JOURNAL OF PUBLIC PROCUREMENT, VOLUME 15, ISSUE 1, 1-37 SPRING 2015

IMPACT OF CONTRACT BUNDLING AND CONSOLIDATION ON DEFENSE ACQUISITION SYSTEM AND DEFENSE INDUSTRIAL BASE: THE CASE OF THE U.S. DEPARTMENT OF THE NAVY

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ABSTRACT. Despite Congressional and Presidential emphasis on reducing bundling and consolidation of defense contracts, recent studies cast doubt on whether such practices are problematic for small contractors or the defense acquisition system. Those studies proposed that bundling and consolidation are generally positive tools to procure best value. This paper tests these propositions by examining relevant U.S. Department of the Navy (DON) contracts for Fiscal Year 2010, when Congress reported record bundling and consolidation in U.S. defense contracting. Specifically, the paper looks to performance of Navy and Marine Corps buying commands in meeting small business goals and other good-government objectives such as competition, performance-based acquisitions, preference for commercial suppliers, and support for the U.S. defense industrial base. The paper recommends improvements in targeted good-government practices as measures to reduce bundling and consolidation.

INTRODUCTION

Bundling and consolidation of purchasing requirements into large-dollar, broad-scope, wide-geography contacts is commonly regarded as a major barrier to entry into the Federal, and especially the Department of Defense (DoD), procurement market (House Armed Services Committee [HASC], 2012; Kidalov, 2011). Since 1997, Congress and Presidential administrations championed a series of laws and policies to restrict these practices to instances of

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documented and unavoidable business necessity (Kidalov, 2011). While the DoD and its component Department of the Navy (DoN) adopted numerous regulations over the years to reduce bundling and consolidation (DFARS Subpart 207.1, 2010; NMCARS Subpart 5207.1, 2010), the Government Accountability Office (GAO) has confirmed that these practices have continued in recent years. (GAO, 2013). Academic research done a decade ago strongly supported the need for tough anti-bundling initiatives in order to enhance small business opportunities and promote competition. (Small Business Administration, Office of Advocacy [SBA Advocacy], 2002 and 2000). However, some recent studies cast doubt on whether consolidation and bundling are problems for small business contractors (Moore et al., 2008; Nerenz, 2007; General Accounting Office [GAO], 2004). In particular, two recent studies suggested that bundling and consolidation may be positive or even best-practice purchasing activities with major benefits for the defense acquisition system or supplier base (Moore et al., 2008; Nerenz, 2007). This study attempts to resolve the conflict among those prior studies by analyzing data on bundled and consolidated contracts awarded by the DoN during fiscal year (FY) 2010 (FPDS 2011) as reported in the Federal Procurement Data System–Next Generation (FPDS-NG). FY2010 was specifically chosen because, according to the HASC Panel on Business Challenges within the Defense Industry, the combined volume of bundling and consolidation in U.S. defense contracting reported that year reached a recent 6-year record of 224 contracts worth $21.1 billion (HASC, 2012); of those, the DoN reported share was 44 contracts (about 20%) worth well over $0.8 billion (about 4%). This study addresses these contracts' features, the buying commands' actions, and those commands' records on achieving small business contracting goals in order to resolve the conflicts between the above-referenced studies.

BUNDLING AND CONSOLIDATION: THE LEGAL FRAMEWORK

Contract bundling and consolidation are regulated by a complementary legal framework. Initially, contract bundling was recognized as an implied cause of action invoked under the Competition in Contracting Act of 1984 (CICA) to protest contract solicitations as unduly restrictive of competition (Kidalov, 2011). Eventually, beginning with the Small Business Reauthorization Act of

1997 and continuing with the National Defense Authorization Act for Fiscal Year 2004, Congress passed and Presidents Bill Clinton and George W. Bush signed two laws establishing specific criteria to limit and regulate bundling and consolidation (Kidalov, 2011; Manuel, 2010). For reasons of data validity and regulatory implementation delays (GAO, 2013), this study does not address the effects of any post-FY2010 legislative or regulatory changes, such as changes in various dollar thresholds or recodifications of Title 10 legislation into the Small Business Act. Rather, this study reflects only the laws and policies existing at the time. The legal concepts of bundling and consolidation substantially overlap, although "the rules that apply to bundling are more restrictive" (Department of Defense, Office of Small Business Programs [DoD OSBP], 2007, p. 1-4). "In the most general terms, for DoD, a consolidation is the combining of two or more previous contracts into a single solicitation, and a bundled contract is a consolidation that is unsuitable for award to a small business as a prime contractor even though one or more of the previous contracts was performed (or could have been performed) by a small business. To put it another way, a solicitation that consolidates requirements does not always bundle them, but a solicitation that bundles requirements always consolidates them." (DoD OSBP, 2007, p. 1-4).

The Small Business Reauthorization Act of 1997, codified in the Small Business Act at 15 United States Code (U.S.C.) Section 632 and implemented in Part 125 of the SBA regulations (2010), defines a *bundled contract* as "a contract that is entered into to meet requirements that are consolidated in a bundling of contract requirements." In turn, this statute defines *bundling of contract requirements* as "consolidating 2 or more procurement requirements for goods or services previously provided or performed under separate smaller contracts into a solicitation of offers for a single contract that is likely to be unsuitable for award to a small-business concern due to—(A) the diversity, size, or specialized nature of the elements of the performance specified; (B) the aggregate dollar value of the anticipated award; (C) the geographical dispersion of the contract performance sites; or (D) any combination of the factors described in subparagraphs (A), (B), and (C)." The term *separate smaller contract* is defined in Section 632 as "a contract that has been performed by 1 or more small business concerns or was suitable for award to 1 or more small business concerns." Factors specified in the Small Business Act as those "that might cause unsuitability for award to small business" include "the diversity, size, or specialized nature" of performance called for in the contract, the total dollar value of the contract, the geographic spread of performance, or a combination of these factors (U.S. Code, 2010). "Substantial bundling" of defense contracts at over $7.5 million requires identification of alternative buying strategies and additional reviews (Federal Acquisition Regulation [FAR], 2010, 7.104).

The contract consolidation law, Section 801 of the National Defense Authorization Act for Fiscal Year 2004 (2010), codified at that time in 10 U.S.C. Section 2382 and implemented at the time by the Defense Federal Acquisition Regulation Supplement (DFARS) Section 207.170-3 (2009), is not focused on prior performance by small businesses. It simply prohibits consolidation of two or more "contract requirements" totaling over $5.5 million unless the senior procurement executive of a defense agency conducts market research, identifies alternatives involving "lesser degrees of consolidation," and determines that consolidation is necessary and justified. (DFARS 2009). Section 2382 (U.S. Code, 2010) defines *consolidation of contract requirements* and *consolidation* as "a use of a solicitation to obtain offers for a single contract or a multiple award contract to satisfy two or more requirements of that [military] department, agency, or activity for goods or services that have previously been provided to, or performed for, that department, agency, or activity under two or more separate contracts smaller in cost than the total cost of the contract for which the offers are solicited" (DFARS, 2009).

Both the bundling and the consolidation statutes allow defense buyers to determine that bundling or consolidation was "necessary and justified" if they identified "measurably substantial benefits" from bundling, or if benefits from consolidation "substantially exceeding" benefits from alternatives to consolidation (U.S. Code, 2010). In both statutes, justification criteria are qualitatively identical and include cost, quality, acquisition cycle efficiencies, improved terms and conditions, and any other benefits. The difference is that bundling benefits must generally be dollarized to between 5% and 10% of the contract value, unless senior acquisition officials determine that the acquisition strategy is mission critical and provides for maximum practicable small business participation (FAR, 2009, 7.107). Title 10, Section 2382 (U.S. Code, 2010) does not require dollarized benefits. However, the DoD policy is to "strongly encourage" its buyers "to quantify the benefits" regardless of whether a contract is bundled or merely consolidated (DoD OSBP, 2007). Both statutes specify that administrative or personnel costs alone do not justify bundling unless they are either at least 10% of the contract value (the Small Business Act), or unless they are "substantial" in relation to the consolidated contract value (the contract consolidation law) (U.S. Code, 2010). Finally, bundling limitations apply only to contracts awarded or performed in the U.S., and only to contracts not awarded as small business set-asides; contract consolidation limitations apply worldwide to small and large business contracts alike, including to new work (DoD OSBP, 2007).

METHODS: RECENT STUDIES AND KEY RESEARCH PROPOSITIONS

Review of research literature shows that contract bundling and consolidation have received scant research evaluation. Over the last decade, only four major studies addressed the subject: the 2002 Small Business Administration Office of Advocacy (SBA Advocacy) study performed by Eagle Eye Publishers Inc., *The Impact of Contract Bundling on Small Business* as well as its 2000 predecessor study by the same title which was performed and published by the same organizations but was more time-limited in scope; the 2004 GAO report *Contract Management: Impact of Strategy to Mitigate Effects of Contract Bundling on Small Business Is Uncertain*; the 2007 Nerenz article, *Government Contract Bundling: Myths and Mistaken Identity* (reporting his 2006 study); and the 2008 Rand report authored by Moore, Grammich, DaVanzo, Held, Coombs, and Mele, *Enhancing Small Business Opportunities in the DoD*. Only the latter study discussed both bundling and Section 2382 consolidation. While the 2002 study found contract bundling and consolidation detrimental for small firms and the acquisition system overall, the 2007–2008 studies made contrary propositions, and the 2004 study appeared non-committal.

As a matter of law, records in Federal procurement databases are subject to a presumption of regularity that can be overcome only with clear and convincing evidence, also described as "well-nigh irrefragable proof" standard. (CFC, 2011; 2010; 2006). The GAO's research subsequent to the above four studies has challenged the regularity of Federal agencies' bundling and consolidation records as both under- and over-inclusive, but ultimately has not generated probative data or a methodology for obtaining it. Specifically, in 2013, the GAO conducted another bundling and consolidation study covering FY2011 and FY2012, *Small Business Contracting: Updated Guidance and Reporting Needed for Consolidated Contracts.* Unlike the above-mentioned studies, the 2013 study mostly focused on a judgemental sample (and subsamples) of DoD bundled and consolidate contracts and not on all 274 such contracts reported in FPDS DoD-wide. Ultimately, the GAO concluded that its chosen sample "could not be generalized to the universe of consolidated contracts identified via FPDS-NG in Fiscal Years 2011 and 2012." (GAO, 2013, p. 23). The GAO also argued for judgemental additions to its sample of at least 4 contracts not reported by DoD in FPDS, and further noted that data subsequent to FY2010 suffered from inconsistently implemented or delayed regulatory changes set to commence in FY2011. (GAO, 2013). The 2013 GAO report has not challenged the HASC's reliance on bundling and consolidation designations in the FY2010 data, however. Thus, to date, the FY2010 FPDS data remains a valid subject of inquiry.

Proposition 1. Contract bundling is not a serious obstacle to small business participation in government/defense contracting

The SBA Advocacy study asserted that contract bundling was rampant, involving well over 34,000 contract actions and driving approximately 15,000 small firms out of business (SBA Advocacy, 2002). It found the following trend: "In FY 2001 both the number of bundled contracts and the amount of bundled contract dollars were the highest in 10 years. . . . In FY 2001 bundled contracts accounted for 16.4 percent of the reported 177,000 prime contracts and 51 percent of all reported prime contract spending" (SBA Advocacy, 2002, p. 4). That study's conclusion that contract bundling was a serious problem for small firms was later adopted by the White House Office of Federal Procurement Policy (OFPP, 2002). However, three subsequent studies have cast doubt on the SBA Advocacy's methodology and/or conclusion. The Moore et al. (2008, p. 40) study suggested that contract bundling and consolidation at the DoD "will lead to fewer small business contracts" but implied that they were presently insubstantial problems for small firms. In support, the Moore et al. study cited Federal Procurement Data System (FPDS) data showing that neither bundling nor consolidation amounted to more than 2% of DoD contract awards or contract dollars during FY2001–FY2007 (Moore et al., 2008). The Moore study observed that consolidation/bundling “practices may have mixed results for small-business opportunities, reducing the number of small businesses receiving prime contracts but possibly providing them the same total dollars” (Moore et al., 2008, p. 23). The Moore et al. (2008) study also cited the Nerenz (2007) study, which found that contract bundling was protested at less than 2% of all bid protests filed at the GAO during the years 1995–2004. Both the Moore et al. (2008) and Nerenz (2007) studies suggested that the SBA Advocacy study was drastically over-inclusive. Nerenz (2007) also noted that the SBA Advocacy study used a broad extra-statutory definition of bundling. The GAO 2004 report found that the DoD awarded almost 3,400 FY2002 contracts, which exceeded its substantial bundling threshold, accounting for over 75% of DoD prime contracting dollars. However, the GAO (2004) was able to validate bundling designation for only 8 contracts out of 24 reported by the agencies to the GAO and the 928 reported by the agencies to FPDS; the GAO did not provide their dollar value or share of DoD contracts. Nine years, later, the GAO (2013) initially reported 274 consolidated and/or bundled contracts at DoD (including DoN) during FY2011-2012 without reporting overall value; of those, the GAO specifically rejected 45 designations, potentially expanded 30 designations to be bundled as well as consolidated, added 4 actions, and ultimately deemed the resulting number to be unreliable in terms of inclusion or exclusion. The GAO observed that small firms received slightly over half (52 percent) of a judgemental subsample of DOD consolidated contract awards, and highlighted possible substantial under-reporting of bundled awards that included prior small business work; in the end, the GAO refused to extrapolate generalized trends from this data. (GAO, 2013). The GAO (2013) also reported a set of 358 two-year government-wide consolidated contracts valued at approximately $3.58 billion, but deemed that reporting unreliable.

Proposition 2. Small firms lack the capability to perform legitimately combined military/government needs, and so are properly excluded from bundled or consolidated contracts

This proposition reflects current law, as noted previously. Its strongest proponent was the Nerenz (2007) article, which suggested that all bundling not protested by small businesses and/or not approved by the Small Business Administration (SBA) was at least presumptively proper and so properly excluded small firms. The 2004 GAO study did not address this proposition, simply finding that most agencies reported that they did not engage in bundling (GAO, 2004). The SBA Advocacy (2002) study challenged this proposition only indirectly. It defined a bundled contract simply as one that "incorporates dissimilar activities" and lowered the definition of a substantially bundled contract to $1 million, but it did not address when such contracts may be justified or necessary (SBA Advocacy, 2002, p. 52). As a result, the SBA Advocacy (2002) study included a substantial volume of contracts awarded to small businesses into its data of bundled contracts—thereby showing that small firms have the capabilities to perform at least some combined requirements. On the other hand, the Moore et al. (2008) study suggested that small businesses were excluded from consolidated DoD contracts because of large firms' capabilities to meet customer needs such as Performance-Based/Life-Cycle Logistics on service contracts, systems-of-systems engineering in weapons contracts, and because of business choices of major aerospace and defense manufacturers to outsource work. The Moore et al. (2008) study recommended that the DoD "may wish to consider where small businesses can best contribute to innovation, including at Tier 1 or lower-level suppliers" (Moore et al., 2008, p. 27). In a more recent report, the GAO found that approximately one-fifth of DoD justifications for bundling or consolidations often have not received appropriate level of approval (or any approval at all). (GAO, 2013).

Proposition 3. Except for alleged problems for small businesses, contract bundling and consolidation provide an overall benefit to the defense acquisition system

The Moore et al. (2008) study was the strongest proponent of this proposition. It asserted that contract bundling is driven by two influences of commercial practices used by the industry to enhance efficiencies and improve performance:

> The first, prevalent in supply chain purchases, is . . . achieving superior quality, responsiveness, and lower total costs through supply chain transformation. . . . [A]s manufacturers have sought to reduce waste through "lean" practices such as minimal inventory, "just-in-time" supply, and use of fewer, larger, and

> more complex assemblies, they have also sought to use a smaller, more stable supply base that is well integrated with product design and synchronized with manufacturing. . . . Leading commercial firms, and the federal government, have similarly sought to develop strategic sourcing . . . Focusing on longer-term relationships with these suppliers can also improve quality in the supply chain. (Moore et al., 2008, p. 20-21)

"The second influence on commercial practices is the grouping of goods and services together into one offering, particularly as a company's goods become more like commodities with lower profits and their services (e.g., repairs) for these goods become more profitable." (Moore et al., 2008, p. 23). Such contract structure, supposedly, "guarantees a level of operational performance and charges the customer a fee based on the hours" the manufactured product is used. (Moore et al., 2008, p. 23). "Similarly, the DoD may expect its leading suppliers to offer more goods and services grouped together for purchase such as those it seeks for performance-based logistics" (Moore et al., 2008, p. 23). As stated previously, the Moore et al. (2008) study concluded that these commercial practices led the DoD to adopt Performance-Based Logistics, Strategic Sourcing, Total Life Cycle Systems Management, and similar measures to cut costs and increase performance of government contractors, and claimed that best practices in the area of cost-cutting and performance were at odds with increased small business participation. The Moore et al. (2008) study called on the DoD to track consolidation in the private sector so as to explain or justify consolidation in DoD contracts (Moore et al., 2008).

The contrary position was taken by the SBA Advocacy in its 2002 study as well as in its original 2000 bundling study that was updated by its 2002 study. In particularly, the 2000 study asserted that "the growing lack of diversity and stratification in the federal industrial base being fueled by bundling will have long term and detrimental consequences to the government's ability to procure needed services and supplies at competitive prices" (SBA Advocacy, 2000, p. 41-42), while the 2002 study argued that although bundling "may appear to make the process of purchasing more efficient, the long-term costs associated with reduced competition and limited choice loom on the horizon" (SBA Advocacy, 2002, p. 7). However, SBA Advocacy did not specifically test this assertion in terms of analyzing the impact of bundling on competition or performance across the acquisition system. The 2004 GAO study, similarly, did not address systemic effects of bundling but claimed that FPDS data was not accurate or sufficient to do so (GAO, 2004). On the other hand, Nerenz (2007) argued that low bid protest filings challenging bundled contracts government-wide (less than five bundling protest filings in the years 1995–2004) in comparison with the annual rate of protests filed (1,300 to almost 3,000 total protest filings per year) showed either that bundling was extremely rare or that all bundling that was not protested was appropriate and useful (Nerenz, 2007). The GAO (2013) report suggested that dollarized benefits were not invoked in 28 percent of DoD and 45 percent of DoN FY2011-2012 reviewed consolidated contract awards; again, the GAO refused to extrapolate these findings as explanatory for the general universe of such DoD, DoN, or government-wide contracts.

Accordingly, this study addresses three research questions that test the three key propositions discussed above:

1. Are contract bundling and consolidation serious obstacles to small business participation in government/defense contracting?
2. Are small firms excluded from reportedly bundled or consolidated contracts on good-business grounds, e.g., that such firms lack the capability to perform the combined government/defense needs?
3. Does bundling and consolidation (as reported) generally provide an overall benefit to the defense acquisition system?

This study's hypothesis is that the SBA Advocacy's negative assessments of the effect of bundling and consolidation on small firms and government operations were essentially sound, even though the SBA Advocacy's 2000 and 2002 studies were hampered by an over-inclusive definition of bundling. This hypothesis is tested using the DoN buyers' own designations (and applications of laws and policies) of contracts as bundled or consolidated within the FPDS database. While the GAO recently renewed its criticism of official FPDS reporting of bundled and consolidated contracts as both under- and over-inclusive, the GAO did confirm continued bundling and consolidation at the DoN in at least the two subsequent Fiscal Years. (GAO, 2013).

DATA FINDINGS AND ANALYSIS: TESTING KEY PROPOSITIONS

Finding I. High-Value Contract Bundling is Symptomatic of Below-Average Small Business Contracting Performance by Navy Commands

Although Nerenz (2007) and Moore et al. (2008) strongly criticized bundling and/or consolidation as overblown problems for small businesses in the Federal market, neither study examined whether a relationship exists between bundling/consolidation and achieving small business goals. Data shows that this relationship exists. According to FPDS (2011), during FY2010, total Department of the Navy contracts reported as bundled and consolidated amounted to $831,948,735.18. Table 1 illustrates bundling and consolidation activity by Navy Department commands which described themselves in FPDS as having engaged in such activity. The top commands reportedly engaging in bundling and consolidation are Naval Facilities Engineering Command (NAVFAC) Europe & Southwest Asia and Commander of the Marine Corps Systems Command (MARCORCYSCOM), which together accounted for over 52% of bundled and consolidated contract dollars. Commands in the middle tier for bundling and consolidation are NAVFAC Engineering and Expeditionary Warfare Center (EXWC), Naval Supply Systems Command (NAVSUP) Fleet Logistics Center Norfolk, NAVSUP Weapon System Support Mechanicsburg, Naval Surface Warfare Center Crane, Space and Naval Warfare Systems Command (SPAWAR), and Strategic Systems Programs, together accounting for over 38% of the value of bundled and consolidated contracts. The lowest levels of bundled and consolidated awards took place at Naval Air Systems Command (NAVAIR); Naval Sea Systems Command (NAVSEA) Headquarters (HQ); NAVFAC Southeast, Southwest, and Hawaii; and NAVSUP Weapons Systems Support Philadelphia, together accounting for a little less than 9% of the value of bundled and consolidated contracts.

Within the DoN, the overall small business share of contract dollars amounted to 15.99% in FY2010 (without data adjustments that is or may be undertaken for statutory goaling purposes). Commands that did not report engaging in bundling or consolidation showed a 32.78% small business share—more than doubling DoN performance. In contrast, commands which engaged in bundling or consolidation collectively demonstrated small business performance

TABLE 1
Bundling and Consolidation Activity Reported by Command

Command	Contracts Value	Command Share
Naval Facilities Engineering Command (NAVFAC) Europe and South-West Asia Sigonella, Italy	$274,320,944	32.97%
Commander, Marine Corps Systems Command (MARCORSYSCOM) Quantico, VA	$162,533,621	19.54%
Top (Double-Digit) Tier Subtotal:	**$436,854,565**	**52.51%**
Naval Surface Warfare Center (NSWC) Crane, IN	$81,871,194	9.84%
Naval Supply Systems Command (NAVSUP) Weapon Systems Support Mechanicsburg, PA	$79,342,491	9.54%
Strategic Systems Programs (SSP), Washington, DC	$49,437,854	5.94%
Naval Facilities Engineering Command (NAVFAC) Engineering and Expeditionary Warfare Center (EXWC), Port Hueneme, CA	$46,353,072	5.57%
Space and Naval Warfare Systems (SPAWAR) San Diego, CA	$32,111,172	3.86%
Naval Supply Systems Command (NAVSUP) Fleet Logistics Center (FLT LOG CTR) Norfolk, VA	$32,036,988	3.85%
Middle (2-10%) Tier Subtotal:	**$321,152,771**	**38.6%**
Naval Sea Systems Command Headquarters (NAVSEA HQ) Washington, DC	$16,120,500	1.94%
Naval Supply Systems Command (NAVSUP) Weapon Systems Support Philadelphia, PA	$15,538,154	1.87%
Naval Facilities Engineering Command (NAVFAC) Hawaii, Pearl Harbor, HI	$13,760,057	1.65%
Naval Facilities Engineering Command (NAVFAC) Southwest, San Diego, CA	$11,714,772	1.41%
Naval Facilities Engineering Command (NAVFAC) Southeast, Panama City, FL	$10,037,000	1.21%
Naval Air Systems (NAVAIR) Command Patuxent (Pax) River, MD	$6,770,916	0.81%
Low Tier (Under 2%) Subtotal:	**$73,941,399**	**8.89%**
Grand Total	**$831,948,735**	**100.00%**

at half of the DoN average: only 7.69%. For individual commands, this correlation is not linear. However, all seven commands that engaged in bundling or consolidation and also performed below DoN-wide small business share (i.e., MARCORSYSCOM, SPAWAR, NAVSUP Weapons Systems Support Philadelphia, NAVSEA HQ, Strategic Systems Programs, NAVAIR SYSCOM Pax River, and NAVFAC Europe and Southwest Asia (EUR SWA)) together accounted for 66.93%, or about two thirds of the DoN's total bundled and consolidated dollars. The other seven commands exceeded DoN small business performance and accounted for only one third of total bundled and consolidated dollars. Thus, high volumes of reported bundling and consolidation are associated with low command-level performance on small business contract spending. Table 2 illustrates small business contracting performance of Navy Department commands in relation to their bundling and consolidation activity.

TABLE 2
Bundling/Consolidation and Command Small Business Performance

Command	Total Dollars Awarded	Large Biz Dollars	Small Biz Dollars	Small Biz Share (%)
Naval Facilities Engineering Command (NAVFAC) Hawaii, Pearl Harbor, HI	321,095,593	150,609,557	168,736,586	52.55
Naval Facilities Engineering Command (NAVFAC) Southeast, Panama City, FL	1,086,557,539	601,447,213	487,471,602	44.86
Naval Facilities Engineering Command (NAVFAC) Engineering and Expeditionary Warfare Center (EXWC), Port Hueneme, CA	506,172,068	299,616,301	186,585,514	36.86

TABLE 2 (Continued)

Command	Total Dollars Awarded	Large Biz Dollars	Small Biz Dollars	Small Biz Share (%)
Naval Facilities Engineering Command (NAVFAC) Southwest, San Diego, CA	2,715,588,130	1,899,717,321	793,759,462	29.23
NAVSUP Weapon Systems Support, Mechanicsburg, PA	1,074,217,228	770,910,414	$300,582,708	27.98
Naval Supply Systems Command (NAVSUP) Fleet Logistics Center (FLT LOG CTR) Norfolk, VA	1,775,484,225	1,119,896,031	$412,444,749	23.23
Naval Surface Warfare Center (NSWC) Crane, IN	1,400,599,910	1,137,087,935	256,363,949	18.30
Commander, Marine Corps Systems Command (MARCORSYSCOM) Quantico, VA	7,183,482,758	6,043,542,234	$1,091,532,717	15.20
Space and Naval Warfare Systems (SPAWAR) San Diego, CA	2,616,862,293	2,434,239,815	181,038,680	6.92
Naval Supply Systems Command (NAVSUP) Weapon Systems Support Philadelphia, PA	1,944,930,431	1,875,723,849	60,103,424	3.09
Naval Sea Systems Command Headquarters (NAVSEA HQ) Washington, DC	16,910,837,271	15,749,252,024	474,239,900	2.80
Strategic Systems Programs (SSP), Washington, DC	1,937,492,455	1,491,199,854	54,055,063	2.79

TABLE 2 (Continued)

Command	Total Dollars Awarded	Large Biz Dollars	Small Biz Dollars	Small Biz Share (%)
Naval Facilities Engineering Command (NAVFAC) Europe and South-West Asia Sigonella, Italy	230,422,260	$229,535,685	815,763	0.35
Naval Air Systems (NAVAIR) Command Patuxent (Pax) River, MD	19,171,866,232	19,107,361,077	59,002,647	0.31
All Commands with Reported Bundling or Consolidation	**58,875,608,393**	**52,910,139,310**	**4,526,732,764**	**7.69**
All Commands without Reported Bundling or Consolidation	**28,980,314,090**	**18,720,931,456**	**9,525,462,647**	**32.87**
Department of the Navy Total	**87,855,922,483**	**71,631,070,766**	**14,052,195,410**	**15.99**

Finding 2. Typical Small Businesses in Relevant Industries Have the Capability to Perform Most Bundled or Consolidated Contracts, Suggesting That Their Exclusion Is Not Ability-Based

Based on the SBA Advocacy/OFPP methodology (OFPP, 2002), small firms would have lost contracting opportunities worth about one third of the total value of bundled or consolidated contracts. When the correct statutory definition is presumably used, the real adverse impact on small firms turns out to be much higher: between 95% and 83% of the total value of reportedly bundled and consolidated contracts. Thus, reported bundling and consolidation are major contributors to low small business participation at command level, as highlighted above.

First, data shows that small businesses were excluded from over 95% of reportedly bundled and consolidated contracts—belying any optimistic assertions that such practices do not affect small business contract spending. The reported bundling and consolidation of DoN contracts was largely concentrated among a limited group of major U.S. defense contractors and select international firms, as shown in Table 3. A total of 23 firms became the beneficiaries of 44 contracts designated as bundled or consolidated, receiving on average about two such contracts each. The top two firms, Derichebourg Multiservizi SPA and The Heil Co., received approximately $182 million, or 21.85%, and $141 million, or 16.91%, respectively. Together, they received just over $322 million, or 39% of the value of such contracts. Next, a group of nine firms—EDO Communications and Countermeasures Systems, Lockheed Martin, Sociedad Espaniola de Montajes Industriales, Interstate Electronics, Navistar Defense, LLC, Sentek Consulting, Harris Corp., La Termica SRL, and U.S. Training Center, Inc. (also known as Blackwater and Academi)—received between two and 10% of such contracts each and collectively received 49.36% of such contracts, or almost $411 million. Another group of nine firms—BAE Systems Land & Armaments, Tetra Tech, W.G. Yates & Sons Construction, Bell Boeing Joint Project Office, Triton Marine Construction, Multinational Logistic Services, Lockheed Martin Services, United Infrastructure Projects FZCO, Radiology Services of Hampton Roads, Avis Rent-a-car, and Hawaiian Dredging Construction—received less than 2% each, or a total of about 12% or a little under $99 million. Just two firms—Radiology Services and Sentek—which received just $38 million, or 4.54% of contracts, were coded as small businesses. (No size or coding verification was made in this study.)

Second, data shows that typical small businesses in relevant industries have the capability to perform about 83% of reportedly bundled and consolidated Navy Department contracts. A key *de facto* measure of typical small business capability to perform a contract is the SBA size standards, under which firms are measured for conformance with size caps established on either an employee or revenue basis depending on their particular industry or industries. Since 1997, contracting officers have relied on the SBA's size standards tied to the North American Industrial Classification System ("NAICS") "to determine the type of industry in which a company is participating" (Kidalov, 2011). Specifically, under SBA regulations, Contracting Officers are responsible for choosing the NAICS code that best describes the "principal purpose" of the product or service acquired. The basis for this decision is subject to a complex six-factor test [then in effect], which includes (1) "industry descriptions" in the

NAICS Manual, (2) description of the product or service in solicitation documents, (3) "value and importance" of the procurement's components, (4) functions of products and services procured, (5) prior procurement classifications in similar purchases, and (6) the

TABLE 3
Contractors Benefiting from Bundling and Consolidation

Beneficiaries of Reported Bundling and Consolidation		
Contractors	**Contracts Value**	**Share (%)**
Hawaiian Dredging Construction Company, INC.	5,574,000	0.67
Avis Rent A Car	5,638,320	0.68
Radiology Services of Hampton Roads LLC (coded as small business)	*5,674,322*	*0.68*
United Infrastructure Projects FZCO	5,905,588	0.71
Lockheed Martin Services INC	6,770,916	0.81
Raytheon Company	6,935,563	0.83
Multinational Logistic Services LTD	7,652,6112	0.92
Triton Marine Construction Corp.	8,186,057	0.98
Bell Boeing Joint Project Office	8,602,591	1.03
W. G. Yates & Sons Construction Company	10,037,000	1.21
Tetra Tech EC, INC.	11,714,772	1.41
BAE Systems Land & Armaments, L.P.	16,120,500	1.94
Lower Tier (Under 2%) Subtotal:	**98,812,240**	**11.87**
U.S. Training Center, INC.	18,710,055	2.25
LA Termica SRL	21,000,000	2.52
Harris Corporation	21,862,016	2.63
Sentek Consulting Incorporated (coded as small business)	*32,111,172*	*3.86*
Navistar Defense LLC	46,353,072	5.57
Interstate Electronics Corporation	49,437,854	5.94
Sociedad Espaniola de Montajes Industriales SA	60,000,000	7.21
Lockheed Martin Corporation	79,342,491	9.54
EDO Communications and Countermeasures Systems INC.	81,871,194	9.84
Middle (2-10%) Tier Subtotal:	**410,687,854**	**49.36**
THE HEIL CO.	140,671,605	16.91
Derichebourg Multiservizi SPA	181,777,036	21.85
Top (Double-Digit) Tier Subtotal:	**22,448,641**	**38.76**
Grand Total	**831,948,735**	**100.00**

purposes of the Small Business Act. A procurement is usually classified according to the component that accounts for the greatest percentage of contract value (Kidalov, 2011; SBA Regulations, 2009).

Each NAICS code has a matching small business size standard based on either employment or revenue. "SBA's employee-based caps are calculated prior to each representation or certification of small business size based on the average number of employees for each pay period 'over the preceding 12 months.' Part-time or temporary employees count the same as full-time employees. Total average employees of all entities considered affiliated with the enterprise that have been employed by those affiliates over the preceding twelve-month period (even if affiliation arose more recently) are included in the count" (Kidalov, 2011, p. 464).

Table 4 illustrates the Navy Department's bundling and consolidation needs by NAICS Codes, 17 in all. In terms of classifying bundled and consolidated awards by NAICS Code, over $426 million, or 51% of the value, went to firms in just three NAICS categories: Facilities Support Services at almost 22%, Metal Tank (Heavy Gauge) Manufacturing, at almost 17%, and Radio & Television Broadcasting and Wireless Telecommunications Equipment Manufacturing, at about 12.5%, for a total of about $426 million. Mid-range NAICS categories, Engineering Services, Bare Printed Circuit Board Manufacturing, Commercial & Institutional Building Construction, Heavy Duty Truck Manufacturing, Industrial Building Construction, accounted for just under $323 million, or about 39%. Low-range NAICS categories, Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing, accounted for just under $83 million, or about 10%.

There is no official SBA cross-reference between employment and revenue-based size standards, which makes it difficult for government buyers to determine whether capable small firms are available. However, a suitable cross-reference may be established based on the SBA's official number of small business contracting dollars per job supported, as reported in the SBA's official 2010 *Annual Performance Report* (2011). In FY2010, the SBA job support goal was $141,252.69 in Federal small business contract expenditures per job (SBA, 2011). Out of 17 NAICS categories in which bundled and consolidated contracts were awarded by the DoN, the average value of such contracts in 14 NAICS categories was lower

TABLE 4
Bundling/Consolidation Needs by (Predominant) NAICS Code

Reported Bundling and Consolidation Needs by NAICS Code		
(Predominant) NAICS Code Descriptions	Total Contracts Value	Share (%)
Passenger Car Leasing	5,638,320	0.68
Pharmaceutical Preparation Manufacturing	5,674,322	0.68
Aircraft Manufacturing	6,770,916	0.81
Port and Harbor Operations	7,652,611	0.92
Remediation Services	11,714,772	1.41
Other Heavy and Civil Engineering Construction	13,760,057	1.65
Other Aircraft Parts and Auxiliary Equipment Manufacturing	15,538,154	1.87
Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	16,120,500	1.94
Lower Tier (Under 2%) Subtotal:	**82,869,652**	**9.96**
All Other Miscellaneous Schools and Instruction	18,710,055	2.25
Industrial Building Construction	21,000,000	2.52
Heavy Duty Truck Manufacturing	46,353,072	5.57
Commercial and Institutional Building Construction	75,942,588	9.13
Bare Printed Circuit Board Manufacturing	79,342,491	9.54
Engineering Services	81,549,026	9.80
Middle (2-10%) Tier Subtotal:	**322,897,232**	**38.81**
Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	103,733,210	12.47
Metal Tank (Heavy Gauge) Manufacturing	140,671,605	16.91
Facilities Support Services	181,777,036	21.85
Top (Double-Digit) Tier Subtotal:	**426,181,851**	**51.23**
Grand Total:	**831,948,735**	**100.00**

than the SBA size standard cap (or its equivalent for employee-based size standards). This translated to over $591 million in contract spending, or 71% of the value of bundled and consolidated contracts, that could have gone to small firms. In two other categories, All Other Miscellaneous Schools and Instruction along with Metal Tank (Heavy Gauge) Manufacturing, the average contract value was within three times and two times the value of the size standard cap. This translated to over $100 million in contract spending, or 12% of the value of bundled and consolidated contracts, that could have gone to small firms (or teams of small firms). Only in one NAICS category—Engineering Services—was the average contract size within 10 times the size standard cap. This amounts to over $140 million, or just under 17%, of the total value of bundled and consolidated contracts. Thus, individual small firms were capable of performing the vast majority of bundled and consolidated contracts. In two categories, teams or joint ventures of two or three small businesses were capable of performing bundled and consolidated contracts (OFPP, 2002). In one category, teaming or joint venturing would have been difficult to secure because it would have required the participation of up to 10 small firms. Even then, small firms could have participated in that category's contracts under the DoD Mentor-Protégé Program agreements with large businesses per DFARS Subpart 219.71 (2010). Figure 1 illustrates small business capabilities to perform reportedly bundled and consolidated Navy Department contracts in summary form in Figure 1, while Table 5 matches small business capabilities to average size of a reportedly bundled or consolidated contract and the relevant SBA size standard, including the number of small firms that might be expected to perform the contract.

FIGURE 1
Summary of Typical Small Business Capabilities to Perform Average Reported Bundled or Consolidated Contracts

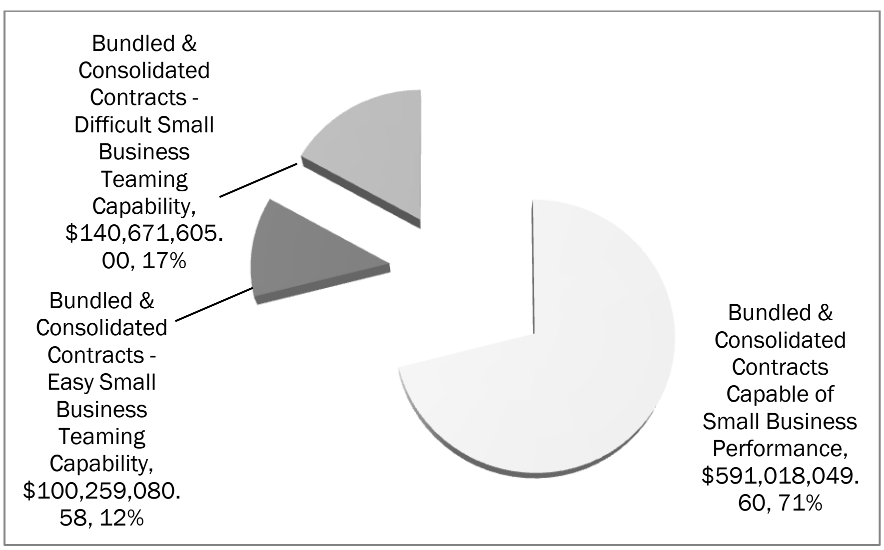

TABLE 5
Small Business Capabilities to Perform Reportedly Bundled and Consolidated Contracts

NAICS Code Descriptions	Average Contract Value ($)	Current Size Standard	Based Size Standard*($)	Small Biz Team Size
Aircraft Manufacturing	6,770,916	1,500 employees	211,879,035	1
All Other Miscellaneous Schools and Instruction	18,710,055	**$7,000,000**	**7,000,000**	**3**
Bare Printed Circuit Board Manufacturing	39,671,245	500 employees	70,626,345	1
Commercial And Institutional Building Construction	12,657,098	$33,500,000	33,500,000	1
Engineering Services	40,774,513	**$4,500,000**	**4,500,000**	**10**
Facilities Support Services	12,118,469	$35,500,000	35,500,000	1
Heavy Duty Truck Manufacturing	23,176,536	1,000 employees	141,252,690	1
Industrial Building Construction	7,000,000	$33,500,000	33,500,000	1
Metal Tank (Heavy Gauge) Manufacturing	140,671,605	**500 employees**	**70,626,345**	**2**
Other Aircraft Parts And Auxiliary Equipment Manufacturing	7,769,077	1,000 employees	141,252,690	1
Other Guided Missile And Space Vehicle Parts And Auxiliary Equipment Manufacturing	16,120,500	1,000 employees	141,252,690	1
Other Heavy And Civil Engineering Construction	6,880,028	$33,500,000	33,500,000	1
Passenger Car Leasing	5,638,320	$25,500,000	25,500,000	1
Pharmaceutical Preparation Manufacturing	5,674,322	750 employees	105,939,517	1
Port And Harbor Operations	7,652,611	$25,500,000	25,500,000	1

TABLE 5 (Continued)

NAICS Code Descriptions	Average Contract Value ($)	Current Size Standard	Based Size Standard*($)	Small Biz Team Size
Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	34,577,737	750 employees	105,939,517	1
Remediation Services	11,714,772	$14,000,000	14,000,000	1
Grand Total	18,907,926			

Source: *Based on SBA FY2010 Goal of Contract Expenditure Per Job Supported: $141,252.69

Finding 3. Reported Bundling and Consolidation Are Associated With Material and Immediate Reduction in Competition for DoN Contracts

Two prior studies blamed bundling and consolidation for eventual reductions in competition for government contracts through attrition of small business-suitable opportunities and vendor exclusions through lengthy performance terms (OFPP 2002; SBA Advocacy 2002). But, in addition to excluding small business concerns and any long-term anti-competitive effects, bundled and consolidated contracts reported in FPDS are associated with material and immediate reduction in full and open competition in the overall DoN procurement market. This association is illustrated in Table 6. Only 70% of the value of bundled and consolidated contracts was awarded pursuant to full and open competition or legally equivalent procedures. Fully over $242 million, or over 29% of the value of such contracts, was spent through sole source contracts. Another 0.7%, or approximately $5.7 million, was competed under FAR Part 13 Simplified Acquisition (2010) procedures, which require competition only to the "maximum extent practicable" and permit local area solicitations in certain circumstances.

Significantly, *all* sole source contracts were reported using either justifications or procedures based on the uniqueness of the available awardee. This suggests that sole-sourcing was actually driven by bundling or consolidating of contract requirements in the first place.

TABLE 6
Competition for Reportedly Bundled and Consolidated Contracts

Extent Competed	Contracts Value ($)	Share by Competition Method (%)
Competed under SAP	5,674,322	0.68
Full and Open Competition	583,964,220	70.19
Not Competed (Unique Available Awardee)	242,310,193	29.13
GRAND TOTAL	**831,948,735**	**100.00**

Finding 4. Reported Bundling and Consolidation Appears to Hinder the Preference for Commercial Items

The FAR (2010) established a preference for "maximizing the use of commercial products and services" in Section 1.102 and established procedures in FAR part 12 and elsewhere to implement this preference (FAR, 2010). Data shows that bundling and consolidation, as reported, appear to seriously undermine this preference. To examine what DoN actually bought, it is necessary to consider descriptive requirements taxonomy reported in FPDS through the Product and Services Codes (PSCs); DoN buyers must disclose and report this taxonomy to ensure compliance with CICA competition and transparency requirements. (GAO, 2009). Overall, DoN sourced its reportedly bundled and consolidated requirements across 24 PSCs from firms in 17 NAICS codes. By volume, the DoN's top bundling and consolidation needs were Facilities Operations Support Services at 20.39% and Lubrication & Fuel Dispensing Equipment at 16.91% of the total value of bundled and consolidated contracts, or over $310 million together. Mid-range needs for bundled and consolidated contracts were *for* Electrical and Electronic Assemblies – Boards Cards – Associated Hardware, Electronic Countermeasures & Quick Reaction Equipment, Engineering & Technical Services, Maintenance, Repairs, Alterations of Miscellaneous Buildings, and Wheeled Trucks & Tractors, together accounting for 35.52% of the total value of bundled and consolidated contracts, or about $296 million. The remaining product and service needs included Guided Missile Launchers, Miscellaneous Aircraft Accessories Components, Maintenance-Repair-Alteration of Dining Facilities, Construction – All Other Non-Building Facilities, Fire Protection Services, Hazardous Substances Removal-Clean-Up-Disposal, and Construction - Other Industrial Buildings, and account for just under 16% of bundled and consolidated dollars, or about $133 million. Table 7 illustrates bundling and consolidation of Navy Department contracts by product or service.

TABLE 7
Bundling and Consolidation Needs by Product and Service Codes

Product and Service Code (PSC) Description	Contracts Value ($)	Share (%)
Lease-Rent of Vehicles-Trailers-Cycles	5,638,320	0.68
Drugs and Biologicals	5,674,322	0.68
Maintenance-Repair-Alteration/Airport Runways	5,905,588	0.71%
Cable Cord Wire Assembly – Communication Equipment	6,530,385	0.78
Maintenance-Repair of Aircraft Components	6,770,916	0.81
Logistics Support Services	7,652,611	0.92
Construction/Other Industrial Buildings	10,037,000	1.21
Hazardous Material Removal/Clean-Up/Disposal/Operations	11,714,772	1.41
Fire Protection Services	12,175,008	1.46
Construction/All Other Non-Building Facilities	13,760,057	1.65
Maintenance-Repair-Alteration/Dining Facilities	15,000,000	1.80
Miscellaneous Aircraft Accessories Components	15,538,154	1.87
Guided Missile Launchers	16,120,500	1.94
Lower Tier (Under 2%) Subtotal:	**132,517,633**	**15.92**
Other Education & Training Services	18,710,055	2.25
Buildings & Facilities / Administrative & Service Buildings	21,000,000	2.52
Communications Security Equipment & Components	21,862,016	2.63
Program Management/Support Services	32,111,172	3.86
Maintenance-Repair-Alteration/Miscellaneous Buildings	45,000,000	5.41
Trucks and Truck Tractors, Wheeled	46,353,072	5.57
Engineering and Technical Services	56,309,048	6.77

TABLE 7 (Continued)

Product and Service Code (PSC) Description	Contracts Value ($)	Share (%)
Electrical and Electronic Assemblies-Boards Cards-Associated Hardware	72,812,106	8.75
Electronic Countermeasures & Quick Reaction Equipment	75,000,000	9.01
Middle (2-10%) Tier Subtotal:	**389,157,469**	**46.77**
Lubrication & Fuel Dispensing Equipment	140,671,605	16.91
Facilities Operations Support Services	169,602,029	20.39
Top (Double-Digit) Tier Subtotal:	**310,273,634**	**37.30**
Grand Total	**831,948,735**	**100.00**

Commercial item procedures were used *only* to procure Drugs and Biologicals, Rent – Lease of Vehicles, Logistics Support Services, and Other Education and Training Services (a turnkey Counterterrorism Training Center). Commercial item procedures were *not applicable* to Construction of Industrial Buildings and All Other Buildings, as well as Buildings and Facilities. (OFPP 2003). Several additional categories of requirements seem to be either not suitable or of questionable suitability for commercial item designation, such as Communications Security Equipment, Electronic Countermeasure & Quick Reaction Equipment, and Guided Missile Launchers. However, numerous categories appear to be good candidates for commercial item designation, including the following: Fire Protection Services; Facilities Operation Support Services; Engineering & Technical Services; Lubrication & Fuel Dispensing Equipment; Electric and Electronic Assembly - Boards Cards - Associate Hardware; Program Management & Support Services; Cable Cord Wire Assembly for Communications Equipment; Miscellaneous Aircraft Accessories Components; Maintenance and Repair of Aircraft Components; Maintenance, Repair, and Alteration of Airport Runways, of Dining Facilities, and of Miscellaneous Buildings; and Hazardous Material Removal, Clean-up Disposal, and Operations. Table 8 illustrates the impact of bundling and consolidation on commercial suppliers by Product or Service Code (PSC) description.

TABLE 8
Impact of Bundling and Consolidation on Commercial Item Suppliers

Commerciality Of Purchases	Contracts Value ($)	Share (%)
Drugs and Biologicals	5,674,322	0.68
Lease-Rent of Vehicles-Trailers-Cycles	5,638,320	0.68
Logistics Support Services	7,652,611	0.92
Other Education & Training Services	18,710,055	2.25
Subtotal: Commercial Item Procedures Used	**37,675,308**	**4.53**
Buildings & Facilities / Administrative & Service Buildings	21,000,000	2.52
Communication Security Equipment & Components	21,862,016	2.63
Construction/Other Industrial Buildings	10,037,000	1.21
Construction/All Other Non-Building Facilities	13,760,057	1.65
Electronic Countermeasure & Quick Reaction Equipment	75,000,000	9.01
Guided Missile Launchers	16,120,500	1.94
Subtotal: Commercial Item Procedures Inapplicable or Likely Inapplicable:	**157,779,573**	**18.96**
Cable Cord Wire Assembly - Communication Equipment	6,530,385	0.78
Electric and Electronic Assembly - Boards Cards - Associated Hardware	72,812,106	8.75
Engineering and Technical Services	56,309,048	6.77
Facilities Operations Support Services	169,602,029	20.39
Fire Protection Services	12,175,008	1.46
Hazardous Material Removal/Clean-Up/Disposal/Operations	11,714,772	1.41
Lubrication & Fuel Dispensing Equipment	140,671,605	16.91
Maintenance-Repair of Aircraft Components	6,770,916	0.81
Maintenance-Repair-Alteration/Airport Runways	5,905,588	0.71
Maintenance-Repair-Alteration/Dining Facilities	15,000,000	1.80
Maintenance-Repair-Alteration/Miscellaneous Buildings	45,000,000	5.41
Miscellaneous Aircraft Accessories Components	15,538,154	1.87
Program Management/Support Services	32,111,172	3.86
Trucks and Truck Tractors, Wheeled	46,353,072	5.57
Subtotal: Commercial Item Procedures Likely Applicable, But Not Used	**636,493,854**	**76.51**
Subtotal: Commercial Item Procedures Not Used	**794,273,427**	**95.47**
Grand Total:	**831,948,735**	**100.00**

Approximately 95% of reportedly bundled and consolidated FY2010 DoN contracts, or approximately $794.3 million, was reported as potentially eligible for commercial item procedures. Altogether, contracts reported in FPDS (2011) as non-applicable for commercial item procedures and contracts with requirements descriptions likely unsuitable for commercial item procedures amount to just under 19%, or almost $158 million, of the total value for such bundled and consolidated FY2010 Navy Department contracts. Thus, data shows that over 81% of bundled and consolidated contract dollars, or over $674 million, was most likely eligible for awards using commercial item procedures. A stunning $636 million of these commercial item procedure-eligible contracts was not awarded using commercial item procedures. This represents approximately 76.51 % of total value of bundled and consolidated contracts, or 94% of total value of bundled and consolidated contracts eligible for commercial item procedures. Table 9 illustrates the use and non-use of commercial item procedures in bundled and consolidated Navy Department contracts.

TABLE 9
Summary Use of Commercial Item Procedures in Reportedly Bundled and Consolidated Contracts

Contract Type	Amount ($)	Share (%)
Non-Commercial Items (Actual or Likely)	157,779,573	18.97
Commercial Items (Actual or Likely)	674,169,162	81.03
-Commercial Items Likely – Procedures Not Used	636,493,854	76.51
-Commercial Items Actual – Procedures Used	37,675,308	4.53
Grand Total	**831,948,735**	**100.00**

Finding 5. Bundling and Consolidation Appears to Hinder the DoN's Attempts to Pay Its Contractors for Performance Through the Use of Performance-Based Services Acquisitions

Data suggests a stunningly negative detrimental impact of bundling and consolidation of service contracts on the use of Performance-Based Acquisitions (PBAs) per FAR Subpart 37.6

(2010). Approximately $431 million, or about 52% of the total FY2010 value of DoN bundled and consolidated contracts, was eligible for award using PBA terms. The remaining $400 million was either construction or manufacturing contracts and was not eligible for use of PBAs. Over $336 billion, or 78% of the value of bundled and consolidated contracts eligible for PBAs, was awarded without the use of PBA terms. Only 22%, or over $95 million, was awarded using PBA terms. In comparison, as of FY2008, OFPP established a goal for Performance-Based Acquisitions (PBAs) in 50% of eligible contracts (OFPP, 2007). This data suggests that as more service requirements were bundled and consolidated, DoN buyers likely had difficulties designing and setting performance objectives across the multiple lines of service requirements. Table 10 illustrates the use and non-use of Performance-Based Acquisitions in PBA-eligible bundled and consolidated contracts.

TABLE 10
Performance-based Acquisitions in Reportedly Bundled and Consolidated Contracts

PBA USE	Contracts Value ($)	PBA Share (%)
No – Contract Where PBA Is Not Used	336,011,94	77.89
Yes – Contracts Where PBA Is Used	95,374,628	22.11
Grand Total:	**431,386,575**	**100.00**

Finding 6. Private Sector Best Practices Apparently Have a Minor Impact on Bundling and Consolidation

Data suggests that the impact of private-sector, performance-based best practices described in the Moore et al. (2008) study on bundling and consolidation is very small. Requirements with descriptions suitable for such best practices (e.g., system-of-systems engineering, Total Lifecycle Costs, or Performance-Based Logistics) account for under 10% of volume of bundled and consolidated contracts. Thus, it appears that 90% of reported DoN bundled and consolidated contract dollars was awarded in this way for reasons other than performance. Table 11 illustrates reported bundling and consolidation of Navy Department contracts due to private sector best practices.

TABLE 11
Bundling/Consolidation due to Private Sector Best Practices: System-of-Systems, Total Lifecycle Cost, or Performance-Based Logistics Requirements

Requirements	Value ($)	Share (%)
Maintenance-Repair of Aircraft Components	6,770,916	0.81
Miscellaneous Aircraft Accessories and Components	15,538,154	1.87
Guided Missile Launchers	16,120,500	1.94
Logistics Support Services	7,652,611	0.92
Program Management/Support Services	32,111,172	3.86
Total:	**78,193,353**	**9.40**

Finding 7. Consolidation and Bundling Appears to Hurt the U.S. Defense Industrial Base, With Regulatory Barriers Favoring Large Foreign Firms

Data shows that bundling and consolidation appeared to have hurt not only U.S. small businesses but the U.S. defense industrial base as a whole. The negative impact on U.S. firms of all sizes appears to be significant. Foreign-based businesses have received almost $282 million, or over 33% of the total value of FY2010 bundled and consolidated contracts (although some of that money went to foreign subsidiaries of U.S. firms). Of that $282 million, $24 million, or 2.8% of the total value of bundled and consolidated contracts, was designated as foreign funded (non-Foreign Military Sales). Those foreign-funded contracts included $15 million to an Italian firm under NAICS code for Industrial Building Construction work in Italy (at about 1.8% of the total value), as well as $9 million to a Spanish firm for Commercial & Institutional Building Construction in Spain (at about 1% of the total value). However, descriptions and similar contracts awarded to the same recipients provide reasons for questioning the foreign funding designation. Other internationally sourced bundled and consolidated contracts include the following

NAICS categories: Facilities Support Services at about $181.8 million, or 21.85% of the total value of contracts, Industrial Building Construction at $21 million, or 2.52% of the total value of contracts; Commercial and Institutional Building Construction at $60 million, or 7.21%; Port and Harbor Operations at approximately $7.7 million, or 0.92%; and Passenger Car Leasing at over $5.6 million, or 0.68%. As shown previously, in all of these NAICS categories, the average bundled and consolidated DoN contracts are within the capability of U.S. small firms to perform.

Thus, the explanation for these awards to foreign firms must be found in barriers to entry other than lack of performance capability in the U.S. small business sector. Such barriers may be simple lack of geographic presence, local licensing requirements imposed by foreign countries on U.S. firms, or, ironically, even U.S. regulations benefitting foreign firms. For instance, Italian business sector received 24.27 percent of all reportedly bundled or consolidated contracts, most of it for Facilities Support Services. U.S. small firms faced particularly high regulatory barriers to obtain this work. For example, U.S. offerors on U.S. projects in Italy were "required to submit a *Societa Organismi D'Attestazione* (SOA), a certification evidencing compliance with Italian law regarding the qualifications of companies competing for public works contracts. . . . An SOA certifies a company to be qualified in particular categories and classifications of work. . . . Submission of an SOA in the name of another contractor is permissible in certain circumstances under a system called *avvalimento*, authorized by Italian law" (GAO, 2010). Further, the SBA's own size regulations may encourage combining requirements under the Facilities Support Services NAICS code by providing that this code is to be used with "the performance of three or more separate activities in the areas of services or specialty trade contractors industries. If services are performed, these service activities must each be in a separate NAICS industry." (SBA Regulations, 2009). In procurements under such NAICS code, general contractor foreign firms would, therefore, have a regulatory advantage over American small or specialty contractors. Table 12 illustrates international sourcing of bundled and consolidated Navy Department contracts.

TABLE 12
International Sourcing of Bundled and Consolidated Contracts

	Contracts Value ($)	Share (%)
Foreign Contracts:	**281,973,556**	**33.89**
Bahrain: Contractor Home	**5,638,320**	**0.68**
-Place of Performance: Bahrain	**5,638,320**	**0.68**
-NAICS: Passenger Car Leasing	5,638,320	0.68
Italy: Contractor Home	**202,777,036**	**24.37**
-Place of Performance: Italy	**202,777,036**	**24.37**
-NAICS: Facilities Support Services	181,777,036	21.85
-NAICS: Industrial Building Construction	21,000,000	2.52
Malta: Contractor Home	**7,652,611**	**0.92**
-Place of Performance: Missing	**7,652,611**	**0.92**
-NAICS: Port and Harbor Operations	7,652,611	0.92
Spain: Contractor Home	**60,000,000**	**7.21**
-Place of Performance: Spain	**60,000,000**	**7.21**
-NAICS: Commercial and Institutional Building Construction	60,000,000	7.21
United Arab Emirates: Contractor Home	**5,905,588**	**0.71**
- Place of Performance: Kenya	**5,905,588**	**0.71**
-NAICS: Commercial and Institutional Building Construction	5,905,588	0.71
United States Contracts:	**549,975,179**	**66.11**
Grand Total	**831,948,735**	**100.00**

Finding 8. The Navy Department Likely Did Not Receive Expected Monetary Benefits from Reported Bundling and Consolidation

As stated previously, Congress required federal agencies to obtain a 5% to 10% premium in “measurably substantial benefits” from contract bundling pursuant to Title 15, Section 632, or to prove “substantially exceeding” benefits from consolidation pursuant to Title 10, Section 2382. (U.S. Code 2010). Further, as stated above, it is DoD policy to “strongly encourage” its buyers “to quantify the benefits” regardless of whether a contract is bundled or consolidated

(DoD OSBP, 2007). Thus, on over $831 million in bundled and consolidated contracts, the dollarized expected benefits should have been valued at over $77.7 million. The projected value of expected monetary benefits to the taxpayers from bundling and consolidation is illustrated in Table 13. FPDS records contained no information concerning benefit, and no check of agency files was performed to examine whether these benefits have been documented. However, over 71% of the value of these benefits would have been expected from contracts that individual small firms could perform, and another over 12% of the value of these benefits would have been expected from contracts that teams of up to three small firms could perform. Without reviewing contract files, it is hard to assume that large firms provided the kind of quantified benefits on over 83% of the value of bundled and consolidated contracts that small firms could not have also provided. A contrary outcome is much more plausible.

Although the 2013 GAO study did not contain generalizable findings, its data showed that no dollarized benefits were found in 45 percent of DoN consolidated contracts within the study sample. Thus, missing dollarized benefits appear to be a continuing problem.

TABLE 13
Projected Value of Expected Dollarized Benefits from Bundling and Consolidation

Small Business Performance Capability	Contracts Value ($)	Contracts Share (%)	Expected Dollarized Benefits
Contracts Capable of Small Business Performance	591,018,050	71.04	55,217,923
Contracts - Easy Small Business Teaming Capability	00,259,081	12.05	9,367,054
Contracts - Difficult Small Business Teaming Capability	40,671,605	16.91	13,142,735
Total	**31,948,735**	**100.00**	**77,727,713**

DISCUSSION: OBSERVATIONS AND RECOMMENDATIONS

The above analysis of FY2010 DoN bundled and consolidated contracts casts serious doubts on whether the three key propositions advanced in recent studies of bundling and consolidations in the DoD by Moore et al. (2008), Nerenz (2007), and GAO (2004) are valid. As to the proposition that consolidation is not a major obstacle for small firms seeking defense contracts, data shows that commands that were reportedly responsible for two thirds of consolidation and bundling were weighing down the DoN's overall small business goaling performance. Data also shows that the bundling impact assessment methodology developed by the SBA Advocacy (2002, 2000) and later adopted by the OFPP (2002) appeared to vastly understate the exclusionary impact of bundling and consolidation on small businesses. Thus, the first research question (whether bundling presents a serious obstacle to small business participation) is answered affirmatively. As to the proposition that small firms are legitimately excluded from consolidated contracts because they lack the capability to perform the military's needs, data shows that small firms (as defined by reference to their respective industries) were capable of performing the vast majority of such contract spending awarded by the DoN. Data also shows that only a small portion of consolidated requirements likely involved so-called private sector best practices. Thus, the second research question (whether exclusion of small firms from bundled and consolidated contracts was justifiable primarily due to lack of performance capacity) is answered in the negative. As to the proposition that consolidation and bundling benefit the defense acquisition system, reported data shows that bundling and consolidation appear to undermine fundamental systemic principles such as paying for performance, competition, preference for use of commercial terms and suppliers, and support for the U.S. defense industrial base. With regard to impact on the U.S. defense industrial base, contract consolidation may have been driven by artificial barriers to entry created by foreign governments hosting DoN bases or ships, or even by SBA's own regulations. Finally, because small firms were found capable of performing most bundled or consolidated contracts, the expected dollarized value of benefits to the DoN from consolidation is questionable. Of course, further research would be necessary to determine how these data trends hold across time. Thus, the third research question (overall benefit of bundling and consolidation to the defense acquisition system) is answered definitively or likely in the negative depending on the specific defense acquisition at issue. As a result, the study largely proved the hypothesis concerning the validity of SBA Advocacy's (2000, 2002) assessments of the impact of bundling.

These findings suggest an alternative way of achieving reductions in bundling and consolidation: focus on improving the pertinent good-government aspects of such contracts. First, DoN commands with below-average small business small business performance should be subject to additional oversight and restrictions on combining requirements regardless of whether statutory bundling or consolidation definitions are met. Second, to enable easier finding of capable small firms, teams, or mentor-protégé arrangements, a simplified size standards-to-contracts reference value conversion chart should be created where all size standards expressed in dollars. Third, the Navy-Marine Corps Acquisition Regulation Supplement (NMCARS) should be amended to ensure review by the Navy Competition Advocate General of all or most contracts that are both: (1) not competed and (2) are bundled or consolidated. Currently, only consolidated or bundled contracts at or above $50 million get the Competition Advocate General review. (NMCARS, 2010). Fourth, NMCARS should be amended to require that contract requirements for services could not be combined without the use of PBA terms and procedures. Fifth, NMCARS should be amended to require justifications for decisions not to use commercial item terms and procedures on eligible bundled or consolidated contracts. Sixth, DoD and DoN should review, revise, and enforce the reciprocal defense procurement agreements and status of forces agreements in order to reduce trade barriers and help U.S. firms get work on the United States' own bases overseas. For example, the current U.S.-Italian and the U.S.-Spanish memoranda of understanding (MOUs) concerning reciprocal defense procurement include obligations to remove or reduce barriers to procurement of services provided by U.S. firms, but construction projects are excluded from the MOUs' coverage. (DPAP, 2013). Foreign countries should be required to justify extending their national procurement systems' qualification requirements to U.S. firms working on U.S. defense contracts with only the most compelling justifications. Seventh, consistent with recommendations in the 2013 GAO study, buying commands should be required to report the dollar value of benefits for bundled and consolidated contracts. These strategies will not only result in greater small business participation but will also enable the DoN to achieve broad systemic improvements in defense acquisitions.

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