IDA

INSTITUTE FOR DEFENSE ANALYSES

Competitiveness in the Services Sector

Laura M. Williams, Project Leader
Susan L. Rose, Project Leader
Andrew S. Rehwinkel

March 2010
Approved for public release;
distribution is unlimited.
IDA Paper P-4542
Log: H 09-001715

The Institute for Defense Analyses is a non-profit corporation that operates three federally funded research and development centers to provide objective analyses of national security issues, particularly those requiring scientific and technical expertise, and conduct related research on other national challenges.

About this Publication

This work was conducted by the Institute for Defense Analyses (IDA) under contract DASW01-04-C-0003, Task AH-7-2982, "Competitiveness in the Services Sector," for the Office of the Deputy Under Secretary of Defense (Industrial Policy). The views, opinions, and findings should not be construed as representing the official position of either the Department of Defense or the sponsoring organization.

Copyright Notice

© 2009, 2010 Institute for Defense Analyses, 4850 Mark Center Drive, Alexandria, Virginia 22311-1882 • (703) 845-2000.

This material may be reproduced by or for the U.S. Government pursuant to the copyright license under the clause at DFARS 252.227-7013 (NOV 95).

INSTITUTE FOR DEFENSE ANALYSES

IDA Paper P-4542

Competitiveness in the Services Sector

Laura M. Williams, Project Leader
Susan L. Rose, Project Leader
Andrew S. Rehwinkel

PREFACE

The Institute for Defense Analyses (IDA) prepared this paper for the Office of the Director, Industrial Policy, Office of the Under Secretary of Defense (Acquisition, Technology and Logistics), under a task titled "Competitiveness in the Services Sector." This paper investigates the reasons for single offers and sole source contracts.

Colin M. Doyle, Stanley A. Horowitz, and David M. Tate of IDA were the technical reviewers for this paper.

TABLE OF CONTENTS

FIGURES

TABLES

EXECUTIVE SUMMARY

The presumption established in the Federal Acquisition Regulations (FAR) is that federal contracts should be awarded on a competitive basis whenever possible and that competed contracts should be available to multiple offerors. This presumption applies to all Department of Defense (DOD) contracts for services. DOD supports vigorous competition for Federal Government contracts.

In a focus on the services sector, the data on competition raises some questions. In FY 2008 DOD committed approximately $200[1] billion in contracts for services. Over $28 billion of this total were competed contracts which attracted only a single offer. Moreover, nearly $26 billion in DOD service contracts were awarded sole source. Together, these two categories accounted for $54 billion in FY 2008, or over 25 percent of the total volume of DOD spending on service contracts in that year.

The DOD Office of Industrial Policy asked IDA to examine DOD contracts for services that are competed but that receive a single offer and DOD sole source contracts for services. Our task was to determine the circumstances and considerations under which DOD service sector contracts receive single offers or are awarded sole source. In particular, we were tasked to determine whether the prevalence of single offer and sole source contracts in DOD services represents an industrial base concern, such as a lack of qualified firms or significant barriers to entry.

SINGLE OFFERS - THE PROBLEM IS NOT AS LARGE AS IT SEEMS TO BE

Our baseline plan for this study was to do a thorough statistical analysis of the available data to test various explanations that have been offered for single offers on competed contracts and underlying reasons for sole source contracts. During the course of executing this plan, we found that one of our two main conclusions follows from a close examination of the data. This conclusion is that the prevalence of competed DOD

---

1 A $13.9 billion data error was discovered after the FY 2008 data set was frozen. Although the error results in an overstatement of services contracts and competed contracts with multiple offers, it does not qualitatively or substantively change our conclusions.

services contracts receiving a single offer is only about half as large as the data cited above appear to suggest.

The main reason for this has to do with the character of Multiple Award Indefinite Delivery Vehicle (IDV) task orders. An IDV contract does not specify the specific service or actual quantity required. Instead, it provides a quantity range or general description of required services. Actual awards under an IDV occur in two stages. The first stage is a competition to establish a pool of contractors qualified to provide services under the IDV. The data we examined indicate that there is virtually always competition at this stage and that typically several firms are selected. The second stage involves providing fair opportunity (e.g., competition) for all multiple award contract holders to compete for the task order, unless an exception to fair opportunity is approved. When fair opportunity is given, even if only one contract holder bids, the order is reported in the database as "Fair Opportunity Given" and is considered competitive. There were $10.9 billion in task orders under multiple award contracts that provided fair opportunity where a single bid was received in FY 2008. Although some may characterize the competition for an order that results in a single offer as not being an effective competition, we feel this is an incorrect characterization. The contractor first competed for the award of the multiple award IDV and competed again for the task order. Though only one bid may have been received for the task order, the benefits of competition are realized to the extent that contractor believes other multiple award contract holders will submit bids.

Broad Agency Announcements (BAAs) or Small Business Innovation Research solicitations (SBIRs) for RDT&E awards present a similar situation. We estimate that $3 billion in apparent RDT&E single offer contracts was in response to BAAs and SBIRs. Although BAAs and SBIRs are considered competitive solicitation procedures, they are a fundamentally different type of competition and often appear as single offer contracts in the data, regardless of the number of offers received.

As was noted above, in FY 2008, about $28 billion in contracts (including task orders) that DOD offered for competition appeared to have received a single offer. Of this total, about $14 billion was accounted for by contracting processes that involved some significant competition—$10.9 billion in Multiple Award IDVs and $3 billion in BAAs and SBIRs. Recognizing this adjustment reduces by half—to $14 billion—the competed contracts that received only one offer at any stage.

We attempted to examine statistically the main explanations for single offers that we found in previous studies and through discussions with contracting office personnel and contractors. Of the explanations for single offer contracts that we were able to analyze statistically, we found:

- Set-asides are not a cause of single offers. In fact, we found that Multiple Award IDV task order set-asides were less likely to receive a single offer than task orders that were not set-asides.
- Small contracts (less than $250 thousand) are more likely to receive single offers than large contracts (greater than $1 million).
- Contract structure (cost-plus or fixed price) correlates with single offers in some cases, but the direction of the relationship is not clear. We find it unlikely that contract structure is an important factor for single offers.

Additionally, although we were unable to quantitatively assess the effects, there are nonetheless some indications that allowing firms more time to prepare their bids may increase the number of offers, particularly on Multiple Award IDV task orders.

These largely negative findings have implications for discussions of whether DOD should act to reduce the prevalence of single offers. Each of the hypotheses we identified points at least generally towards a particular policy response. As noted, we were not able to test all of these. However, neither singly nor in combination did the ones we could test account for the data on single offers. Though various explanations may hold true for individual cases, we did not find a root cause or systemic issue driving the number of single offers. In particular, there does not appear to be a problem with the services industrial base. We found no evidence of a lack of qualified firms, and no barriers to entry except in a few isolated cases involving specialized skills (such as medical specialists or intelligence analysts) combined with other exacerbating factors such as geographical constraints.

SOLE SOURCE - DOD POLICIES AND PRACTICES RATHER THAN INDUSTRIAL BASE

In FY 2008, of the roughly $200 billion in DOD contracts for services, sole source contracts account for nearly $26 billion. In this study we investigated underlying causes, beyond the stated FAR exceptions, that may be drivers of the number of sole source contracts.

We found that the use of short-term contracts and modifications to fill the gap in services between the end of one contract and the beginning of the next is a significant source of sole source contracts. These bridge contracts, as they are called, are put in place

when a delay in the acquisition process prevents the award of a competitive contract until after the contract in place is due to terminate. Delays arise from various sources:

- Due to the requiring agency, such as changes to the requirements or not having the requirements documents prepared on schedule.
- Due to the contracting office, such as the discovery that the planned contract vehicle cannot be used or a problem at any of the several review and approval boards that constitute the process.
- Due to other sources, such as protests of the contract award.

To analyze this issue, we collected Justification and Approval (J&A) documents from the FedBizOpps Web site from March through September 2009. Of the sole source contracts for DOD services posted during this period, nearly one in four was a bridge contract.

The value of these short-term contracts appears to be small, about 10 percent of the total sole source J&As for those where we were able to obtain the contract values. However, the use of bridge contracts represents a potentially significant cost to the DOD attributable to process inefficiencies. This cost includes the costs of preparing and administering the bridge contracts or modifications at the requiring agency, the contracting office, and the contractor. Additionally, the use of bridge contracts and modifications adds to the workload for the limited DOD contracting workforce because they must be put in place and administered in addition to performing the eventual competition for the required services.

SOME POLICY IMPLICATIONS

The question that prompted this study was whether single offer and sole source contracts represent a lack of competition for DOD services. Of specific concern was that there may be problems with the industrial base.

What we found was that single offers on competed contracts probably do not indicate a problem. Of the $28 billion in apparent single offer contracts, half received some competition and we could find no clear systemic cause for the remaining half. Commonly suggested explanations, such as set-asides and contract structure, are not causes of single offers. Finally, there is no evidence of any issues, such as lack of qualified firms or barriers to entry that would indicate an industrial base problem.

For sole source contracts there does appear to be a problem, not with the industrial base or with competition, but with DOD practices and policies. Bridge contracts put in place due to acquisition process delays caused by requirements documents not having

been prepared in a timely manner, issues that arise during the contract review and approval process, or award protests, for example, cause services that were meant to be competed to be awarded sole source, at least in the short term. In the data we collected, nearly one in four sole source DOD service contracts was a bridge contract. Addressing process inefficiencies that cause competitive contract award delays could reduce the number of bridge contracts and save the DOD the cost of administering them.

I. INTRODUCTION

IDA was tasked in this study to investigate the level of competitiveness in contracts for services to the Department of Defense (DOD). Services are a significant part of both the Federal Government's and the DOD's budgets. Providing professional services to the Federal Government currently represents a larger market than selling hardware,[1] and the DOD is the largest Federal Government consumer of professional services,[2] spending roughly $200 billion[3] on services, including Research, Development, Test & Evaluation (RDT&E), in FY 2008.

Of the nearly $200 billion in contracts for DOD services in FY 2008, just over $155 billion was competed. At issue is the $28.4 billion in competed contracts that appear to have been awarded after receiving only one offer. Of the approximately $46.5 billion awarded without competition, there was $25.9 billion in DOD service contracts awarded sole source. The remaining $20.6 billion was awarded without competition under FAR exemptions other than sole source (e.g., international agreement, urgency, national security) and is outside the scope of this study.

This study was directed by the Office of the Director, Industrial Policy (IP), whose mission is:

> To sustain an environment that ensures the industrial base on which the DOD depends is reliable, cost-effective, and sufficient to meet DOD requirements. Specifically, Industrial Policy is responsible for ensuring that DOD policies, procedures, and actions: (1) stimulate and support vigorous competition and innovation in the industrial base supporting defense; and (2) establish and sustain cost-effective industrial and technological capabilities that assure military readiness and superiority.[4]

---

1 Berteau, Ben-Ari and Sanders, page x.

2 Ibid, page 6.

3 A $13.9 billion data error was discovered after the FY 2008 data set was frozen. Although the error results in an overstatement of services contracts and competed contracts with multiple offers, it does not qualitatively or substantively change our conclusions.

4 www.acq.osd.mil/ip, accessed 11-18-09.

In addition to being a cornerstone of the IP mission, the support of vigorous competition for the federal acquisition system is established in the Federal Acquisition Regulation (FAR). The presumption is that contracts should be competed whenever possible and that competed contracts should be open to multiple offerors and presumably, should receive multiple offers. Therefore, receiving a single offer on a competed contract is viewed as an anomaly, and the use of sole source contracts, while allowed under the FAR, should be as limited as possible.

In this study we investigate the principal sources of single offer and sole source contracts in various industry segments of the DOD services sector as defined by IP. We attempt to determine why DOD service sector contracts receive single offers or are awarded sole source. What are the circumstances and considerations? We ask these questions in hope that they lead to insights relevant to policy decisions. In particular, we have been asked to determine whether the prevalence of single offer and sole source contracts in DOD services represents an industrial base concern, such as a lack of qualified firms or significant barriers to entry. The context and data sources for single offers on competitive contracts and sole source awards are sufficiently different that they will be treated and analyzed separately in this work.

This paper describes the analyses that IDA performed on this task and the results that were obtained. The paper is organized as follows: Section II discusses the methodology used in the research, Section III provides the results of the analysis on sources of single offers on competed contracts, Section IV presents the results of our investigation into sources of sole source contracts, and Section V provides a summary of our results.

II. METHODOLOGY

A. HYPOTHESES

We used statistical techniques, applied to available data, to test each of several hypotheses that might account for single offers and sole source contracts. The set of hypotheses we examined was generated by a review of the pertinent literature and interviews with contracting office personnel and contractors.

We selected contracting offices to interview based on the following criteria: (1) the office was one of the top locations in terms of dollars or contract actions in a given industry segment or (2) it had a high percentage of single bids or sole source contracts compared with other offices working in the same industry segment. We selected at least one contracting office from each of the industry segments that had been identified by IP.

In addition to the contracting offices, we interviewed contractors from three trade organizations: the Tidewater Government Industry Council, TechAmerica, and the Coalition for Government Procurement. The Tidewater group primarily comprises small businesses, while TechAmerica and the Coalition for Government Procurement primarily comprise large firms.

We were unable to find a thorough systematic study or an established theory explaining the prevalence of single offers or sole source contracts. Existing studies in this area tend to be narrowly focused empirical studies and were somewhat contradictory in their conclusions. Instead, the literature review, which surveyed academic as well as government reports, and the interviews provided insight into the factors driving the number of bids on government contracts.

1. Single Offers

The following factors are discussed in terms of their possible effect on single offers.

a. Set-Asides

Conventional wisdom suggests set-aside contracts may be a deterrent to participation in government contracts. Set-aside contracts may only be awarded to firms that meet specific requirements. For example, small business set-asides are reserved for firms that are for-profit, independently owned and operated, and not dominant in their fields. MacManus (1991) found that firms with existing contracts considered set-asides a

deterrent to bidding on certain contracts, but firms without existing contracts did not consider them a deterrent. Denes (1997) found that set-asides did not significantly reduce competition or increase the cost of government contracts. Krasnokutskaya and Seim (2008) also found that preference programs—which are similar to set-asides—had little effect on the cost to the government. They found that preference programs increase the probability that small businesses bid on and win projects. Neither Denes nor Krasnokutskaya and Seim address whether larger firms were discouraged from bidding.

b. Contract Size

Both a 2009 Center for Strategic and International Studies (CSIS)[5] report on the professional services industrial base over a five year period and a 2008 Industrial Policy report[6] found that smaller contracts are more likely to receive single offers than larger contracts. In interviews with contracting officers and contractors, contract size was also mentioned as a possible reason for single offers. Two rationales are suggested. First, small contractors may not have the resources to bid for large contracts. Second, large fixed costs of bidding may deter firms from pursuing small contracts.

c. Contract Structure

The contract structure—the type of payment arrangements used by a contract—may affect bidding behavior. Different contract structures may result in different regulation regimes. A 2003 OUSD/IP paper indicated that cost-plus contracts may require special accounting software to meet reporting requirements, possibly deterring some firms from bidding on them.

Bajari and Tadelis (2001) show that contract structure may indicate the complexity of a project and may determine who bears the risk of changes to a project. For example, a complex project, such as a design-build, is more likely to incur changes. A cost-plus contract structure assigns the costs of such changes to the government, not the contractor. Fixed-price contracts place additional risk on the contractor to bear those costs and may lead some firms to pass on bidding for a project.

---

5 Berteau, Ben-Ari, & Sanders, February 2009, page xi.

6 Office of the Deputy Under Secretary of Defense, Industrial Policy. (July 2008) Competitive Services Industry: Services Body of Knowledge–FY 08 Updates.

d. Specifications

We found three studies that surveyed firms to learn what drives their decision to pursue or avoid government contracts (see Lamm (1988), MacManus (1991), and Randall (1997)). Lamm and Randall surveyed defense-related firms, while MacManus surveyed a wider variety of firms. Despite differences in the survey populations and changes to procurement policies over time, all three studies report similar issues with the government contracting process. Burdensome paperwork, poorly written specifications, and low profitability were in the top five of reported problems with the government procurement process in all three studies. Poorly written specifications were also cited as a problem in DOD Inspector General (IG) reports from 2001 and 2009, as well as a 2001 NASA IG report. In addition, specifications that are too vague or too narrow were commonly raised as an issue during our interviews with both contracting officers and contractors.

e. Geographic Constraints

The geographic location of a project may affect the number of bids received. Rural locations likely have fewer firms providing any particular service than urban locations simply because the customer base is smaller. Furthermore, large firms with a regional or national presence may avoid such projects as it may be difficult to persuade skilled personnel to relocate to remote areas that lack the amenities of larger communities.

f. Specialized Requirements

Specialization was mentioned as a factor affecting the number of offers in some industry segments. Highly specialized requirements, for example, for particular medical specialists; high levels of security clearance such as those required by intelligence analysis; or unique engineering skills required for aircraft flight test, may decrease the number of offers. The effect of specialized, or scarce, skills on the number of offers may be exacerbated in cases where additional restrictions, such as geographical location, are required as well. In the medical segment, medical treatment facilities located in smaller towns were mentioned as having particular difficulty in finding bidders for their medical practitioners. Particularly in the medical segment, limits on compensation may also be a factor when combined with specialized requirements. For example, West Point, New York, may face difficulty filling medical positions due to competition for medical services from New York City.

g. Time to Prepare a Response

The amount of time given the contractors to prepare their bids was a factor raised both in our interviews and in the literature. Stott and Zlomislic (2004) found that increasing the time allowed for bid preparation had a significant effect on receiving multiple offers. A 2004 GAO report and DOD IG reports from 2001 and 2009 also cite lack of time for bid preparation as a possible cause of single offers on some contracts.

h. Presence of an Incumbent

The presence of an incumbent may deter other firms from bidding on a project. During our interviews, contractors stated that they attempt to learn if there is an incumbent on a project and whether the customer is satisfied with the incumbent's performance. In such circumstances firms may believe their bids are unlikely to be successful, as the incumbent may possess additional insight into the customer's needs and wants for a given project.

2. Sole Source Contracts

The following two hypotheses have been proposed as possible causes of sole source contracts. Recall that we were asked to investigate causes that underlie or go beyond the FAR exceptions.

a. Pressure to Use Sole Source

During the interviews, contracting officers reported that their customers, the requiring agencies, are reluctant to change contractors and that their first instinct is to use sole source contracts. Additionally, DOD IG reports from 2001 and 2009 on Multiple Award contracts for services discuss program office pressure to use the sole source option on Multiple Award task orders.

b. Bridge Contracts

There was a consensus among the contracting offices that bridge contracts are a significant source of sole source contracts. A bridge contract—a short-term contract to cover the gap between the end of one contract and the beginning of the next—is written when the competition or the award for the new contract has been delayed. Delays can come from the requiring agency, such as delays in preparing the requirements documents or a change in requirements; from the contracting office, such as the inability to use an

existing contract vehicle or an issue during any of the several review boards that constitute the process; or from other sources, such as protests.

These hypotheses were assembled to provide direction for the data analyses portion of the study. Notably absent from this list are the industrial base issues, such as lack of qualified firms or significant barriers to entry that were the basis for the IP concern. We found no evidence that the prevalence of single offer contracts or sole source awards was due to industrial base issues, with the exception of a few limited cases requiring specialized skills or facilities as noted above.

B. DATA SOURCES

Statistical analyses were performed using two primary data sources: the FY 2008 Federal Procurement Data System-Next Generation (FPDS-NG) database, supplied by the sponsor, and a database containing Justification and Approvals (J&As) for not-competed contracts that we created from publicly available data on the FedBizOpps Web site.

1. FPDS-NG FY 2008 Data Set

The FPDS-NG database records all contract actions greater than $3,000. Initial contract actions receive a contract number. Contract actions that alter an existing contract are assigned a modification number, while retaining the original contract number. Contract award types include task orders, purchase orders, and definitive contracts.

- *Task orders* are orders written against single or multiple award Indefinite Delivery Vehicles (IDVs) that act as large master contracts. In the database, these task orders automatically inherit the terms of the master contract. Each master contract can have multiple task orders written against it.
- *Purchase orders* are used for items purchased using simplified acquisition procedures and are typically for less than $100,000.[7]
- *Definitive contract awards* are standard individual contracts.

The FPDS-NG database records information about each contract action. Of particular interest to this study were the contract value fields (Dollars Obligated, Current Contract Value, and Base and All Options Value), the type of contract field, the

---

[7] The limit in FY 2008 was typically $5,000,000 for purchases of commercially available supplies and services, but can be up to $11,000,000 in certain national security areas. The limit for commercially available supplies and services has increased to $5,500,000 See https://www.acquisition.gov/far/html/Subpart%2013_3.html . Accessed on April 24, 2010.

competition information (Extent Competed, Reason Not Competed, and Number of Offers Received), as well as the Statutory Exceptions to Fair Opportunity in the case of Multiple Award IDVs. However, it is important to note that the FPDS-NG database does not contain data such as the amount of time allowed for the offers to be submitted or the existence of an incumbent contractor, which would have been useful for this study.

The FPDS-NG database is a live database, meaning that it can be updated and changes to past entries made at any time. In fact, changes to contract actions in any fiscal year can be made well past the fiscal year end. To ensure consistent results for queries regarding these contracts, we were provided a version of the FY 2008 FPDS-NG data containing DOD contract actions frozen as of 15 January 2009.[8]

Appendix A details the methodology used to categorize competed, not-competed, and sole source contracts, along with purchase order, definitive contract, and multiple award and single award IDV task order award types. The details concerning how we determined contract value are also provided in Appendix A.

2. Justifications and Approvals Database

For our research into significant causes of sole source contracts, we collected the J&As posted on the FedBizOpps Web site between 1 March 2009 and 30 September 2009. The J&As provide not only which Federal Acquisition Regulations (FAR) exception is applied, but also supporting documents explaining the use of the exception. For example, for some sole source contracts, the FPDS-NG database would specify Only One Source as the FAR exception. The additional documentation might state that a short-term contract to an incumbent was made because the replacement contract had not yet been competed. We used this additional detail regarding the FAR exceptions to classify the not-competed contracts as bridge contracts (or as not).

C. NEXT STEPS

As described, our original plan was to assemble a set of working hypotheses that we would then test using statistical methods with available data. As is often the case, a large portion of the study time was spent identifying, assembling and understanding the data, and we were unfortunately unable to obtain the necessary data to sufficiently analyze

---

8 A $13.9 billion data error was discovered after the FY 2008 data set was frozen. Although the error results in an overstatement of services contracts and competed contracts with multiple offers, it does not qualitatively or substantively change our conclusions.

some of the theories. The results of our investigations, including some additional avenues of inquiry discovered during the analysis, are presented in Sections III, for single offers, and IV for sole source awards.

III. SINGLE OFFER RESULTS

A. SCOPE OF THE SINGLE OFFER PROBLEM

Using the 15 January 2009 snapshot of the FPDS-NG database for FY 2008 contract actions, we find that of the $155.3 billion in competed contracts, $28.4 billion, over 18 percent, appears to have been awarded after receiving a single offer (see Figure 1). Unless otherwise noted, by "competed contract dollars" we mean the total dollars obligated on the original contract, plus the contract modifications. This is the standard method of reporting contract dollars used by IP. Appendix A provides the details for using the various contract value fields (Base and All Options, Current Contract Value, and Dollars Obligated) to determine the competed contract values for this study. For the single offer analysis, all not-competed contracts under any of the FAR exceptions were excluded. For a description of how the contracts were categorized as competed, not-competed, sole source, and by award type, see Appendix A.

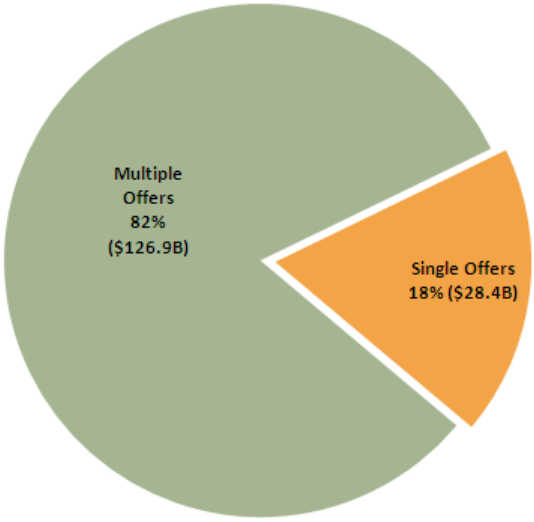

Figure 1. FY 2008 Competed Contract Dollars, Multiple and Single Offers

IP classifies services into various industry segments. Figure 2 shows the relative shares of competed contract dollars by industry segment. Construction-Related (CR) contracts receive the largest share of competed contract dollars, with Management Support, Professional and Administrative (MSPA) and RDT&E receiving significant shares as well.

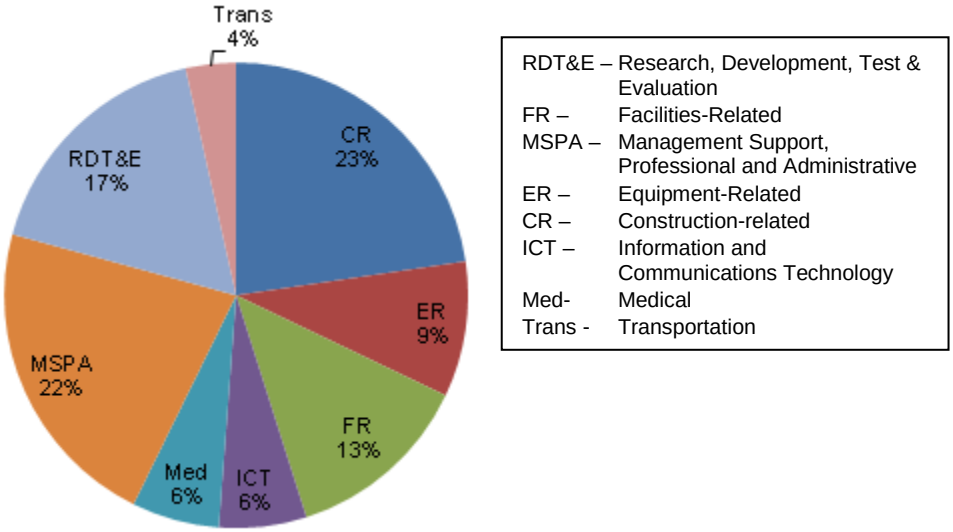

Figure 2. FY 2008 Competed Contract Dollars by Industry Segment

Figure 3 shows the relative shares of single offers on competed contracts by industry segment. For single offers, MSPA and RDT&E take over the largest shares, with Equipment-Related (ER) as the third largest segment. CR falls to the sixth largest share of single offer dollars.

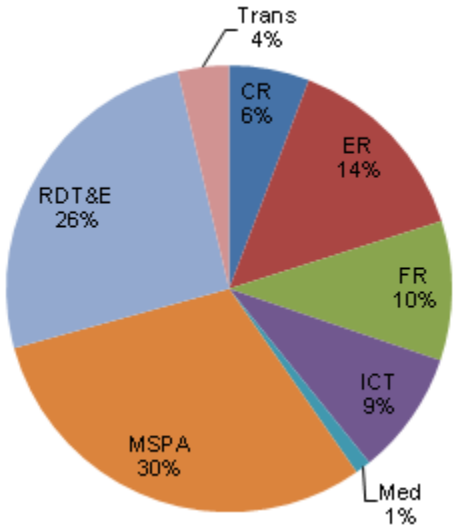

Figure 3. FY 2008 Single Offer Contract Dollars by Industry Segment

B. SINGLE OFFERS IN RDT&E

From Table 1, we see that RDT&E accounts for close to 26 percent of FY 2008 competed dollars awarded after receiving a single offer. A closer look at the data shows

that RDT&E is an obvious outlier with respect to single offers on definitive contracts, accounting for over 50 percent of all single offers. However, we found upon closer examination that definitive contracts in RDT&E are frequently Broad Agency Announcements (BAA) and Small Business Innovation Research (SBIR) contracts. These contracts often appear as if they were competed contracts receiving a single offer in the FPDS-NG database, regardless of the number of offers received.

Table 1. Single Offer Contracts by Award Type and Industry Segment (Millions of Dollars)

Industry Segment	Purchase Orders	Single Award Task Orders	Multiple Award Task Orders[a]	Definitive Contracts	Total	Percent of Total
CR	$9.3	$91.3	$574.9	$975.4	$1,650.9	5.81 %
ER	$129.4	$2,399.0	$779.7	$747.9	$4,056.0	14.28 %
FR	$92.7	$664.7	$1,067.5	$1,043.1	$2,868.1	10.10 %
ICT	$80.2	$515.7	$1,807.9	$150.1	$2,553.8	8.99 %
Med	$50.4	$102.9	$123.0	$45.0	$321.2	1.13 %
MSPA	$122.0	$2,474.6	$4,928.3	$1,112.5	$8,637.3	30.41 %
RDT&E	$25.9	$1,732.7	$737.0	$4,768.0	$7,263.5	25.58 %
Trans	$41.5	$75.9	$852.8	$79.7	$1,049.8	3.70 %
Total	$551.4	$8,056.6	$10,870.9	$8,921.7	$28,400.6	

[a] Multiple Award Task Orders that received a single offer under Fair Opportunity

BAAs differ from a standard request for proposal in that they (1) are focused on advancing the state of the art or increasing knowledge and understanding, rather than on a specific system or solution, and (2) are defined by a statement of the problem rather than a statement of work. Each proposal presents a unique solution to a problem and is evaluated on its own absolute merits rather than its merits relative to the other proposals received. A single BAA could receive 100 proposals and make two awards or could receive 20 proposals and make 20 awards. BAAs may remain open for up to a year, and firms may make proposals and receive awards throughout that time.[9] SBIRs are similar to BAAs, but have additional requirements: the firm must be a for-profit small business with 500 or fewer employees, the work must be performed in the United States, and the principal investigator must be employed at least half time by the proposing firm.[10] In

9 http://www.darpa.mil/cmo/baa.html. Accessed 10/09/2009.

10 http://www.acq.osd.mil/osbp/sbir/overview/index.htm. Accessed 11/18/09.

addition, SBIR requests for proposals usually have a fixed ending date, after which all proposals are evaluated.

Both BAAs and SBIRs are considered competitive solicitation procedures, and the FPDS-NG data dictionary directs contracting offices to code these procedures as full and open competition.[11] Almost all the contracting offices we spoke to said that they enter the number of offers for successful BAA proposals as "1," regardless of the number of proposals received.[12] The results for SBIRs were more mixed; some offices said they enter the total number of proposals received, and others said they enter a "1," for all research proposals. As a result, most BAAs and many SBIRs appear in the FPDS-NG database to have received a single offer, whether or not multiple proposals were submitted.

Because BAAs and SBIRs represent a fundamentally different type of competition from the standard definitive contracts, we believe that they should not be counted as competed actions receiving a single offer. Unfortunately, there is currently no method for separating BAA records in FPDS-NG from other definitive contract actions in RDT&E. For SBIRs, some of the contract descriptions state SBIR Phase I or SBIR Phase II, but most do not. Instead, the contract documents must be examined individually.

To determine the portion of the apparent single offer RDT&E contracts that are actually BAAs or SBIRs, we asked nine contracting offices to identify whether their single offer contracts in FY 2008 were actually BAAs or SBIRs.[13] For this effort, we did not perform a scientific sampling; we focused instead on contracting offices with the highest volume and value for RDT&E definitive contracts.

The results are surprising. Based on the responses of the contracting offices surveyed, BAAs and SBIRs accounted for 69 percent of the single offer RDT&E definitive contracts issued in FY 2008 and 62 percent of the contract value attributed to single offer definitive contracts. Table 2 shows the detailed breakout of BAAs and SBIRs for each of the contracting offices that categorized their contracts.

---

11 See page 102 of the FPDS-NG Data Dictionary, Version 1.3.

12 One office said they entered "999" as the number of offers received for BAAs, but the rest said "1."

13 We provided the offices with lists of the initial contracts. We excluded the modifications to reduce the size of the lists.

Table 2. BAAs and SBIRs Identified by Contracting Offices (Millions of Dollars)

Contracting Office	Single Bid Contracts	Total Dollars	BAA Contracts	Percent BAAs	BAA Dollars	Percent BAA Dollars	BAA & SBIR Contracts	Percent BAA & SBIR Contracts	BAA & SBIR Dollars	Percent BAA & SBIR Dollars
FA8750	81	$49.2	56	69.14 %	$39.9	81.10 %	56	69.14 %	$39.9	81.10 %
N00014	113	$111.5	67	59.29 %	$62.2	55.81 %	89	78.76 %	$89.7	80.46 %
W91CRB	60	$27.8	40	66.67 %	$20.8	74.82 %	57	95.00 %	$25.6	91.92 %
W31P4Q	160	$35.5	37	23.13 %	$10.5	29.51 %	37	23.13 %	$10.5	29.51 %
W9113M	66	$120.4	3	4.55 %	$3.7	3.10 %	3	4.55 %	$3.7	3.10 %
W15P7T	147	$99.8	82	55.78 %	$16.1	16.14 %	145	98.64 %	$98.8	99.02 %
W912HZ	65	$18.7	51	78.46 %	$16.0	85.60 %	61	93.85 %	$17.2	92.13 %
W15QKN	47	$48.1	2	4.26 %	$2.0	4.11 %	41	87.23 %	$18.6	38.65 %
W911QY	59	$40.2	44	74.58 %	$38.2	94.93 %	59	100.00 %	$40.2	100.00 %
Total	798	$551.2	382	47.87 %	$209.4	37.99 %	548	68.67 %	$344.2	62.45 %

Our sample represented 11.5 percent of the total value of single offer definitive contracts in RDT&E.[14] This is a large enough sample that we are comfortable assuming that the proportion of remaining RDT&E single offer definitive contracts dollars that are actually BAAs or SBIRS is also close to 62 percent (totaling about $3 billion). Based on this estimate for the proportion of BAAs and SBIRs, RDT&E accounts for $4.3 billion (17 percent) of all single offer contract dollars rather than $7.3 billion (26 percent). Removing BAAs and SBIRs from the total pool of single offer contracts reduces the total dollar value of single offer contracts to $25.4 billion, as shown in Figure 4.

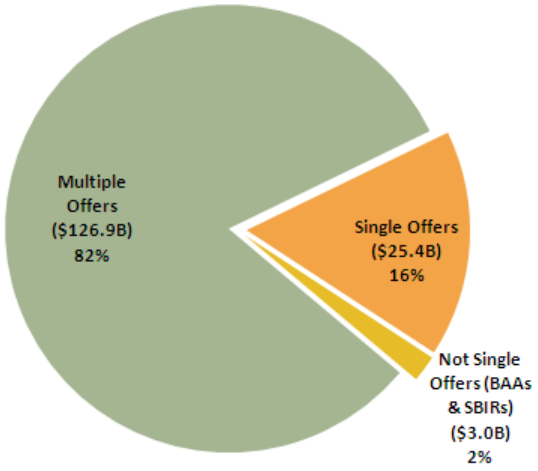

Figure 4. FY 2008 Single Offer Contract Dollars—Excluding BAAs and SBIRs

Our sample from the contracting offices allows us to estimate the proportion and dollar value of BAAs and SBIRs; however, it does not allow us to identify such contracts in the FPDS-NG data. As a result, we excluded RDT&E definitive contracts from our statistical analyses below. Additional research into this area would be facilitated by the ability to reliably identify BAAs and SBIRs in the FPDS-NG database.

C. AWARD TYPE AND SINGLE OFFERS

Although not raised as a factor in either the literature review or the interviews, award type turns out to be a predominant factor affecting the total value of competed contracts receiving a single offer. As discussed above, the DOD uses three primary contracting vehicles (purchase orders, task orders, and definitive contracts) to contract for

[14] This is the total value of the contracts we provided, including modifications.

services. Each type of award places different requirements on the contracting officers with regard to competition and the parameters of the acquisition:

- *Purchase orders* are used for items purchased using simplified acquisition procedures and are typically for less than $100,000.[15]
- *Task orders* are orders written against established Multiple Award or Single Award Indefinite Delivery Vehicles (IDVs). IDVs allow the government to purchase goods or services on an as-needed basis through the issuance of task orders.
- *Definitive contract awards* are standard individual contracts.

An IDV contract does not specify the actual quantity or specific service required. Instead, it provides a quantity range or general description of required services. Actual quantities and detailed service requirements are specified in the subsequent task orders. The IDV establishes qualified sources of the goods or services. In a Single Award IDV, all the services will be purchased from a single contractor, with the orders placed as needed. A Multiple Award IDV establishes a pool of qualified contractors. When the government issues a task order for services, those qualified contractors compete to provide the service.

As shown in Figure 5, purchase order contracts account for only 1 percent of the total competed contract dollars. Single Award IDV task orders represent 30 percent, Multiple Award IDV task orders are 23 percent, and definitive contracts account for 46 percent.

---

15 The limit in FY 2008 was typically $5,000,000 for purchases of commercially available supplies and services, but can be up to $11,000,000 in certain national security areas. The limit for commercially available supplies and services has increased to $5,500,000 See https://www.acquisition.gov/far/html/Subpart%2013_3.html . Accessed on April 24, 2010.

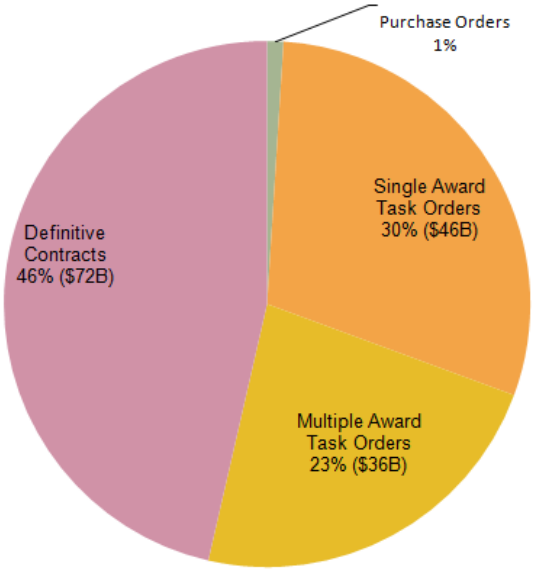

Figure 5. FY 2008 Competed Contract Dollars by Award Type

1. Categorizing IDV Task Orders as Single versus Multiple Offer

It is important for the purposes of this study to distinguish between Single Award and Multiple Award IDV task orders. In a Multiple Award IDV, the master IDV contract competition had multiple offers (by definition), and multiple firms were selected. These firms are exclusively allowed to compete on the task orders that are issued over the course of the contract. If only one of the selected firms bids on a task order, the value of that task order is counted as a single offer contract.

For Single Award IDVs, the master IDV contract competition may have had one or many offers. One firm is selected to perform the work specified in the task orders that are issued over the course of the contract. In this case, the value of all the task orders on the contract are counted as single offer if the master IDV contract competition received a single offer.

Determining whether a particular task order belongs to a Single or Multiple Award IDV is complicated by the fact that IDV contracts tend to run over several years. The FPDS-NG database snapshot used in this study contains many IDV task orders whose master IDV competitions occurred in previous years. Previous-year master IDV contracts are not included in the data we used. (For details on how we determine whether a task order originates from a Single Award or Multiple Award IDV and whether or not it was a single offer, see Appendix A.)

When looking at the value of single offer contract dollars, shown in Figure 6, IDV task orders make up a larger proportion than expected based on their prevalence in the total competed dollars pool. Multiple Award IDV task orders account for 23 percent of all competed contracts but 43 percent of single offers. By contrast, definitive contracts account for 46 percent of competed contracts but, after excluding BAAs and SBIRs, just 23 percent of single offers. Single Award IDV task orders fall in between—accounting for 32 percent of single offers and 30 percent of total competed dollars. Purchase orders account for only 2 percent of competed contract dollars receiving a single offer and will not be analyzed further in this study.

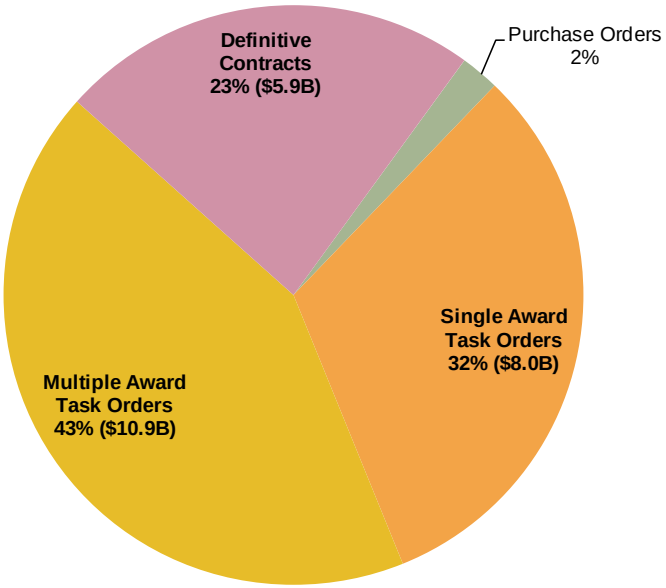

Figure 6. FY 2008 Single Offer Contract Dollars by Award Type (Excludes BAAs and SBIRs)

2. Effect of Multiple Award IDV Task Orders on Single Offers

We see that Multiple Award task orders are disproportionately responsible for single offers. We believe, however, that Multiple Award IDV task orders that receive a single offer do receive a level of competition. The competition for the master IDV contract received multiple offers, and multiple qualified contractors were selected to supply the services specified in the task orders. The second stage provides fair opportunity for all multiple award contract holders to compete for the task order unless an exception to fair opportunity is approved. Individual firms know that their competitors are qualified, but do not know if they will bid on the task orders. The threat of other bids prevents an individual firm from bidding as a monopolist. Thus, to the extent that firms

believe there will be multiple bidders on the task orders, the benefits of competition are conferred from the IDV competition to the task order competition even if only one offer is received.

Single offers on Multiple Awards at the task order level are not a new phenomenon. Both the Government Accountability Office (GAO) and the DOD IG have noted a percentage of single offers on Multiple Award task orders. A 2001 IG report found that only 69 percent of competed task orders received multiple bids.[16]

FAR revisions in 2000 and 2002 were designed to increase the level of competition on task orders.[17] However, single offers at the task order level persist. A 2004 GAO report found that only 50 percent of competed task orders received multiple bids.[18] The 2009 IG report on the Seaport Enhanced Program found inadequate competition on task orders. The report finds that requests for proposals did not allow sufficient time for firms to prepare bids.

Across all the reports, a few issues are repeatedly raised. Task orders are frequently awarded as exceptions to fair opportunity without the required documentation,[19] specifications are poorly written,[20] many competed task orders do not provide adequate time for firms to prepare bids,[21] and many task orders suffer from a lack of acquisition planning.[22] These factors could reduce the initial competition's impact on competition for task orders, but we could not quantitatively evaluate the effect with the available data.

D. OTHER FACTORS

As described in Section II, we started this study with a literature review and interviews with several contracting offices and contractor groups. Based on this research, we identified several areas of investigation for the causes of single offers. We then

---

16 Report No. D-2001-189, page ii.

17 The 2000 revisions were based on section 804 of the National Defense Authorization Act for Fiscal Year 2000. The 2002 revisions were based on the National Defense Authorization Act for Fiscal Year 2002. See Wong (2006) for more details.

18 GAO-04-874, page 6. The GAO report used a randomly selected sample of just 74 task orders, 34 of which were not competed. Fifteen of the 40 available for competition received 2 or more bids.

19 See IG Report 99-116, NASA IG Report IG-01-040, IG Report D-2009-082, GAO-03-983, GAO-04-874, IG Report D-2001-189.

20 See IG Reports D-2009-082, 99-116, NASA IG Report IG-01-040.

21 See IG Report D-2009-082, GAO-04-874, IG report D-2001-189.

22 See GAO-03-983 and IG Report D-2009-082, NASA IG Report IG-01-040.

examined each of the identified hypotheses to determine if it is, in fact, a source of single offers. In this section, we provide the results of our investigation into the factors affecting single offers. For several of the factors raised, such as the presence of an incumbent contractor, the time allowed for the contractors to respond to the RFP, or the effect of specialization and geography, we were unable to access the data necessary to perform the analysis. See Section II for a more detailed discussion of these factors.

Of the hypotheses we collected during the literature review and interview phase of the study, only three were able to be statistically analyzed with the data we obtained. Based on our findings that the proportion of single offers is affected by award type, we ran the tests for each award type and industry segment. The detailed results of the statistical analyses are provided in Appendix B.

Single Award IDV task orders present a special difficulty for this type of analysis. Bidding occurs on the original IDV contract, with the orders placed as needed. Since firms bid on the master IDV contract on the basis of the expected total value of the contract without knowing the actual number or size of the individual task orders, we could not logically draw inferences about the relationship between task order size and single offers, or the number of task orders and set-asides or contract structure. Therefore, Single Award IDV task orders are excluded from the following analyses.

1. Contract Size

In this section, we show our analysis of the effect that contract size has on the proportion of single offers for each industry segment and award type. In interviews with contracting officers and contractors, contract size was mentioned as a possible reason for single offers; the rationale is that small contractors may not have the resources to bid for large contracts, and large firms may choose to pass on small contracts due to fixed costs of bidding.

We are interested in whether the chance of receiving a single offer depends on the expected contract size at the time of the bid. We measured expected contract size using the Base and All Options value of the new contracts, excluding modifications.

We used a chi-squared test, a standard test for statistical significance in categorical data. A complete description of the statistical tests can be found in Appendix B. Table 3 summarizes the results of the tests. The statistical tests found a relationship between contract size and the proportion of single offers in nearly every award type and industry segment combination. The exceptions are Multiple Award IDV task orders for RDT&E and definitive contracts for Transportation (Trans). In the table, “Related” indicates that

single offers and contract size are statistically related, and "Not Related" indicates that we cannot reject the hypothesis that they are unrelated. While this test tells us that single offers are related to contract size, it does not tell us the nature of the relationship.

Table 3. Summary Results of Statistical Tests of Contract Size Versus Single Offers

Industry Segment	Definitive Contracts	Multiple Award Task Orders
Construction-Related (CR)	Related	Related
Equipment-Related (ER)	Related	Related
Facilities-Related (FR)	Related	Related
Information & Communications Technology (ICT)	Related	Related
Medical (Med)	Related	Related
Management Support, Professional & Administrative (MSPA)	Related	Related
Research, Development, Test & Evaluation (RDT&E)	NA	Not Related
Transportation (Trans)	Not Related	Related

Note: We have excluded definitive RDT&E contracts from this analysis because many of the definitive contracts are BAAs and SBIRs, and we cannot identify them in the data.

Table 4 shows the details of the statistical results for definitive contracts in the Management Support, Professional and Administrative (MSPA) industry segment. The p-value in Table 4 indicates the probability that single and multiple offers have the same distribution based on the calculated chi-squared value. In this case, the p-value indicates that it is extremely unlikely (probability = 0) that single offer contracts have the same distribution of size as multiple offer contracts. For this industry segment, we see a higher percentage of single offers in small contracts (less than $250,000) than in large contracts (greater than $1 million). The statistical results for the remaining industry segments can be found in Appendix B.

Table 4. Statistical Test of Relationship between Single Offers and Contract Size for Definitive MSPA Contracts

Management Support, Professional and Administrative	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	163	62	21	18	85	349
	63.42 %	55.36 %	38.18 %	58.06 %	41.67 %	52.96 %
Multiple Offers	94	50	34	13	119	310
	36.58 %	44.64 %	61.82 %	41.94 %	58.33 %	47.04 %
Total	257	112	55	31	204	659
Chi-Squared	27.144					
P	0.000					

Summarizing over the industry segments, we found that small contracts, such as those for less than $250,000, consistently receive a higher percentage of single offers than multiple offers, and large contracts, such as those for more than $1 million, consistently received a lower percentage of single offers than expected based on the prevalence of large contracts in the total population. This result is supported by the 2009 CSIS report on the federal professional services industrial base over a five year period[23] and the 2008 Industrial Policy report on the competitive services industry,[24] both of which found that large value contracts were more likely to receive at least two bids than smaller value contracts.

These results may suggest that there is a fixed cost to contractors of preparing an offer, making smaller contracts appear less attractive to firms with limited bid and proposal funds available.

2. Set-Asides

The use of set-asides has been raised as a possible explanation for single offers since they restrict the set of firms allowed to bid on such contracts. As stated in Section II, the literature on set-asides is mixed. For example, MacManus (1991) lists set-asides as one reason firms are reluctant to do business with the government, but Krasnotkutskaya and Seim (2008) show that preference programs—which are similar to set-asides—increase the participation of some firms. Thus, the overall effect of set-asides on competition is unclear.

The FPDS-NG database contains a field named Type of Set-Aside. We used this field to test whether single and multiple offers had different distributions on contracts that were set-asides versus those that were not. There are several different types of set-asides, but the most commonly used are Small Business Set-Asides, for firms that are for-profit, independently owned and operated, and not dominant in their fields and 8A Set-Asides, for small businesses owned by economically or socially disadvantaged individuals. The maximum number of employees and annual revenues allowed to be considered a small business depends on the product or service provided.[25] Some contracts are set-asides for

---

23 (Berteau, Ben-Ari, & Sanders, February 2009) page xi.

24 Office of the Deputy Under Secretary of Defense, Industrial Policy. (July 2008). Competitive Services Industry: Services Body of Knowledge–FY 08 Updates.

25 U.S. Small Business Administration Web site: http://www.sba.gov/aboutsba/sbaprograms/8abd/faqs/index.html. Accessed 12/1/2009.

more specific groups such as service-disabled-veteran-owned businesses. Apart from small business set-asides, there are very few contracts in each of the set-aside categories; therefore we have consolidated the set-aside categories for this analysis.

As with the contract size, we focused on the original contracts, excluding the modifications. We tested whether the single offers were related to set-asides and non-set-asides by award type and industry segment. Table 5 provides a summary of the results (the complete results along with a detailed description of the methodology used can be found in Appendix B). In the table, "Related" indicates that the single offers and set-asides are statistically related. That is, it is statistically unlikely that the number of offers and set-asides are unrelated. "Not Related" indicates we cannot reject the null hypothesis of no statistical relationship between single offers and set-asides.

Table 5. Summary of Statistical Tests for Single Offers and Set-Asides

Industry Segment	Definitive Contracts	Multiple Award Task Orders
Construction-Related (CR)	Related (+)	Not Related
Equipment-Related (ER)	Not Related	Not Related
Facilities-Related (FR)	Not Related	Related (-)
Information & Communications Technology (ICT)	Not Related	Related (-)
Medical (Med)	Not Related	Related (-)
Management Support, Professional & Administrative (MSPA)	Related (-)	Related (-)
Research, Development, Test & Evaluation (RDT&E)	N/A	Related (-)
Transportation (Trans)	Not Related	Related (-)

\+ Percentage of single offers is higher under set-asides.
\- Percentage of single offers is lower under set-asides.
Note: We have excluded definitive RDT&E contracts from this analysis because many of the definitive contracts are BAAs and SBIRs, and we cannot identify them in the data.

According to these results, set-asides are statistically related to single offers for Multiple Award IDV task orders in all but two of the industry segments (Construction-Related (CR) and Equipment-Related (ER)). For those industry segments found to be related, Multiple Award IDV task order set-asides are less likely to receive a single offer. For definitive contracts, set-asides were found to be statistically related to single offers in two industry segments (Construction-Related (CR) and Management Support, Professional and Administrative (MSPA)). Furthermore, the direction of the relationship is unclear for definitive contracts: the percentage of single offers is higher under set-asides in Construction-Related, but lower in MSPA.

We show the detailed results for MSPA, the industry segment with the largest proportion of competed contracts in Table 6. As in the previous section, we use a chi-squared test, and the p-value indicates the probability that single and multiple offers share

the same distribution. As Table 5 shows, we can reject the hypothesis that there is no relationship between single offers and set-asides for MSPA, but these results should not be read as implying that set-asides cause single offers. As shown in Table 6, set-asides have a much smaller percentage of single offers than do non-set-asides for MSPA contracts. Only 32 percent of definitive contract set-asides are single offers compared with 63 percent of non-set-asides. Single offers occur on 33 percent of Multiple Award IDV set-aside task orders and 55 percent of Multiple Award IDV non-set-aside task orders. The statistical results for the remaining industry segments are provided in Appendix B.

We conclude from these results that set-asides do not cause single offers. In fact, single offers are less likely on set-aside Multiple Award task orders and MSPA definitive contracts than on non-set-asides.

Table 6. MSPA Statistical Tests for Single Offers and Set-Asides by Award Type

	Definitive Contracts		Multiple Award Task Orders	
Bids	No Set-Aside	Set-Aside	No Set-Aside	Set-Aside
Single Offer	280	69	3,111	408
	63.49 %	31.65 %	54.78 %	33.55 %
Multiple Offers	161	149	2,568	808
	36.51 %	68.35 %	45.22 %	66.45 %
Total	441	218	5,679	1,216
Chi-Squared(1)	59.3688		180.6100	
P	0.000		0.000	

3. Contract Structure–Cost-Plus and Fixed Price

The contract structure—the type of payment arrangements used by a contract—may affect bidding behavior. The contract structure may determine the regulatory regime faced by a contractor. Cost-plus contracts may require special accounting software to meet regulations.[26] Contract structure may also determine the risk faced by a contractor. Fixed-price contracts confer more risk to the contractor and may lead some firms to pass on bidding for a project.

The FPDS-NG database contains a field labeled Type of Contract Pricing, which records the payment type of the contract. There are 16 different types of contract pricing

[26] Office of the Deputy Under Secretary of Defense, Industrial Policy, February 2003.

arrangements listed in the FPDS-NG data dictionary. They range from Fixed Price to Cost-Plus to Labor Hours as well as several codes for combinations of the different pricing arrangements. We consolidated the various arrangements into Fixed Price and Cost-Plus categories and excluded the combination codes, as they represent a small portion of the total. Appendix B provides the category definitions. We tested for a relationship between the type of contract pricing and single offers for each award type and industry segment. Because there are few Cost-Plus contracts, we used a Fisher's exact test to test the relationship. This is similar to the chi-squared test, but allows for greater accuracy when the data is highly asymmetric. See Appendix B for a complete description of the test.

Table 7. Summary of Statistical Test of Relationship between Single Offers and Payment Arrangements

Industry Segment	Definitive Contracts	Multiple Award Task Orders
Construction-Related (CR)	Not Related	Related (-)
Equipment-Related (ER)	Related (+)	Related (-)
Facilities-Related (FR)	Related (+)	Not Related
Information & Communications Technology (ICT)	Not Related	Not Related
Medical (Med)	NA	Not Related
Management Support, Professional & Administrative (MSPA)	Related (+)	Related (-)
Research, Development, Test & Evaluation (RDT&E)	NA	Related (+)
Transportation (Trans)	Not Related	Not Related

\+ Percentage of single offers is higher under cost-plus contracts.
\- Percentage of single offers is lower under cost-plus contracts.
Note: We have excluded definitive RDT&E contracts from this analysis because many of the definitive contracts are BAAs and SBIRs and we cannot identify them in the data. We also excluded Medical (Med) definitive contracts as there were no cost-plus contracts.

The results are summarized in Table 7. Contract structure is correlated with single offers in 50 percent of the cases. However, even in cases where contract structure and single offers are related, the direction of the relationship is unclear. For example, contract structure and single offers are related for MSPA contracts for both definitive contracts and Multiple Award IDV task orders. However, there are more single offers under a cost-plus structure than under a fixed-price structure for definitive contracts and fewer single offers under a cost-plus structure than under a fixed-price structure for Multiple Award IDV task orders (see Table 8). In the table, Fisher's exact indicates the probability that single and multiple offers have the same distribution.

Based on these results, it is unlikely that contract structure is an important cause of single offers.

Table 8. Statistical Tests of Relationship between Single Offers and Payment Arrangements for MSPA by Award Type

	Definitive		Multiple Award	
	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus
Single Offers	244	55	2186	504
	49.69 %	63.95 %	54.00 %	38.59 %
Multiple Offers	247	31	1862	802
	50.31 %	36.05 %	46.00 %	61.41 %
Total	491	86	4048	1306
Fisher's exact	0.019		0.000	

E. SINGLE OFFER CONCLUSIONS

In FY 2008, RDT&E and services together represented more than 50 percent of DOD contracts. Of the $155.3 billion in competed DOD service contracts, $28.4 billion, or 18 percent, appeared to be awarded after receiving a single offer. This appearance is misleading, however. Approximately $3 billion in RDT&E single offer contracts was actually from BAAs and SBIRs, which appear as single offers in the FPDS-NG database regardless of the number of proposals received.

An additional $10.9 billion was due to single offer Multiple Award IDV task orders. The pool of firms eligible to bid on the task orders was selected based on an IDV competition with multiple offers. Although it is difficult to quantify the benefit, to the extent that firms believe there will be bids from the other qualified firms on the Multiple Award, the benefits of the competition for the master IDV contract confer to the task orders. We therefore characterize the single offer Multiple Award IDV task orders as having received some competition.

The final $14.5 billion, 9 percent of competed DOD service contract dollars, in single offer definitive contracts ($5.9 billion) and Single Award IDV task orders ($8.0 billion) was awarded without multiple offers at any stage.[27] Figure 7 shows the revised breakout of competed contract dollars based on these findings.

[27] The total does not add to $14.5 billion due to single offer purchase order contracts, which are not analyzed here.

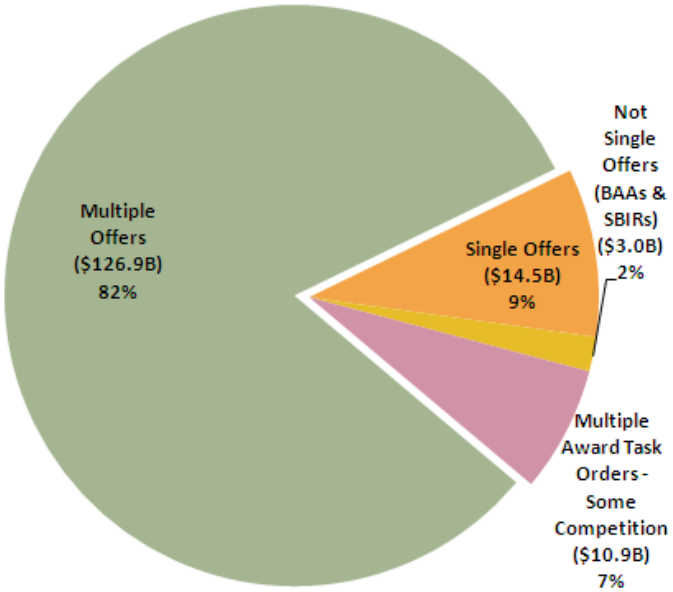

Figure 7. FY 2008 Competed Contract Dollars

Of the several hypotheses that we collected for causes of single offers, we were unable to quantitatively analyze quality of requirements, time to prepare the proposal, the effect of specialization, or the presence of an incumbent contractor. Several data sources exist that could be used for further research into some of these areas, but we were unable to obtain them.

Of the hypotheses that we were able to statistically analyze, we found that set-asides are not a cause of single offers. In fact, we found that Multiple Award IDV task order set-asides were less likely to receive a single offer than task orders that were not set-asides. We found that small contracts are less likely to receive single offers than large contracts and that contract structure (cost-plus or fixed price) correlates with single offers in some industry segment and award type combinations, but the direction of the relationship is not clear. We find it unlikely that contract structure is an important factor for single offers.

Additionally, although we were unable to quantitatively assess the effects, there are nonetheless some indications that allowing firms sufficient time to prepare their bids may increase the number of offers, particularly on Multiple Award IDV task orders.

Perhaps more important than what we found is what we didn't find. We were unable to find an explanation for single offer contracts in the data. Though various explanations may hold true for individual cases, we did not find a root cause or systemic issue driving the number of single offers.

In particular, there does not appear to be a problem with the services industrial base. We found no evidence of a lack of qualified firms, and no barriers to entry except in a few isolated cases involving specialized skills (such as medical specialists or intelligence analysts) combined with other exacerbating factors such as geographical constraints.

As a final point, we argue that receiving a single offer does not necessarily mean that the competitive process was ineffective. Firms have limited resources with which to prepare bids and proposals, a time-consuming and costly process. Firms are selective, choosing proposals for which they believe they have a competitive advantage. These subjective expectations are, in part, a result of the firms' beliefs about which other firms will bid the project. For this reason, number of offers may not be a sufficient metric for gauging the level of competition for these contracts.

IV. SOLE SOURCE CONTRACT RESULTS

Although a clear preference is found in law and regulation for full and open competition in Federal Government contracting, in accordance with the Federal Acquisition Regulations (FAR), contracts may be awarded without competition under certain circumstances. These exceptions to full and open competition include the existence of only one source, unusual or compelling urgency, international agreements, and public interest, among others. In FY 2008, of the $201.9 billion in DOD contracts for services, $46.5 billion was awarded without competition. Contracts awarded under circumstances other than full and open competition are further categorized into "sole source" and "other not competed." Table 9 shows the FAR exceptions that are considered sole source and those considered other not competed.

The purpose of this study is to determine whether there are underlying causes, beyond the stated FAR exceptions, driving the number of sole source contracts. We focus on sole source contracts, but discuss our results in the context of all not-competed contracts when appropriate.

Table 9. Classification of Sole Source and Other Not Competed

Sole Source	Other Not Competed
Unique Source	Urgency
Only One Source - Other	Particular Sources Mobilization, Essential R&D capability or Expert Services
Follow-On Contract	International Agreement
Unsolicited Research Proposal	Authorized for Resale
Patent/Data Rights	Authorized by Statute
Brand Name	National Security
Utilities FAR 41.2	Public Interest
Standardization	

A. SCOPE OF SOLE SOURCE CONTRACTS

Not-competed contracts account for $46.5 billion (23 percent) of the DOD service sector contracts awarded in FY 2008. Sole source contracts account for $25.9 billion (56 percent) of all not-competed contract dollars.

Sole source contracts can be used for all award types, including task orders issued under Multiple Award IDVs that utilize an exception to fair opportunity. Figure 8 shows the relative percentage of sole source contract dollars by award type. Definitive contracts

account for the majority, followed by Single Award IDV task orders. As was explained above, we categorize a Single Award IDV task order as sole source if the original Single Award IDV contract was awarded sole source. For Multiple Award IDVs, the IDV competition selects a set of contractors who compete for the task orders. All contractors selected for a Multiple Award IDV are expected to receive fair opportunity to compete for the task orders. However, just as FAR exceptions to competition are allowed in standard contracts, exceptions to fair opportunity are allowed for Multiple Award IDV task orders. Multiple Award IDV task orders awarded without allowing fair opportunity are categorized as not-competed contracts and included in the total value of not-competed contracts. Those task orders awarded under exceptions to fair opportunity that are not considered sole source are not included in our sole source analysis. For a more detailed explanation of which exceptions to fair opportunity are considered sole source rather than other not competed, see Appendix A.

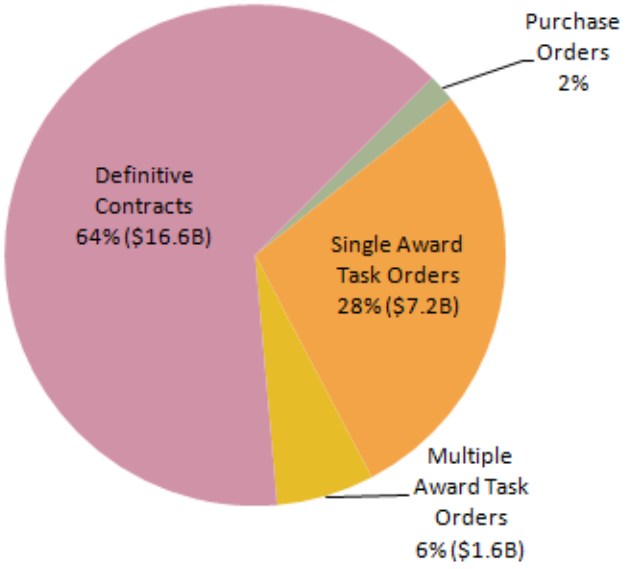

Figure 8. FY 2008 Sole Source Contract Dollars by Award Type

B. BRIDGE CONTRACTS

As noted earlier, the goal of this task is to identify the causes underlying the stated FAR bases for sole source contracts. When we discussed causes of sole source contracts with contracting officers, there was a consensus that the use of bridge contracts—contracts written to cover the gap between the end of one contract and the beginning of the next—was a major contributor. A bridge contract, which may be a new contract or an

extension to an existing contract, is typically short term, usually less than six months, but may be written for a year or more.

Bridge contracts are used when a delay in the acquisition process causes the existing contract to expire before the new contract is ready to be put in place. Delays in the acquisition process may come at any point in the process:

- Due to the requiring agency, such as requirements not being submitted in time or a change in the requirements.
- Due to the contracting office, such as the discovery that the planned contract vehicle cannot be used or a problem at any of the several review and approval boards that constitute the process.
- Due to other sources, such as protests of the contract award.

Although we are unable to quantitatively analyze the causes of acquisition delays, we suggest some possibilities for future exploration:

A lack of contracting office staff or inexperienced staff. Inadequate staffing may result in delays through several mechanisms. Staffing issues were frequently raised by contracting offices. Many of the offices we spoke to had been severely understaffed (one office reported 44 vacancies out of 110 billets), but for most the situation was either improving or had already improved. These offices reported that although they were able to fill vacancies, the inability to hire experienced contracting officers left their offices with a high percentage of inexperienced staff.

Contracting offices also mentioned concerns about upcoming retirements and the loss of experience the retirements will represent. A decrease in experienced staff is supported by a Congressional Research Service (CRS) report on the federal workforce. This report found that the average length of service had declined from 15.2 years to 14.7 years between 1998 and 2008. The decline had occurred mostly in the middle categories, particularly the percentage of the workforce with 10 to 14 years of service. The percentage of the workforce with less than five years of service had grown from nearly 16 percent in 1998 to over 25 percent in 2008.[28] The report also notes concerns about losing the remaining experienced employees to retirement. The report found that the percentage of employees aged 55 or older had increased from 15 percent in 1998 to 24 percent in 2008, which represents an increase in the percentage of employees potentially eligible to retire.[29]

---

28 Copeland, page 21.

29 Copeland, page 20.

A lack of training in writing requirements. If the specifications or the award criteria are unclear, unsuccessful contractors may file protests. Bid protests against the DOD have increased over the past several years. The CRS reports the number of bid protests against the DOD increased 38 percent from FY 2001 (603) to FY 2008 (838).[30] Even though most protests are not sustained, filing a protest can still delay the award of a contract because it may trigger an automatic postponement of a contract award or performance.[31]

A lack of acquisition planning, including delays by customer agencies in turning in requirements. The previous two factors—lack of customer training and lack of experienced contracting staff—likely contribute to the third issue raised by the contracting offices and investigators from the GAO and IG offices: lack of acquisition planning. Customers may not be aware of how long it takes to run a competition or complete a negotiation. Inexperienced or overworked staff may not notify the customer offices of upcoming deadlines, which can result in rushed specifications or missed deadlines.

Specifically, the GAO and IG reports note that there are issues with the specifications for Multiple Award IDV task orders, that the work may not be appropriate for a Multiple Award contract, and that all the contractors may not be technically qualified to perform the work. The 2001 IG report states that contractors competed for task orders based on requirements that were incomplete and did not realistically address the amount of work required.[32] The 2009 IG report states that detailed performance requirements could not be written because the scope of the task orders was too broad.[33]

While we were unable to quantify the effect of these possible causes of acquisition delays, we did research the scope of bridge contracts in DOD service sector contracts.

1. Bridge Contracts in FPDS-NG

Since we were unable to determine a way to definitively distinguish bridge contracts in the FPDS-NG data, we attempted to use the information about the typical length of bridge contracts as a proxy for identifying them in the database.

---

30 Schwartz and Manuel, page 12 and Table A-2.

31 Ibid, page 8.

32 DOD IG Report D-2001-189, page 14.

33 DOD IG Report D-2009-082, page 15.

Many task orders and definitive contracts have initial terms of one year plus options, so we examined contracts with terms strictly less than 12 months and those with terms of six months or less. Figure 9 shows that 31 percent of new sole source definitive contracts are written for six months or less and 58 percent are written for less than one year. Task orders are even more likely to be short-term: 52 percent are written for six months or less and 73 percent for less than one year.[34] (See Table C-6 in Appendix C.)

It turns out that the majority of all sole source task orders and definitive contracts are written for less than one year. There is no way to determine whether these contracts are bridge contracts, short-term projects, or an artifact of the way contracts are written using a base year plus options format. In addition, this analysis excludes modifications, which are often used for bridge contracts as well. As a result, we must turn to another source to estimate the effect of bridge contracts.

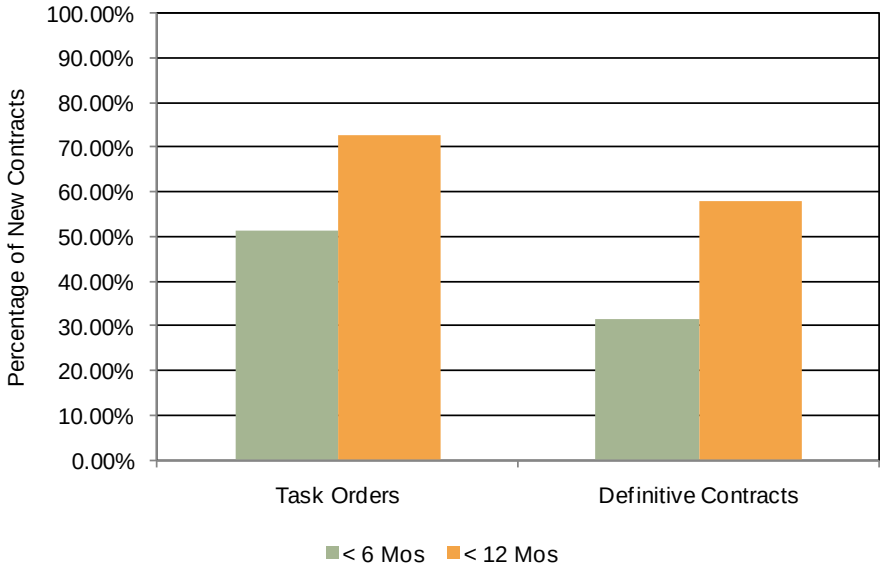

Figure 9. Percentage of New FY 2008 Contracts by Contract Length and Award Type

2. Justification and Approval Database

A Justification and Approval (J&A) is a document required to justify and obtain appropriate level approvals for contracts awarded without the benefit of full and open competition as required by the FAR. Beginning in early 2009, federal agencies are

[34] Purchase order contracts are typically used for small purchases, which are also likely to be short-term. We have excluded purchase orders from this analysis.

required post their J&As, with supporting documents, to the FedBizOpps Web site within 14 days of their approval.

We collected all J&As posted on the FedBizOpps Web site between 1 March 2009 and 30 September 2009. Using the text of the J&A and attached documents, we attempted to determine whether each of the J&As was a bridge contract. “Bridge contract” is not an official term, and we could not find an official definition. Despite this, J&As frequently state that the sole source contract is a bridge contract, though not all do. Determining which contracts are bridge contract requires some interpretation. For the purposes of this study, we classify a contract as a bridge contract if:

a. It is a not-competed contract or a sole source extension to an existing contract due to a delay, and the award process or competition is planned or has already been held, or
b. The J&A states that the contract or extension is a bridge contract.

3. Results of J&A Analysis

Over the seven months from March through September 2009, we obtained 958 J&As from the FedBizOpps Web site. Of these, 777 were for DOD contracts and 217 were for DOD services. The J&As show that bridge contracts occur in all federal agencies and in both sole source and other not-competed categories. Figure 10 shows the breakdown of the data.

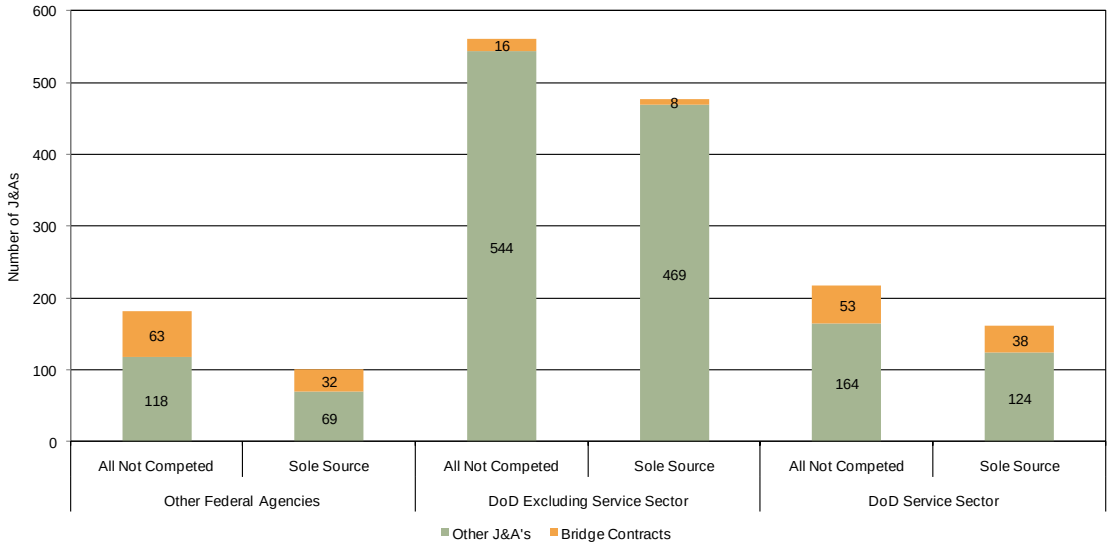

Figure 10. Breakdown of J&A Data

Figure 11 shows the percentage of sole source J&As that we classified as bridge contracts. For sole source J&As, bridge contracts are a higher percentage in the DOD services sector than in DOD as a whole, but not as high as in other federal agencies. Over 23 percent of the DOD service sector sole source J&As were identified as bridge contracts, compared with less than 2 percent of non-service DOD J&As.

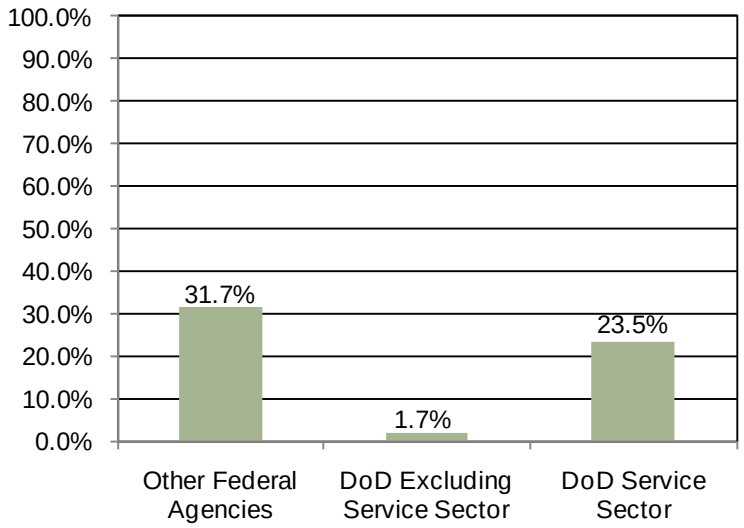

Figure 11. Percentage of Bridge Contracts in Sole Source J&As

To determine the value of the DOD service sector bridge contracts identified through the J&As, we called on the DMDC to pull the contracts from its database and provide the contract values. The DMDC was able to match 135 (62 percent) of the 217 DOD services sector contracts, of which 25 were bridge contracts.

Of the DOD service sector J&As for which we obtained a contract value, bridge contracts represent over 10 percent of the sole source DOD service sector contract values. Due to the amount of data missing from both the bridge and non-bridge J&As, we hesitate to extrapolate this finding to estimate the total value of bridge contracts in DOD services. Due to the short-term nature of bridge contracts, though, the total contract value likely underestimates the cost of their use. We elaborate on this thought in the next section.

C. SOLE SOURCE CONCLUSIONS

In FY 2008, of the $200 billion in DOD contracts for services, not-competed contracts account for $46.5 billion (23 percent). Sole source contracts, a subset of not-competed, account for $25.9 billion (56 percent) of all not-competed contract dollars. The

purpose of this study was to determine whether there are underlying causes, beyond the stated FAR exceptions, driving the number of sole source contracts.

The one underlying cause that we uncovered was the use of short-term contracts to fill the gap in services between the end of one contract and the beginning of the next. These bridge contracts, as they are called, are due to delays in the acquisition process. Delays can be caused by many factors either at the requiring agency, the contracting office, or from external sources.

To analyze this issue, we collected J&A documents from the FedBizOpps Web site from March through September 2009. We found that during this period, nearly one in four J&As for not-competed DOD services posted was a bridge contract.

The value of these short-term contracts appears to be small, about 10 percent of the total sole source J&As for those where we were able to obtain the contract values. However, the use of bridge contracts represents a potentially large cost to the DOD due to process inefficiencies. This cost must include the costs of preparing and administering the bridge contracts at the requiring agency, the contracting office, and the contractor. The use of bridge contracts also places a strain on the limited DOD contracting workforce because the contracts must be justified and awarded in addition to the follow-on competitions for the required services that must be performed. Finally, the DOD does not receive the benefits of competition during the period that the bridge contracts are in force.

The ability to identify bridge contracts in the FPDS-NG database would facilitate further research into this area, allowing the DOD to more definitively quantify the use of these contracts in the service sector and possibly to evaluate the cost to the Department of their use.

V. POLICY IMPLICATIONS

In FY 2008 DOD committed approximately $200 billion in contracts for services. Over $28 billion of this total were competed contracts that attracted only a single offer. Nearly $26 billion in DOD service contracts were awarded sole source. Together, these two categories accounted for $54 billion in FY 2008, or over 25 percent of the total volume of DOD spending on service contracts in that year. The question that prompted this study was whether single offer and sole source contracts represent a lack of competition for DOD services. Of specific concern was that there may be problems with the industrial base.

What we found was that single offers on competed contracts probably do not indicate a problem. Of the $28 billion in apparent single offer contracts, half received some competition and we could find no clear systemic cause for the remaining half. Commonly suggested explanations, such as set-asides and contract structure, are not causes of single offers. Finally, there is no evidence of any issues, such as lack of qualified firms or barriers to entry that would indicate an industrial base problem.

That said, there were several hypotheses posed, which we were unable to test due to inability to obtain the necessary data. There is some evidence in the literature that providing contractors with more time to prepare their bid responses may increase the number of offers, especially in the case of Multiple Award IDV task orders. Stott and Zlomislic (2004) found that increasing the time allowed for bid preparation had a significant effect on receiving multiple offers. A 2004 GAO report and DOD IG reports from 2001 and 2009 also cite lack of time for bid preparation as a possible cause of single offers on some contracts. Further research into bid preparation time as well as other possible causes such as specialization and geographical region may produce some insights into methods for reducing the number of single offers.

For sole source contracts there does appear to be a problem, not with the industrial base or with competition, but with DOD practices and policies. Bridge contracts put in place due acquisition process delays caused by requirements documents not having been prepared in a timely manner, issues during contract review and approval process, or award protests, for example, cause services that were meant to be competed to be awarded sole source, at least in the short term.

In the data we collected, nearly one in four sole source DOD service contracts was a bridge contract. Further research should be done to ensure that the results we obtained in our limited data collection effort are representative over a longer period. The ability to identify bridge contracts in the FPDS-NG database would facilitate additional research into this area, allowing the DOD to more definitively quantify the use of these contracts in the service sector and possibly to evaluate the cost to the Department of their use.

The contract value for these contracts appears to be small, about 10 percent of the total sole source J&As for those where we were able to obtain the contract values. However, the cost to the DOD of their use is much larger. The cost includes the costs of preparing and administering the bridge contracts at the requiring agency, the contracting office, and the contractor. The use of bridge contracts also places a strain on the limited DOD contracting workforce because the contracts must be justified and awarded in addition to performing the follow-on competitions for the required services. Addressing process inefficiencies that cause competitive contract award delays could reduce the number of bridge contracts and save the DOD the cost of administering them.

APPENDIX A:
DEFINING COMPETED, NOT COMPETED AND SOLE SOURCE CONTRACTS

The Extent Competed field of the FPDS-NG lists nine types of procedures used for procurement. They range from Full and Open Competition to Not Available for Competition. We used this field to categorize the contract actions as competed or not competed. Not competed contracts are further divided into sole source and other statutory exceptions.

Table A-1 gives our definitions of competed and not competed contracts.

Table A-1. Classification of Competed and Not Competed Contracts by Extent Competed

Competed	Not Competed
Full and Open Competition	Not Available for Competition
Full and Open Competition after exclusion of sources	Not Competed
Competitive Delivery Order	Follow-on to Competed Action
Competed under Simplified Acquisition Threshold (SAT)	Not Competed under SAT
	Non-Competitive Delivery Order

The FAR exceptions determine whether the action is considered a sole source contract or other not competed. We were directed by IP to classify a contract as sole source if the reason not competed was given as:

- Unique Source
- Follow-on Contract
- Unsolicited Research Proposal
- Patent/Data Rights
- Utilities
- Standardization[1]
- Brand Name
- Only One Source.

[1] Standardization programs seek to standardize equipment and services to reduce training and maintenance costs.

We classify all other competition exceptions as Other Not Competed. See Table A-2.

Table A-2. Classification of Sole Source and Other Not Competed by Reason Not Competed

Sole Source	Other Not Competed
Unique Source	Urgency
Only One Source – Other	Particular Sources Mobilization, Essential R&D capability or Expert Services
Follow-On Contract	International Agreement
Unsolicited Research Proposal	Authorized for Resale
Patent/Data Rights	Authorized by Statute
Brand Name	National Security
Utilities FAR 41.2	Public Interest
Standardization	

1. Indefinite Delivery Vehicles

Task orders are contracts written against a master Indefinite Delivery Vehicle (IDV). An IDV provides a general scope of work and allows the agency to write task orders as needed. These are awarded in two ways:

1. As single awards, in which one firm receives all the subsequent task orders, and
2. As multiple awards, in which several firms are included on the contract and the task orders are competed between the preselected firms as they arise.

The database entries do not specify whether the task orders originated from Single or Multiple Award IDVs. To completely classify the task orders, one would have to identify the IDV on which the task order was written. Complicating this, IDV contracts often extend over multiple years, so that a task order written in FY 2008 may apply to an IDV written in FY 2006. The frozen FPDS-NG database we received contained only contract actions from FY 2008. As a result, we could match the task orders to their master IDV contracts only if the master IDV was awarded in FY 2008. However, firms on a multiple award contract must be a given a fair opportunity to make an offer for any task order against the IDV. If the Fair Opportunity field of a task order is null, we assume the task order was written on a Single Award IDV. If the Fair Opportunity field is not null, we assume the task order was written on a Multiple Award IDV. Using this classification

methodology may result in our overstating the number of Single Award task orders if this field was inadvertently left blank.[2]

In some cases, the task orders on a Multiple Award IDV are awarded without full competition among the preselected firms. These Exceptions to Fair Opportunity are allowed and parallel the FAR exceptions to competition. The appropriate exception is indicated in the database field Statutory Exceptions to Fair Opportunity. If the field indicates Fair Opportunity Given, this means that the firms on the Multiple Award IDV had the opportunity to bid. We were directed by IP to classify a multiple award task order as a sole source only if the Statutory Exceptions to Fair Opportunity value is Only One Source. All other responses in this field are classified as Other Statutory Exceptions. We classify Multiple Award IDV task orders as competed or not competed, just as we do definitive contracts, and exclude the not competed task orders from our single offer analysis. The original Single Award IDVs may be awarded non-competitively as well. In these cases, we exclude the non-competitive Single Award task orders from our single offer analysis. Table A-3 shows the classification breakdown of Multiple Award IDV task orders.

Table A-3. Classification of Multiple Award IDV Task Orders by Exceptions to Fair Opportunity

Competed	Not Competed	
	Sole Source	Other Not Competed
No Exception – Fair Opportunity Given	Only One Source - Other	Urgency
		Follow-on Task Order
		Minimum Guarantee
		Other Statutory Authority

2. Contract Values

The FPDS-NG contains three fields describing the dollar value of the contract actions, each with a slightly different definition, which we list below. The three fields are Base and All Options, Current Contract Value, and Dollars Obligated.

The Base and All Options field is the total value of the contract plus the value of any options. For example, if a contract is valued at $1 million per year and the base contract is 1 year, with the option to extend for another 4 years in 1-year increments at

[2] We examine the Fair Opportunity field only for contract actions identified as task orders, not for purchase orders or definitive contracts.

the same price, then the Base and All Options value should be $5 million. For IDV contracts this value is interpreted as the estimated total value of orders expected to be placed against the contract.

Current Contract Value is the cumulative dollar value that has actually been committed. In the example given above, if the government has exercised the option to extend the contract for 1 year, then this field should be $2 million.

The Dollars Obligated field is the committed dollar value of the current action. In our example, if the government has exercised the option to extend the contract for 1 year, the Dollars Obligated field should be $1 million for the original contract action and $1 million for the action recording the execution of the option.

The FPDS-NG database tracks all contract actions—that is, the original contract and all subsequent modifications. For every contract, the initial award is entered into FPDS. If a modification is made to the contract, in FPDS-NG the modification inherits the characteristics of the original contract. The method of procurement, type of contract, and number of bidders on the modification should be the same as those on the initial contract. The Dollars Obligated for the modification should contain only the incremental amount, not the entire contract amount.

We used both the Dollars Obligated and the Base and All Options values in our analyses.

As is the case with any large database, the FPDS-NG contains data errors. In some cases, the value fields for contract modifications do not contain only the incremental values. In addition, there may be cases where the contract was incorrectly coded as having only one offer. Our study did not attempt to address the possible causes or the magnitude of data errors in the database.

APPENDIX B:
CHI-SQUARED TESTS

We tested several factors for a possible relationship to single offers on competed contracts. We used chi-squared tests to compare the distribution of single and multiple offer contracts to the factor. The chi-squared test allows us to compare the observed frequency of an event to the theoretical or expected frequency of an event. The theoretical frequency is determined by the assumption of independence (i.e., no relationship). The chi-squared test calculates the χ^2 statistic using the formula:

$$\chi^2 = \sum_{i=1}^{R} \sum_{j=1}^{C} \frac{(A_{ij} - E_{ij})^2}{E_{ij}}$$

Where

A_i = actual frequency observed in the *i*th column and *j*th row

E_i = expected frequency in the *i*th column and *j*th row

R = number of rows

C = number of columns

If $\chi^2 = 0$, then the actual frequency exactly matches the expected frequency. If $\chi^2 > 0$, then they do not match exactly. The larger the value of χ^2, the bigger the discrepancy between the actual and expected frequencies. The distribution of χ^2 is approximated by the chi-squared distribution, given that the frequency in each cell is at least 5. The degrees of freedom are given by $v = (R - 1) \times (C - 1)$.

The expected frequency is calculated on the basis of a hypothesis H_0. In our case, H_0 is that there is no relationship between the two variables—that is, the single or multiple offers are independent of the column variable. If the rows and columns are independent, then the joint probability is equal to the product of their marginal probabilities.

Then, if the value of the χ^2 statistic calculated above exceeds some critical value—we used the 95 percent significance level—we conclude that the actual frequency of single offers or multiple offers is not independent of the column variable; otherwise, we would fail to reject the null hypothesis.

In most of our industry segments, the frequency in each cell is greater than 5. In a few cases where this is not true, we have used Fisher's Exact test instead. Fisher's Exact test uses the hypogeometric distribution to calculate the exact probability of observing a particular distribution or a more extreme one given that the two variables are independent.

We tested for a relationship between number of offers and each of our factors. We ran the tests by industry segment within each award type. This was done to control for differences between industry segments and award types.

In all the tests discussed below, we used only the original contract awards and excluded modifications. We did this because the FPDS-NG database contains all contract actions, not just the initial contract awards. Modifications to contracts inherit characteristics such as award type, set-aside status, number of bidders, and contract structure (i.e., fixed-price or cost-plus). Modifications to existing contracts are not bid, and could skew the results. For example, suppose a contract modification to a single offer contract valued at $500,000 increased the contract value by $50,000. If we did not exclude modifications, it would appear as if we had a single offer on a $500,000 contract and a single offer on the $50,000 modification. But the $50,000 modification was never actually open for bids. Furthermore, our study is focused on bidding behavior. At the time of the bid, the contract was worth $500,000, not $550,000. Therefore, we focus only on the original contract awards.

Single Award IDV task orders present a special difficulty for this type of analysis. Bidding occurs on the original IDV contract, with the orders placed as needed. Since firms bid on the master IDV contract on the basis of the expected total value of the contract without knowing the actual number or size of the individual task orders, we could not logically draw inferences about the relationship between task order size and single offers, the number of task orders and set-asides, or contract structure. Therefore, Single Award IDV task orders are excluded from the following analyses.

A. TESTS OF CONTRACT SIZE

The initial Base and All Options value of the contract should represent the contractors' expectation of the contract size (because they cannot be sure that a contract value will change), giving us a test of whether or not bidding behavior differs by contract size (See Table B-1 through Table B-15).

1. Multiple Award Task Orders

Table B-1. Fisher's Exact Test for a Relationship between Number of Offers and Contract Size for Multiple Award CR Task Order

CR	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	191	21	23	4	31	270
	28.98 %	13.38 %	23.47 %	12.12 %	8.47 %	20.56 %
Multiple Offers	468	136	75	29	335	1043
	71.02 %	86.62 %	76.53 %	87.88 %	91.53 %	79.44 %
Total	659	157	98	33	366	1313
Fisher's Exact	0.000					

Table B-2. Chi-Squared Test for a Relationship between Number of Offers and Contract Size for Multiple Award ER Task Order

ER	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	2339	132	45	20	74	2610
	57.01 %	53.88 %	51.14 %	39.22 %	14.18 %	52.11 %
Multiple Offers	1764	113	43	31	448	2399
	42.99 %	46.12 %	48.86 %	60.78 %	85.82 %	47.89 %
Total	4103	245	88	51	522	5009
Chi-Squared (4)	344.1569					
Pr	0					

Table B-3. Chi-Squared Test for a Relationship between Number of Offers and Contract Size for Multiple Award FR Task Order

FR	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	1808	171	78	49	132	2238
	36.90 %	22.83 %	20.26 %	26.34 %	19.30 %	32.42 %
Multiple Offers	3092	578	307	137	552	4666
	63.10 %	77.17 %	79.74 %	73.66 %	80.70 %	67.58 %
Total	4900	749	385	186	684	6904
Chi-Squared (4)	159.1662					
Pr	0					

Table B-4. Chi-Squared Test for a Relationship between Number of Offers and Contract Size for Multiple Award ICT Task Order

ICT	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	1560	141	64	34	246	2045
	65.05 %	59.75 %	56.14 %	53.13 %	50.00 %	61.89 %
Multiple Offers	838	95	50	30	246	1259
	34.95 %	40.25 %	43.86 %	46.88 %	50.00 %	38.11 %
Total	2398	236	114	64	492	3304
Chi-Squared (4)	43.8135					
Pr	0					

Table B-5. Chi-Squared Test for a Relationship between Number of Offers and Contract Size for Multiple Award MED Task Order

MED	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	381	123	50	12	71	637
	60.67 %	51.46 %	53.19 %	25.53 %	46.71 %	54.91 %
Multiple Offers	247	116	44	35	81	523
	39.33 %	48.54 %	46.81 %	74.47 %	53.29 %	45.09 %
Total	628	239	94	47	152	1160
Chi-Squared (4)	30.1816					
Pr	0					

Table B-6. Chi-Squared Test for a Relationship between Number of Offers and Contract Size for Multiple Award MSPA Task Order

MSPA	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	2314	343	166	121	575	3519
	53.68 %	48.45 %	44.74 %	48.99 %	45.71 %	51.04 %
Multiple Offers	1997	365	205	126	683	3376
	46.32 %	51.55 %	55.26 %	51.01 %	54.29 %	48.96 %
Total	4311	708	371	247	1258	6895
Chi-Squared (4)	34.5154					
Pr	0					

Table B-7. Chi-Squared Test for a Relationship between Number of Offers and Contract Size for Multiple Award RDT&E Task Order

RDT&E	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	178	41	11	16	68	314
	51.45 %	49.40 %	28.95 %	41.03 %	51.91 %	49.29 %
Multiple Offers	168	42	27	23	63	323
	48.55 %	50.60 %	71.05 %	58.97 %	48.09 %	50.71 %
Total	346	83	38	39	131	637
Chi-Squared (4)	8.3597					
Pr	0.079					

Table B-8. Chi-Squared Test for a Relationship between Number of Offers and Contract Size for Multiple Award TRANS Task Order

TRANS	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	193	89	66	25	124	497
	16.64 %	30.80 %	20.95 %	23.81 %	19.56 %	19.86 %
Multiple Offers	967	200	249	80	510	2006
	83.36 %	69.20 %	79.05 %	76.19 %	80.44 %	80.14 %
Total	1160	289	315	105	634	2503
Chi-Squared (4)	30.5882					
Pr	0					

Table B-9. Chi-Squared Test for Relationship between Number of Offers and Contract Size for Definitive CR Contracts

CR	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	39	13	7	6	37	102
	17.18 %	10.24 %	7.69 %	12.77 %	6.39 %	9.52 %
Multiple Offers	188	114	84	41	542	969
	82.82 %	89.76 %	92.31 %	87.23 %	93.61 %	90.48 %
Total	227	127	91	47	579	1071
Chi-Squared (4)	23.0446					
Pr	0.000					

Table B-10. Chi-Squared Test for Relationship between Number of Offers and Contract Size for Definitive ER Contracts

ER	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	256	41	13	7	50	367
	21.00 %	37.27 %	30.23 %	22.58 %	28.57 %	23.26 %
Multiple Offers	963	69	30	24	125	1211
	79.00 %	62.73 %	69.77 %	77.42 %	71.43 %	76.74 %
Total	1219	110	43	31	175	1578
Chi-Squared (4)	19.5328					
Pr	0.001					

Table B-11. Chi-Squared Test for Relationship between Number of Offers and Contract Size for Definitive FR Contracts

FR	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	180	48	20	19	64	367
	20.02 %	16.72 %	13.42 %	19.79 %	12.03 %	23.26 %
Multiple Offers	719	239	129	77	468	1211
	79.98 %	83.28 %	86.58 %	80.21 %	87.97 %	76.74 %
Total	899	287	149	96	532	1578
Chi-Squared (4)	17.1136					
Pr	0.002					

Table B-12. Fisher's Exact Test for Relationship between Number of Offers and Contract Size for Definitive ICT Contracts

ICT	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	104	20	6	1	15	146
	70.75 %	64.52 %	46.15 %	20.00 %	30.61 %	59.59 %
Multiple Offers	43	11	7	4	34	99
	29.25 %	35.48 %	53.85 %	80.00 %	69.39 %	40.41 %
Total	147	31	13	5	49	245
Fisher's exact	0.000					

Table B-13. Fisher's Exact Test for Relationship between Number of Offers and Contract Size for Definitive Med Contracts

MED	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	16	20	5	7	10	58
	48.48 %	60.61 %	33.33 %	43.75 %	26.32 %	42.96 %
Multiple Offers	17	13	10	9	28	77
	51.52 %	39.39 %	66.67 %	56.25 %	73.68 %	57.04 %
Total	33	33	15	16	38	135
Fisher's Exact	0.049					

Table B-14. Chi-Squared Test for Relationship between Number of Offers and Contract Size for Definitive MSPA Contracts

MSPA	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	163	62	21	18	85	349
	63.42 %	55.36 %	38.18 %	58.06 %	41.67 %	52.96 %
Multiple Offers	94	50	34	13	119	310
	36.58 %	44.64 %	61.82 %	41.94 %	58.33 %	47.04 %
Total	257	112	55	31	204	659
Chi-Squared (4)	29.2295					
Pr	0.000					

Table B-15. Fisher's Exact Test for Relationship between Number of Offers and Contract Size for Definitive TRANS Contracts

TRANS	<250K	250K-<500K	500K-<750K	750K-<1M	>1M	Total
Single Offers	22	3	1	1	7	34
	42.31 %	25.00 %	33.33 %	33.33 %	25.93 %	35.05 %
Multiple Offers	30	9	2	2	20	63
	57.69 %	75.00 %	66.67 %	66.67 %	74.07 %	64.95 %
Total	52	12	3	3	27	97
Fisher's Exact	0.601					

2. Tests of Set-Asides

The DOD uses a variety of set-asides that indicate the reason for the set-aside and its competitive status (see Table B-16). We combined all the competed set-asides categories for our analysis. We then created a contingency table for each industry segment and award type. Our null hypothesis is that the number of bids (single versus multiple) is not dependent on the set-aside status.

Table B-16. Type of Set-Asides Tracked in the FPDS-NG

8A	8A Competed
8AN	8A Sole Source
ESB	Emerging Small Business
HMP/HMT	Historically Black College or Minority Institution
HS3	8A with Hub Zone Preference
HZC	Hub Zone Competed
HZS	Hub Zone Sole Source
SBA	Small Business Set-Aside Total
SBP	Small Business Set-Aside Partial
SDVOSBC	Service Disabled Veteran Owned Small Business Concerns - Competed
SDVOSBS	Service Disabled Veteran Owned Small Business Concerns - Sole Source

When we found data errors such as contracts that are marked competed, yet have zero bids, or competed contracts with a set-aside code that indicates sole source (e.g., the code 8AN), we have excluded these contracts from our analysis.

Because we cannot identify BAAs and SBIRs in the FPDS-NG data, we have excluded definitive RDT&E contracts from this analysis.

Table B-17. Chi-Squared Tests of Single Offers and Set-Asides for Multiple Award Task Orders by Industry Segment

	Multiple Award Task Orders															
	CR		ER		FR		ICT		Med		MSPA		RDT&E		Trans	
Bids	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside
Single Offer	200	70	2,478	132	2,030	208	1,945	100	216	421	3,111	408	287	27	486	11
	20.64 %	20.35 %	52.27 %	49.25 %	36.11 %	16.21 %	63.48 %	41.67 %	61.89 %	51.91 %	54.78 %	33.55 %	54.36 %	24.77 %	23.94 %	2.33 %
Multiple Offers	769	274	2,263	136	3,591	1,075	1,119	140	133	390	2,568	808	241	82	1,544	462
	79.36 %	79.65 %	47.73 %	50.75 %	63.89 %	83.79 %	36.52 %	58.33 %	38.11 %	48.09 %	45.22 %	66.45 %	45.64 %	75.23 %	76.06 %	97.67 %
Total	969	344	4,741	268	5,621	1,283	3,064	240	349	811	5,679	1,216	528	109	2,030	473
Pearson chi2(1)	0.0132		0.9232		188.8663		44.8983		9.8156		180.6100		31.6390		112.6298	
Pr	0.909		0.337		0.000		0.000		0.002		0.000		0.000		0.000	

Table B-18. Chi-Squared Tests of Single Offers and Set-Asides for Definitive Contracts by Industry Segment

	Definitive Contracts													
	CR		ER		FR		ICT		Med		MSPA		Trans	
Bids	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside	None	Set-Aside
Single Offer	71	31	320	47	224	107	134	12	25	33	280	69	29	5
	8.48 %	13.25 %	22.94 %	25.68 %	17.00 %	16.59 %	66.34 %	27.91 %	35.71 %	50.77 %	63.49 %	31.65 %	39.19 %	21.74 %
Multiple Offers	766	203	1075	136	1094	538	68	31	45	32	161	149	45	18
	91.52 %	86.75 %	77.06 %	74.32 %	83.00 %	83.41 %	33.66 %	72.09 %	64.29 %	49.23 %	36.51 %	68.35 %	60.81 %	78.26 %
Total	837	234	1395	183	1318	645	202	43	70	65	441	218	74	23
Pearson chi2(1)	4.8191		0.6825		0.0510		21.7436		3.1173		59.3688		2.3470	
Pr	0.028		0.409		0.821		0.821		0.077		0.000		0.126	

RDT&E excluded due to BAAs and SBIRs.

3. Contract Structure

The FPDS-NG database contains a field labeled Type of Contract Pricing, which records the payment type of the contract. As shown in Table B-19, there are 16 different types of contract pricing arrangements. They range from Fixed Price to Cost-Plus to Labor Hours as well as several codes for combinations of the different pricing arrangements. To perform the analysis, we consolidated the various arrangements into Fixed Price and Cost-Plus categories and excluded the combination codes because they represent a small portion of the total. We considered codes A through M fixed-price contracts and codes R through Z cost-plus contracts.

Table B-19. Contract Structures Tracked in the FPDS-NG

Code	Short Description
A	Fixed Price Redetermination
B	Fixed Price Level of Effort
J	Fixed Price
K	Fixed Price with Economic Price Adjustment
L	Fixed Price Incentive
M	Fixed Price Award Fee
R	Cost Plus Award Fee
S	Cost No Fee
T	Cost Sharing
U	Cost Plus Fixed Fee
V	Cost Plus Incentive Fee
Y	Time and Materials
Z	Labor Hours
1	Order Dependent (This applies to IDVs only. IDV allows pricing arrangements to be determined separately for each order.)
2	Combination (This applies to Awards only. Applies to Awards where two or more of the above apply.)
3	Other (This applies to Awards only applies to Awards where none of the above apply.)

In this test, we assume that the number of bids is not dependent on the contract pricing arrangements.

Table B-20. Fisher's Exact Tests of the Relationship between Number of Bidders and Contract Structure for Multiple Award Task Orders by Industry Segment

	CR		ER		FR		ICT		Med		MSPA		RDT&E		Trans	
Bids	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus
Single Offer	270	0	2,289	207	2,121	47	1,685	67	637	0	2,186	504	73	218	495	0
	21.18 %	0.00 %	56.34 %	30.00 %	33.47 %	26.40 %	61.45 %	55.83 %	56.32 %	0.00 %	54.00 %	38.59 %	36.14 %	55.90 %	19.92 %	0.00 %
Multiple Offers	1,005	37	1,774	483	4,216	131	1,057	53	494	1	1,862	802	129	172	1,990	2
	78.82 %	100.00 %	43.66 %	70.00 %	66.53 %	73.60 %	38.55 %	44.17 %	43.68 %	100.00 %	46.00 %	61.41 %	63.86 %	44.10 %	80.08 %	100.00 %
Total	1,275	37	4,063	690	6,337	178	2,742	120	1,131	1	4,048	1,306	202	390	2,485	2
Fisher's Exact	0.000		0.000		0.053		0.215		0.437		0.000		0.000		1.000	

Table B-21. Fisher's Exact Tests of a Relationship between Number of Offers and Contract Structure for Definitive Contracts by Industry Segment

	CR		ER		FR		ICT		MSPA		Trans	
Bids	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus	Fixed Price	Cost-Plus
Single Offer	102	0	338	19	316	6	138	2	244	55	31	3
	9.65 %	0.00 %	22.06 %	82.61 %	16.40 %	46.15 %	63.01 %	28.57 %	49.69 %	63.95 %	33.70 %	75.00 %
Multiple Offers	955	2	1194	4	1611	7	81	5	247	31	61	1
	90.35 %	100.00 %	77.94 %	17.39 %	83.60 %	53.85 %	36.99 %	71.43 %	50.31 %	36.05 %	66.30 %	25.00 %
Total	1,057	2	1,532	23	1,927	13	219	7	491	86	92	4
Fisher's Exact	1.000		0.000		0.012		0.108		0.019		0.126	

APPENDIX C:
DATA TABLES

Table C-1. Breakdown of Competed Contract Dollars (Millions) by Award Type and Industry Segment

	Purchase Orders	Single Award Task Orders	Multiple Award Task Orders	Definitive Contracts	Total
CR	$26.8	$4,072.6	$4,016.9	$27,075.4	$35,191.7
ER	$310.7	$7,073.8	$2,965.0	$4,261.3	$14,610.8
FR	$300.9	$7,545.3	$4,945.5	$7,446.5	$20,238.2
ICT	$159.0	$4,414.9	$3,836.1	$1,056.3	$9,466.3
Med	$90.7	$788.3	$403.5	$8,190.1	$9,472.6
MSPA	$289.0	$15,423.8	$14,124.9	$4,218.5	$34,056.2
RDT&E	$117.2	$6,106.2	$1,704.0	$18,889.2	$26,816.6
Trans	$252.8	$593.7	$3,659.9	$937.6	$5,443.9
Total	$1,547.1	$46,018.6	$35,655.7	$72,074.9	$155,296.4

RDT&E – Research, Development, Test & Evaluation
FR – Facilities Related
MSPA – Management Support, Professional and Administrative
ER – Equipment Related
CR – Construction related
ICT – Information and Communications Technology
Med- Medical
Trans - Transportation

Table C-2. BAAs and SBIRs Identified by Contracting Offices (Millions of Dollars)

Contracting Office	Single Bid Contracts	Total Dollars	BAA Contracts	Percent BAAs	BAA Dollars	percent BAA Dollars	BAA & SBIR Contracts	percent BAA & SBIR Contracts	BAA & SBIR Dollars	percent BAA & SBIR Dollars
FA8750	81	$49.2	56	69.14 %	$39.9	81.10 %	56	69.14 %	$39.9	81.10 %
N00014	113	$111.5	67	59.29 %	$62.2	55.81 %	89	78.76 %	$89.7	80.46 %
W91CRB	60	$27.8	40	66.67 %	$20.8	74.82 %	57	95.00 %	$25.6	91.92 %
W31P4Q	160	$35.5	37	23.13 %	$10.5	29.51 %	37	23.13 %	$10.5	29.51 %
W9113M	66	$120.4	3	4.55 %	$3.7	3.10 %	3	4.55 %	$3.7	3.10 %
W15P7T	147	$99.8	82	55.78 %	$16.1	16.14 %	145	98.64 %	$98.8	99.02 %
W912HZ	65	$18.7	51	78.46 %	$16.0	85.60 %	61	93.85 %	$17.2	92.13 %
W15QKN	47	$48.1	2	4.26 %	$2.0	4.11 %	41	87.23 %	$18.6	38.65 %
W911QY	59	$40.2	44	74.58 %	$38.2	94.93 %	59	100.00 %	$40.2	100.00 %
Total	798	$551.2	382	47.87 %	$209.4	37.99 %	548	68.67 %	$344.2	62.45 %

Table C-3. Single Offer Contract Dollars (Millions) Excluding BAAs & SBIRs by Award Type and Industry Segment

Industry Segment	Purchase Orders	Single Award Task Orders	Multiple Award Task Orders	Definitive Contracts	Estimated BAAs & SBIRs	Total Excluding BAAs & SBIRs	Percent of Total
CR	$9.3	$91.3	$574.9	$975.4		$1,650.9	6.49 %
ER	$129.4	$2,399.0	$779.7	$747.9		$4,056.0	15.95 %
FR	$92.7	$664.7	$1,067.5	$1,043.1		$2,868.1	11.28 %
ICT	$80.2	$515.7	$1,807.9	$150.1		$2,553.8	10.05 %
Med	$50.4	$102.9	$123.0	$45.0		$321.2	1.26 %
MSPA	$122.0	$2,474.6	$4,928.3	$1,112.5		$8,637.3	33.97 %
RDT&E	$25.9	$1,732.7	$736.9	$1,790.3	$2,977.7	$4,285.8	16.86 %
Trans	$41.5	$75.9	$852.7	$79.7		$1,049.8	4.13 %
Total	$551.4	$8,056.6	$10,870.9	$5,944.0	$2,977.7	$25,423.0	

Table C-4. Sole Source Contract Dollars (Millions) by Award Type and Industry Segment

	Purchase Orders	Single Award Task Orders	Multiple Award Task Orders	Definitive Contracts	Total
CR	$2.6	$13.5	$32.3	$27.4	$75.9
ER	$109.4	$2,423.2	$204.2	$3,668.9	$6,405.6
FR	$54.5	$537.5	$113.7	$372.5	$1,078.2
ICT	$70.6	$580.1	$402.6	$316.9	$1,370.2
Med	$40.5	$38.4	$7.6	$36.0	$122.5
MSPA	$139.6	$1,661.1	$801.7	$2,184.2	$4,786.7
RDT&E	$30.5	$1,964.6	$62.0	$9,935.6	$11,992.7
Trans	$16.4	$40.4	$8.4	$18.7	$83.9
Totals	$464.2	$7,258.9	$1,632.4	$16,560.1	$25,915.6

Table C-5. Other Not Competed Contract Dollars (Millions) by Award Type and Industry Segment

	Purchase Orders	Single Award Task Orders	Multiple Award Task Orders	Definitive Contracts	Total
CR	$11.6	$341.7	$546.3	$890.6	$1,790.1
ER	$80.9	$864.1	$220.1	$472.1	$1,637.1
FR	$136.9	$1,716.4	$530.5	$2,031.5	$4,415.3
ICT	$66.5	$187.6	$468.9	$240.2	$963.2
Med	$58.3	$70.4	$231.2	$784.1	$1,144.1
MSPA	$283.1	$2,969.6	$966.8	$2,088.6	$6,308.1
RDT&E	$14.4	$1,010.5	$74.5	$3,153.0	$4,252.4
Trans	$11.3	$46.9	$0.4	$95.2	$153.9
Totals	$662.9	$7,207.2	$3,038.7	$9,755.3	$20,664.1

1. Potential Bridge Contracts

Table C-6. FY 2008 Potential Bridge Contracts by Award Type, Industry Segment and Contract Length

	Task Orders			Definitive Contracts		
	All	< 6 mos	< 12 mos	All	< 6 mos	< 12 mos
CR	50	36	46	21	12	13
ER	3,427	17,61	2,686	222	80	139
FR	1,260	965	1,129	222	106	146
ICT	1,712	484	672	80	25	45
Med	106	92	102	20	4	15
MSPA	2,190	1,200	1,711	279	71	165
RDT&E	727	247	489	191	30	80
Trans	248	220	230	19	5	7
Total	9,720	5,005	7,065	1,054	333	610
Percentages		51.49%	72.69%		31.59%	57.87%

Table C-7. J&As Collected from FedBizOpps Web site by Statutory Authority

	All Agencies		All DOD		All DOD Services		DOD Services with Values Attached			
Statutory Authority	Total J&As	Bridge	Total J&As	Bridge	Total J&As	Bridge	Total J&As	Bridge	J&A Values ($M)	Bridge Values ($M)
FAR 6.302-1 - Only one responsible source (except brand name)	615	73	527	43	147	35	95	19	$187.10	$19.18
FAR 6.302-1(c) - Brand name	125	5	112	3	15	3	6	1	$1.44	$0.00
FAR 6.302-2 - Unusual and compelling urgency	130	35	75	14	38	12	26	5	$20.81	$0.19
FAR 6.302-3 - Industrial mobilization; engineering, developmental or research capability; or expert services	10	2	8	2	5	1	2		$0.28	$0.00
FAR 6.302-4 - International agreement	3		2		1		1		$0.00	$0.00
FAR 6.302-5 - Authorized or required by statute	35	11	18	3	4		2		$.25	$0.00
FAR 6.302-7 Public interest	2		2						$0.00	$0.00
Authority not listed	38	6	33	4	7	2	3		$0.06	$0.00
Grand Total	958	132	777	69	217	53	135	25	$209.94	$19.37
Percentages		13.78 %		8.88 %		24.42 %		18.52 %		9.23 %
Sole Source (FAR 6.302-1 & 6.302-1(c))	740	78	639	46	162	38	101	20	$188.54	$19.18
		10.54 %		7.20 %		23.46 %		19.80 %		10.17 %
Percentage with values - Total							62.21 %			
Percentage with values - Sole Source							62.35 %			

REFERENCES

Bajari, P., & Tadelis, S. (2001). Incentives versus Transaction Costs: A Theory of Procurement Contracts. *The Rand Journal of Economics*, 32 (3), pp. 387–407.

Berteau, D., Ben-Ari, G., & Sanders, G. (February 2009). *Structure and Dynamics of the U.S. Federal Professional Services Industrial Base*. Center for Strategic & International Studies, Defense-Industrial Initiatives Group. Washington, DC: Center for Strategic & International Studies.

Broad Agency Announcements (BAAs): CMO Contracts Management Office. (n.d.). Retrieved September 17, 2009, from DARPA Contracts Management Office Web site: http://www.darpa.mil/cmo/baa.html

Copeland, C. W. (September 30, 2008). *The Federal Workforce:Characteristics and Trends*. Congressional Research Service.

Denes, T. A. (1997). Do Small Business Set-Asides Increase the Cost of Government Contracting? *Public Amdinistration Review*, 57 (5), pp. 441–444.

Global Computer Enterprises. (September 30, 2008). *GSA Federal procurement Data System-Next Generation (FPDS-NG) Data Element Dictionary* (Vol. Version 1.3).

Government Accountability Office. (July 2004). *Contract Management Guidance Need to Promote Competition for Defense Task Orders*, GAO-04-875.

Government Accountability Office. (August 2003). *Contract Management, Civilian Agency Compliance with Revised Task and Delivery Order Regulations*, GAO-03-983.

Government Accountability Office. (November 2009). *Defense Acquisitions Further Actions Needed to Address Weaknesses in DOD's Management of Professional and Management Support Contracts*, GAO-10-39.

Home: FedBizOpps.Gov Federal Business Opportunities. (2009, September 15). Retrieved September 15, 2009, from FedBizOpps: https://www.fbo.gov/

Inspector General Department of Defense. (September 30, 2001). *Multiple Award Contracts for Services*, Report No. D-2001-189.

Inspector General United States Department of Defense. (May 6, 2009). *SeaPort Enhanced Program*, Report No. D-2009-082.

Krasnotkutskaya, E., & Seim, K. (2008, November). Bid Preference Programs and Participation in Highway Procurement Auctions.

Lamm, D. V. (1987). Why Firms Refuse DOD Business: *An Analysis of Rationale. National Contract Management Journal*, 21 (Winter), pp. 45–55.

MacManus, S. A. (Jul-Aug 1991). *Why Businesses are Reluctant to Sell to Governments. Public Administration Review*, 51 (4), pp. 228–244.

Manuel, M. S. (2009, February 2). GAO Bid Protests:Trends, Analysis, and Options for Congress, 7-5700. Congressional Research Service.

Office of Inspector General, National Aeronautics and Space Administration. (September 21, 2001). *Multiple-Award Contracts*, IG-01-040.

Office of the Deputy Under Secretary of Defense, Industrial Policy. (February, 2003). *Transforming the Defense Industrial Base: A Roadmap*. Washington, DC.

Office of the Deputy Under Secretary, Industrial Policy. (July 2008). *Competitive Services Industry, Services Body of Knowledge–FY 08 Updates.*

Office of the Inspector General, Department of Defense. (April 2, 1999). *DoD Use of Multiple Award Task order Contracts*, Report 99-116.

Randall, S. O. (1997, December). An Analysis of Reason Commercial Entities Prefer Not to Participated in Defense Business. Monterey, California.

Stott, B., & Zlomislic, O. (2004, June 21). Single-Bid Awards under the GSA Service Schedules. Thesis, Harvard University.

U.S. Small Business Administration. (n.d.). Retrieved December 1, 2009, from SBA Programs 8(a) Business Development Programs FAQs: http://www.sba.gov/aboutsba/sbaprograms/8abd/faqs/index.html

Wong, M. M. (2006, September). Current Problems with Multiple Award Indefinite Delivery/Indefinite Quantity Contracts: A Primer. *The Army Lawyer*, pp. 17–30.

ABBREVIATIONS

B	billion
BAA	Broad Agency Announcement
CR	Construction related
CRS	Congressional Research Service
CSIS	Center for Strategic & International Studies
DMDC	Defense Manpower Data Center
DOD	Department of Defense
DPAP	Defense Procurement and Acquisition Policy
ER	Equipment Related
FAR	Federal Acquisition Regulations
FPDS-NG	Federal Procurement Data System-Next Generation
FR	Facilities Related
GAO	Government Accountability Office
ICT	Information and Communications Technology
IDA	Institute for Defense Analyses
IDV	Indefinite Delivery Vehicle
IG	Inspector General
IP	Industrial Policy
J&A	Justification and Approval
K	thousand
M	million
Med	Medical
MSPA	Management Support, Professional and Administrative
OSD	Office of the Secretary of Defense
OUSD(AT&L)	Office of the Under Secretary of Defense (Acquisition, Technology and Logistics)

PSC	Product or Service Code
R&D	Research and Development
RDT&E	Research, Development, Test & Evaluation
RFP	Request for Proposal
SAT	Simplified Acquisition Threshold
SBIR	Small Business Innovation Research
Trans	Transportation

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
xx-03-2010	Final	Jul 2008 - Mar 2010

4. TITLE AND SUBTITLE

Competitiveness in the Services Sector

5a. CONTRACT NUMBER

DASW01-04-C-0003

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

Williams, Laura M.
Rose, Susan L.
Rehwinkel, Andrew S.

5d. PROJECT NUMBER

5e. TASK NUMBER

AH-7-2982

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Institute for Defense Analyses
4850 Mark Center Drive
Alexandra, VA 22311-1882

8. PERFORMING ORGANIZATION REPORT NUMBER

IDA Paper P-4542

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Office of the Deputy Under Secretary of Defense (Industrial Policy)
241 18th Street South
Crystal Square 4, Suite 501
Arlington, VA 22202

10. SPONSOR/MONITOR'S ACRONYM(S)

ODUSD (IP)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

This paper examines the circumstances and considerations under which DOD service sector contracts receive single offers or are awarded sole source. In particular, it examines whether the prevalence of single offer and sole source contracts in DOD services represents an industrial base concern, such as a lack of qualified firms or significant barriers to entry. The study team reviewed the literature, conducted interviews, and analyzed the data. We did not find evidence of a lack of qualified firms or significant barriers to entry. We found that single offers are much less prevalent than they originally appeared, as many receive some level of competition. Furthermore, we found no clear systemic cause of single offers. A substantial portion of sole source contracts are short-term contracts caused by delays in the procurement process. These delays may originate in the requiring agency or the contracting office, or they may arise from protests.

15. SUBJECT TERMS

Single Offer; Sole Source; Bridge Contracts; Competition; Contracts; Department of Defense (DOD)

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Nelson, Bradley
Unclassified	Unclassified	Unclassified	Same as Report	78	19b. TELEPHONE NUMBER *(Include area code)* (703) 607-4059

Reset

Standard Form 298 (Rev. 8/98)
Prescribed by ANSI Std. Z39.18