,19	R$15.000,00

procedure and item	value: estimated	value: contracted
160066 0013/2017 014	R$4.254,59	R$3.579,80
160078 0001/2017 001	R$38.095,95	R$22.857,14
170010 0006/2017 001	R$143.654,32	R$131.000,00
170018 0003/2017 001	R$126.836,28	R$89.000,00
170088 0001/2017 001	R$677.199,03	R$377.798,24
170131 0022/2017 001	R$19.396,60	R$19.000,00
170134 0006/2017 001	R$53.602,64	R$18.000,00
170217 0007/2017 001	R$73.572,40	R$28.700,00
170217 0008/2017 001	R$51.081,25	R$45.000,00
170217 0009/2017 001	R$66.522,81	R$27.250,00
170217 0011/2017 001	R$48.769,17	R$25.200,00
170388 0001/2017 001	R$238.583,01	R$58.065,40
170516 0005/2017 001	R$52.324,28	R$39.000,00
170516 0008/2017 001	R$58.348,12	R$30.000,00
170516 0008/2017 002	R$54.086,24	R$30.000,00
179085 0098/2017 001	R$2.982.746,52	
179085 0112/2017 001	R$2.982.746,52	R$2.401.926,48
200035 0012/2017 001	R$49.984,00	R$17.500,00
200043 0017/2017 001	R$24.695,52	R$12.141,29
200108 0008/2017 001	R$55.032,23	R$25.000,00
200121 0009/2017 001	R$31.525,50	R$19.299,99
200207 0013/2017 001	R$23.175,60	R$13.278,43
250025 0007/2017 001	R$69.767,04	R$38.500,00
254445 0215/2017 001	R$682.808,74	
254445 0291/2017 001	R$682.808,74	R$600.000,00
255026 0006/2017 001	R$54.307,50	R$28.990,00
343003 0002/2017 001	R$137.728,14	R$96.590,66
343011 0003/2017 001	R$537.174,49	R$483.457,04
343034 0003/2017 001	R$299.300,00	R$70.000,00
343036 0002/2017 001	R$185.600,00	R$160.000,00
380941 0007/2017 001	R$668.836,73	R$167.900,00
380941 0007/2017 002	R$115.727,73	R$49.500,00
380941 0007/2017 003	R$99.286,23	R$48.500,00
380941 0007/2017 004	R$93.510,22	R$42.999,00
389086 0006/2017 001	R$47.000,00	R$20.300,00
400066 0001/2017 001	R$125.513,96	R$86.604,63
420001 0001/2017 001	R$149.193,07	R$73.500,00
443001 0001/2017 001	R$62.302,50	R$30.000,00
530001 0016/2017 016	R$661.663,92	R$456.361,80
765701 0007/2017 001	R$55.000,00	R$33.950,00
765705 0001/2018 001	R$129.425,66	R$76.361,14
787700 0006/2016 001	R$832.442,15	R$130.000,00
925138 0028/2017 001	R$1.647.695,43	R$1.644.182,75
925152 0002/2017 001	R$473.472,85	R$252.529,22
925387 0002/2017 001	R$13.152.300,53	R$7.726.491,15
925856 0049/2017 001	R$144.930,47	
925856 0147/2017 001	R$144.930,47	
925942 0059/2017 006	R$193.400,00	R$73.800,00
925942 0059/2017 007	R$286.600,00	R$137.800,00
925942 0059/2017 008	R$513.400,00	R$139.800,00

procedure and item	value: estimated	value: contracted
925942 0059/2017 009	R$306.900,00	R$110.700,00
925942 0059/2017 010	R$117.450,00	R$52.350,00
925942 0059/2017 012	R$86.650,00	R$34.950,00
925942 0059/2017 013	R$11.500,00	R$3.690,00
925942 0059/2017 014	R$32.350,00	R$14.950,00
926066 0006/2017 001	R$145.697,02	R$48.199,00
926195 0026/2017 001	R$321.333,33	R$249.112,35