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Army Contracting Command Workforce Model Analysis

9 February 2012

by

Dr. Timothy Reed, Visiting Professor
Graduate School of Business & Public Policy
Naval Postgraduate School

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Abstract

Competition for financial and human resources continues to pressure Department of Defense (DoD) contracting organizations to accomplish their mission as efficiently and effectively as possible. The contracting workforce shoulders the burden of balancing the goals of maximizing taxpayers' value for money and reducing operating cost to the lowest reasonable level. Ensuring the right mix of acquisition professionals with the right competencies for each mission is essential to meet this challenge. This report is follow-on research to previous workforce model research (Reed, 2010), upon which this report relies substantially. Reed (2010) provided a survey of existing DoD contracting workforce models. This research seeks to identify best-in-class variables from the previous research as well as any opportunities for improvement identified during analysis of the models.

Keywords: Contracting, workforce, model, human capital, Army, performance, measurement, acquisition, workload

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Tim Reed—Dr. Reed is a principal researcher for the Naval Postgraduate School Acquisition Research Program and an adjunct professor of Entrepreneurship and Strategic Purchasing at the Air Force Institute of Technology (AFIT). At AFIT, he created the Strategic Purchasing Graduate Degree Program. He has taught at the University of Dayton, American University (Washington, DC), and the University of Maryland (University College). He has also conducted visiting seminars at American University in Cairo and Instituto de Empresas in Madrid. His Air Force contracting experience includes F-22 Fighter, C-17 Cargo Transport, and a contingency deployment as director of Joint Contracting Command-North, Kirkuk, Iraq. While serving at the Pentagon, Dr. Reed was responsible for implementing strategic sourcing and commodity councils for the DoD and the Air Force. He earned a PhD in Strategic Management and Entrepreneurship from the University of Colorado and is a certified purchasing manager (C.P.M.) with the Institute of Supply Management.

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Statement of Research Issue/Results

Identify best-in-class model variables from 2010 research on DoD contracting workforce models and identify the degree to which the variables account for required contracting workforce personnel. Identify predictive variables that will allow for development of a predictive workforce requirements model.

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I. Introduction

This study, consistent with the previous work that it extends (Reed, 2010), focuses on identifying methods used to assess the workload of government contracting personnel. Organizational success depends on ensuring that the correct number of human resources with the correct competencies is available to accomplish the mission. The increasing pace of change in the federal acquisition environment and intense pressure to cut operating budgets has increased the interest in the models available for use by contracting organizations. Organizations are seeking models to measure their workloads and assign adequate resources to effectively manage the workloads with acceptable levels of risk.

Traditionally, contracting leaders manage the size of their workforce by simply filling vacancies that exist in their assigned manning documents or organization charts. The reality of today's acquisition workforce environment is that it is increasingly difficult to fill organization vacancies with quality staff, let alone conduct rigorous analysis of workload and staffing requirements. However, the applicability of manning documents designed 10 or more years ago to the type and quantity of work being performed today is highly questionable. When government officials conduct workload assessments today, they most often use measures such as dollars awarded or actions completed. The failure to include measures of organization size or the type or quality of the work performed results in little valuable insight into the actual work performed. The current acquisition landscape provides ample motivation for contracting leaders to ask the following: "What size should our contracting organization be?"

I acknowledge at the outset that the answer to this quantitative question is not in itself sufficient for organizational success. It is not simply the number of workers but also the competencies of those workers that is essential in meeting mission requirements. While many other workforce initiatives and studies are investigating the competencies of contracting professionals, this report focuses on methods to

assess workload and relative performance in contracting organizations as well as options for using that information to staff organizations accordingly.

II. An Ebb Tide

Conventional wisdom holds that an increase of about 20,000 workers in the U.S. Department of Defense (DoD) acquisition workforce is a necessity (Acquisition Advisory Panel, 2007; Gansler, 2007; DoD, 2010). Despite evidence supporting the case for increasing the contracting workforce, the constrained budget environment may cause contracting leaders to abandon their hopes to grow their workforce and instead increase the urgency with which they evaluate where they place their existing human capital. With proposed policies that pivot away from workforce growth and toward replacing vacancies at a 1 fill per 2 vacancy rate, the importance of matching staff to mission requirements is increasing exponentially.

The lack of an analytical foundation for many current staffing plans begs the following questions:

- How do we know which service or buying office to assign limited accessions?
- Which offices are currently adequately staffed, and which offices are critically understaffed?
- What will be the most effective method to allocate any new accessions or positions to the offices with the greatest need?

The desire for increased rigor in workforce models has become evident in recent years in the federal government. In 2009, the Office of Federal Procurement Policy addressed the need for workload models and called for a process to facilitate workforce model development and assessment (OFPP, 2009). The Federal Acquisition Institute (FAI) has since established an online community that shares workload projection tools. In keeping with the Office of Federal Procurement Policy's assessment that the most appropriate model may vary by agency, OFPP has made seven different model types available. The models available include the following:

- Project-based,

- Program-based,
- Multidimensional,
- Regression,
- Volume-based,
- Transaction, and
- Conceptual-combination models.

All federal civilian agencies have a contracting representative member of the FAI modeling working group that can provide access to the various models. So far, the DoD does not have a similar working group to facilitate the sharing of model information.

Despite the challenges identified in workload assessment and staffing, contracting leaders do have options available to measure their organization workload and relative performance. I provide a brief summary of several ratios and models and then provide an assessment of the strengths and weaknesses of each.

III. Option 1—Use a Ratio

Over the past 30 years, many ratio-based measures of workload and performance have been developed (for summaries, see Reed, 2010, 2011). These ratios provide an opportunity to use established measures to analyze organization work and then compare the results to an existing set of baseline results. Three such ratios are discussed in the following sections.

A. Purchasing and Procurement Workload Ratios and Measures

The Center for Advanced Purchasing Studies (CAPS) works with industry supply management executives and academics to develop and share knowledge and best practices. These ratio baselines allow commercial purchasing organizations to compare themselves with other organizations (Wade, 2010).

Among the 20 industry variables related to procurement that the CAPS track, there are three ratios that apply to both the public and private sectors, and which could easily be implemented to measure contracting organization work.

The first ratio is the total dollars spent by a procurement organization as a percentage of the total firm/agency/DoD department budget (the proportion of an organization's needs that are acquired via contract and thus contracting's relative impact/importance to the total organization). This allows leaders to convey contracting's contribution to the overall organization/agency mission.

The second ratio is the supply management operating expense as a percentage of total spend (how much does it cost to spend each dollar of supplies or services that the organization procures?). *Cost-per-dollar-obligated* (CPDO) ratios (also known as *cost-to-spend* ratios) allow a comparison to other organizations on the efficiency of the unit and for trend analysis of the organization's performance from year to year.

The government sector has found the CPDO benchmark to be particularly useful. It is based on available information and is easy to understand. Further, dollar-based calculations are less likely to cause government auditors to mistake increased efficiency (fewer orders) as a rationale for staff reductions (McCampell and Slaich, 1995).

Of course, CPDO ratios should be measured in a competitive environment (to ensure award prices are not kept high to improve the metric) and in an aggregated fashion, rather than applying the measure to individual buyers (aggregation should ensure there is no skewing by individuals attempting to pursue *bad buying* practices; Reed, 2010, 2011). A study of federal contracting organizations found that the average CPDO ratio was $0.0104, which is in the range found in the CAPS benchmarks ($0.002 to $0.05; Reed, 2010, 2011).

Beyond baseline assessments, a CPDO ratio can serve as a useful outsourcing decision tool for your organization. For agencies that utilize fee-for-service contracting services for portions of their workload, comparing the organization's cost-per-dollar obligated to the fees charged by external groups (which may range from 0.75% to 8%) often provides a strong argument for enhancing internal capability rather than paying higher fees elsewhere.

The third ratio is the total spend per supply management employee (contract dollars awarded by the average procurement specialist), which identifies the size of the portfolio that the average buyer can execute (ISM, 2010). Average price levels of contract actions vary at different organizations and by the class of product or service purchased. This variability requires that comparisons using this measure be used only within similar groups or when controlling for the differences in price.

An analysis of existing research (Reed, 2010) found the contract-dollars-awarded-per-buyer measure to be superior to using either orders or actions-per-buyer measures for several reasons. Organizations often differ on the definition of what an *order* or *action* is. In addition, the orders/actions-per-buyer measure could

be manipulated by pursuing inefficient methods (issuing multiple orders rather than pursuing a more efficient consolidated order process). Conversely, auditors may conclude that a reduction in orders may provide a logical basis for staff reductions (McCampell and Slaich, 1995).

A study of state contracting organizations found that the average dollar volume obligated annually per buyer was $10.7 million, which is in the range found in the CAPS benchmarks ($3.4 million in aerospace to $47.9 million for food service; McCampell and Slaich, 1995). The wide ranges in benchmarks illustrate the importance of caution when considering comparisons to other organizations.

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IV. Measuring the Value of Organization Output

Prior to discussing workload models, it is appropriate to observe that both ratios and models can provide information regarding how much work an organization accomplishes, but they rarely address how good the work is. Whichever ratio or workload model is selected, it is important to recognize that the factor that often goes unmeasured is the quality of the contracting product. For example, an organization may produce a large volume of actions, or a large dollar total of contracts at a low operational cost, but these quantity measures do not capture the quality or value of the output.

To address this shortcoming, researchers in the past have recommended measuring contracting organization outputs with *performance unit costing* (PUC; Sorber and Straight, 1989, 1991, 1995; Straight, 1999). This method considers the cost of operations relative to performance units. *Performance units* are completed actions adjusted for the level of the quality of the output. Examples of quality factors include the following:

- Timely award,
- Timely delivery,
- Fair and reasonable prices,
- Customer satisfaction, and
- Compliance with laws and regulations.

(Sorber and Straight, 1995)

PUC is calculated by multiplying the number of *output units* (e.g., contract actions) by an achieved quality index (from 0.00 to 1) that is composed of some of the preceding quality factors. The result is the quantity of performance units. The number of performance units is then divided into the operating cost of the

procurement organization to determine the cost per performance unit (Sorber and Straight, 1989, 1991, 1995; Straight, 1999). For example, 900 units of output at an achieved quality index of 0.65 yields 585 performance units. If the procurement organization costs incurred were 10,000, then the cost per performance unit would be $17.09. Obtaining higher output levels while maintaining quality and cost would decrease the performance unit cost. Higher quality achieved at the same cost and output would also decrease PUC. The PUC methodology combines the resource perspective of the cost to run the organization with the quantity and quality of the work performed (Sorber and Straight, 1989, 1991, 1995; Straight, 1999).

The important thing to remember is that the models and ratios discussed in this report may be able to indicate that an organization does a lot of work efficiently, but only through the incorporation of PUC or some other quality output measure can the organization also ensure that the outputs are valuable.

V. Option 2—Build a Process–Action Contracting Workload Model

The use of ratios is attractive based on the relatively low effort required to compute them and ready availability of baseline comparisons. A second, more complex option for assessing contracting organization workload and performance is to utilize an existing workload model or develop a new model specific to the organization. While such models do require more work to develop and implement, they can be constructed to identify strategic priorities of the organization and to ensure that nuances of the work conducted are addressed in the models. Examples of DoD models currently in use will be discussed later in this report.

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VI. Analysis and Critique of DoD Workload Models

Previous research (Reed, 2010, 2011) indicates that there are at least six evaluation criteria by which workload models might be evaluated.

- Does the model reflect the strategic goals of the organization?
- Does the model recognize the varying complexity of work in the organization?
- Does the model include measures of value or quality of organization outputs?
- Does the model provide actionable information?
- Does the model provide functional ease of use?
- Does the model allow for the projection of future workload based on leading indicators?

In the following section, model examples from the three DoD services are presented, along with an assessment of the models on each of the criteria above.

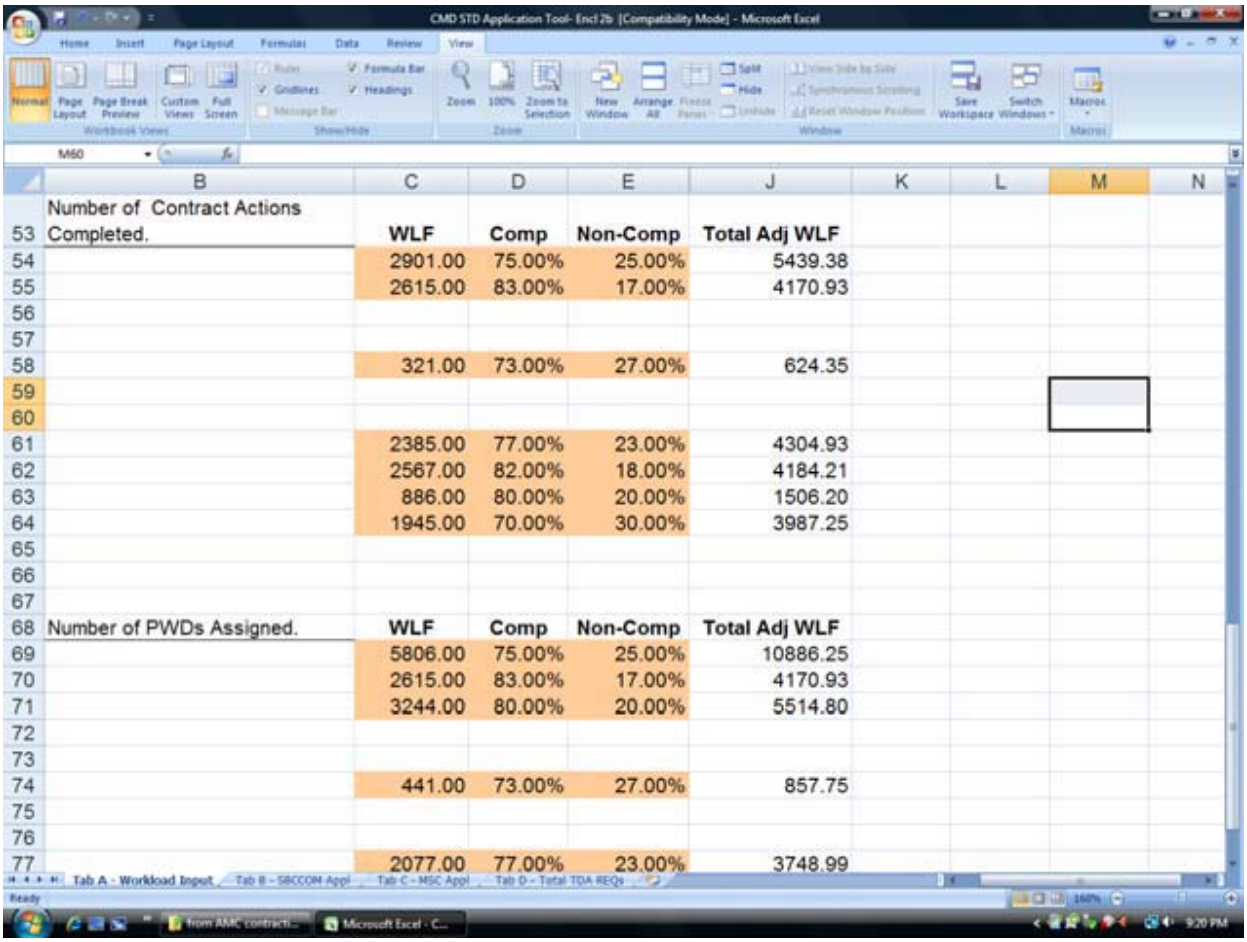
A. U.S. Army Workload Models

The Army has primarily relied on a decentralized workload assessment process. This process allows the various commands to develop workload models for application within their organizations.

An example of a model used by U.S. Army contracting organizations was developed by the U.S. Army Materiel Systems Analysis Activity (AMSAA).

The AMSAA has been tasked with preparing manpower models for Army acquisition organizations since 1987. In 1999, the Army Materiel Command directed the AMSAA to baseline all functional areas in the acquisition process, including program management, staff/policy support, and contract administration. The model that was developed as a result of this baseline was finalized in 2002.

Two clusters emerged based on the types of work accomplished: weapon system acquisition and installation/camp support. Different process action times (PATs) or task completion times were used in each of the two sectors (Reed, 2010). An example of the AMSAA model is depicted in Figure 1.



	B	C	D	E	J
53	Number of Contract Actions Completed.	WLF	Comp	Non-Comp	Total Adj WLF
54		2901.00	75.00%	25.00%	5439.38
55		2615.00	83.00%	17.00%	4170.93
56					
57					
58		321.00	73.00%	27.00%	624.35
59					
60					
61		2385.00	77.00%	23.00%	4304.93
62		2567.00	82.00%	18.00%	4184.21
63		886.00	80.00%	20.00%	1506.20
64		1945.00	70.00%	30.00%	3987.25
65					
66					
67					
68	Number of PWDs Assigned.	WLF	Comp	Non-Comp	Total Adj WLF
69		5806.00	75.00%	25.00%	10886.25
70		2615.00	83.00%	17.00%	4170.93
71		3244.00	80.00%	20.00%	5514.80
72					
73					
74		441.00	73.00%	27.00%	857.75
75					
76					
77		2077.00	77.00%	23.00%	3748.99

Figure 1. Example of the AMSAA Model

The primary workload factors used in the AMSAA model are (1) contract actions, (2) solicitations, (3) the ratio of competitive to non-competitive actions, and (4) the number of acquisition systems managed. Distinct process action times or task completion times were used to calculate process times for weapon system acquisition and installation/camp support.

An interesting aspect of this model is the weighting applied to completive actions. Based on a regression analysis of actions processed, the AMSAA has assigned a 4.5 multiplier to noncompetitive (e.g., sole source) contract actions. In other words, a noncompetitive action is credited for 4.5 times the process action time allowed for completion when compared with a competitive action. Despite its statistical foundation, observers have questioned the 4.5 multiplier factor, specifically whether the factor provides an accurate assessment of work complexity in the sole source environment. The last complete model run was in 2006; however, Army Contracting Command has recently expressed a desire for updated high-level assessments (Reed, 2010, 2011).

1. Assessment of Army Model

- Does the Army model reflect the strategic goals of the organization?
  - It is difficult to determine, but apparently there is little or no direct tie to ACC or other Army contracting strategic goals.
- Does the model recognize the varying complexity of work in the organization?
  - Yes, by capturing different types of actions. However, the methodology and factors utilized for competitive and non-competitive actions warrant further investigation. Further, because the process action times are now over a decade old, a revalidation of the model would be appropriate at this time.
- Does the model include measures of value or quality of organization outputs?
  - Not at this time.
- Does the model provide actionable information?
  - Yes, total earned process time hours and FTEs can be calculated with this model.
- Does the model provide functional ease of use?
  - Yes, inputs are from archive data.

- Does the model allow for the projection of future workload based on leading indicators?
    - Not at this time. Such a projection would require a move to future years defense program (FYDP) inputs or budget request information, rather than relying on solicitation and other contract action data.

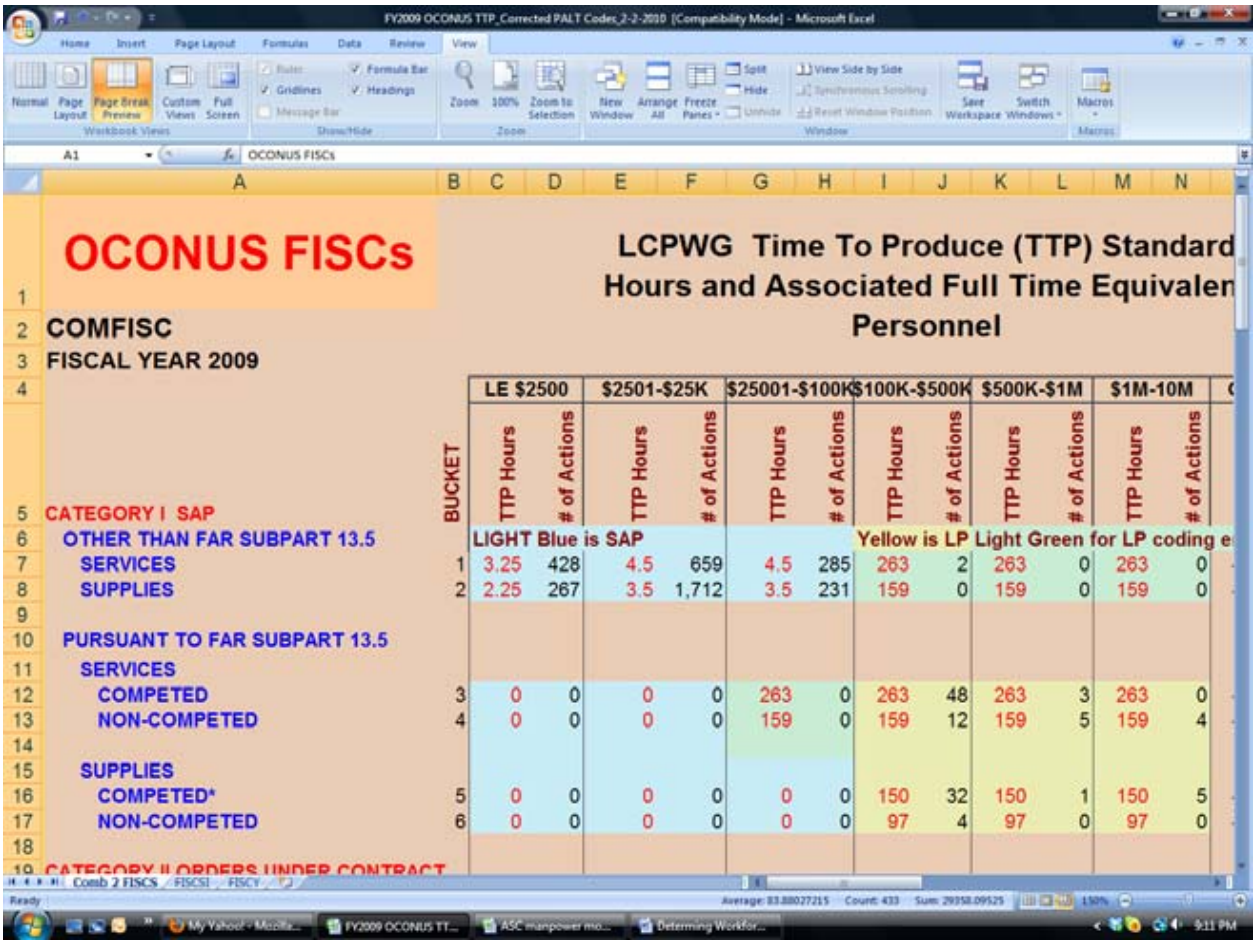
B. U.S. Navy Workload Models

Naval Supply Systems Command uses the *time to produce* workload model to measure work accomplished. The model uses process action times developed by two subject matter expert groups: simplified acquisitions and large acquisitions. The time to produce model relies on data collected each month on completed actions. The data set includes product and service definitions of each contracting action. The data are placed into simplified acquisition or large acquisition buckets.

A separate productivity model measures the actual productivity of the contracting specialists via a tally of completed simplified and large-contract actions. Complexity is accounted for in this model by placing more complex actions in the large acquisition bucket, irrespective of the dollar level.

Both the TTP model and the productivity model can be used to assess activity at the FISC-wide level, at the aggregate FISC level, or at the individual operating location (Reed, 2010). However, due to the wide variability in average productivity per year and the wide variability in the nature of work performed, the models are used to compare year-over-year performance trends at individual locations rather than to assess each location's capability relative to other locations (Reed, 2010, 2011).

An example of the TTP model is depicted in Figure 2.



OCONUS FISCs

LCPWG Time To Produce (TTP) Standard Hours and Associated Full Time Equivalen Personnel

COMFISC

FISCAL YEAR 2009

	BUCKET	LE $2500		$2501-$25K		$25001-$100K		$100K-$500K		$500K-$1M		$1M-10M	
		TTP Hours	# of Actions	TTP Hours	# of Actions	TTP Hours	# of Actions	TTP Hours	# of Actions	TTP Hours	# of Actions	TTP Hours	# of Actions
CATEGORY I SAP		LIGHT Blue is SAP						Yellow is LP Light Green for LP coding e					
OTHER THAN FAR SUBPART 13.5													
SERVICES	1	3.25	428	4.5	659	4.5	285	263	2	263	0	263	0
SUPPLIES	2	2.25	267	3.5	1,712	3.5	231	159	0	159	0	159	0
PURSUANT TO FAR SUBPART 13.5													
SERVICES													
COMPETED	3	0	0	0	0	263	0	263	48	263	3	263	0
NON-COMPETED	4	0	0	0	0	159	0	159	12	159	5	159	4
SUPPLIES													
COMPETED*	5	0	0	0	0	0	0	150	32	150	1	150	5
NON-COMPETED	6	0	0	0	0	0	0	97	4	97	0	97	0
CATEGORY II ORDERS UNDER CONTRACT													

Figure 2. Example of the TTP Model

1. Assessment of Navy Models

- Do the Navy models reflect the strategic goals of the organization?
  - o It is difficult to determine, but apparently there is little or no direct tie to Navy contracting strategic goals.
- Do the models recognize the varying complexity of work in the organization?
  - o Yes. The models use different buckets of complexity, as well as levels of competition. More complex actions are placed in the large (complex) acquisition action bucket.
- Do the models include measures of value or quality of organization outputs?

- Not at this time.

- Do the models provide actionable information?
  - Yes, total earned process time hours and FTEs can be calculated with this model. However, the Navy is reluctant to utilize the output information on an enterprise level. Use of the data is currently restricted to identifying trend comparisons for individual operating location organizations over time.

- Do the models provide functional ease of use?
  - Yes, inputs are from archive data and other existing monthly data.

- Do the models allow for the projection of future workload based on leading indicators?
  - Not at this time. Such a projection would require a move to FYDP or budget request information, rather than relying on other contract action data.

C. U.S. Air Force Workload Models

In 2001, the U.S. Air Force published a manpower standard for operational (base-level) contracting (AFMIA, 2001) that recognizes key workload indicators such as dollars obligated and total actions completed. It also recognizes that large dollar actions are more complex than small dollar actions and, as such, rewards more process time credit for actions above $100,000 than for those below $100,000. The model also recognizes the burden of military deployment responsibilities and the importance of the support roles of the contracting organization, and it awards manpower for government purchase card oversight, small business program administration, commander's support staff, and IT support.

Air Force manpower experts developed the process time standards by recognizing over 150 individual types of activity in the procurement process and at least 50 types of activity in the contingency contracting environment (AFMIA, 2001).

The manpower standard workload formulas can be inserted into standard spreadsheet software applications for ease of computation. However, the parsing of data required to translate existing data into a useable format (e.g., the elimination of non-qualifying contract activity) can be burdensome.

Because the Air Force model is more robust in many ways when compared to other agency models, it has been favored as the model of choice by many in non–Air Force DoD agencies and has become the default model used in joint basing workload transfer negotiations. Despite the praise this model has received from many users, criticism for the standard has grown in recent years. Of particular note is that the manpower formula is outdated because it is based on the mean (or average) time for executing activities in 1998. Critics of this model identify characteristics of the changing contracting landscape as concerns (e.g., management and oversight of the acquisition of services process, performance-based service contracts, the standard procurement system, competitive sourcing for multiple installation support, increased post-award contract administration, the burden of service contracts on installation contracting offices, strategic sourcing efforts that require much more pre-award activity in order to develop commodity strategies, and the increased contingency deployments; Reed, 2010).

In addition, the types of work that receive no credit in the Air Force model are a concern for many. For example, there is no credit given for dollars obligated or actions processed that are modifications to contracts, nor for processing orders off of centralized contracts, nor for awarding or processing utility contracts. The work associated with these efforts can be substantial, yet it is not credited in the Air Force model. The rationale for withholding credit is that post-award and order processing was built in to the original time standards. In other words, in the manpower standard, when an organization is given credit for awarding a contract, it also earn all the necessary manpower to administer the contract. The changes in complexity and number of these types of actions since 1998, and the tremendous growth in multi-year contracts (which were much more rare in 1998), call into

question whether the original built-in process times are still an accurate reflection of the actual time required to complete the activities today. A final critique of the Air Force model is that it is perceived to be similar to the time and motion studies conducted in the mid-twentieth century. Time and motion studies focus on increasing the efficiency in a process and measuring the time required to complete tasks. Although the models measure the time required to accomplish process tasks, they do not take into account the quality of the outputs that result from the process.

An example of the Air Force Operational Contracting Model is depicted in Figure 3.

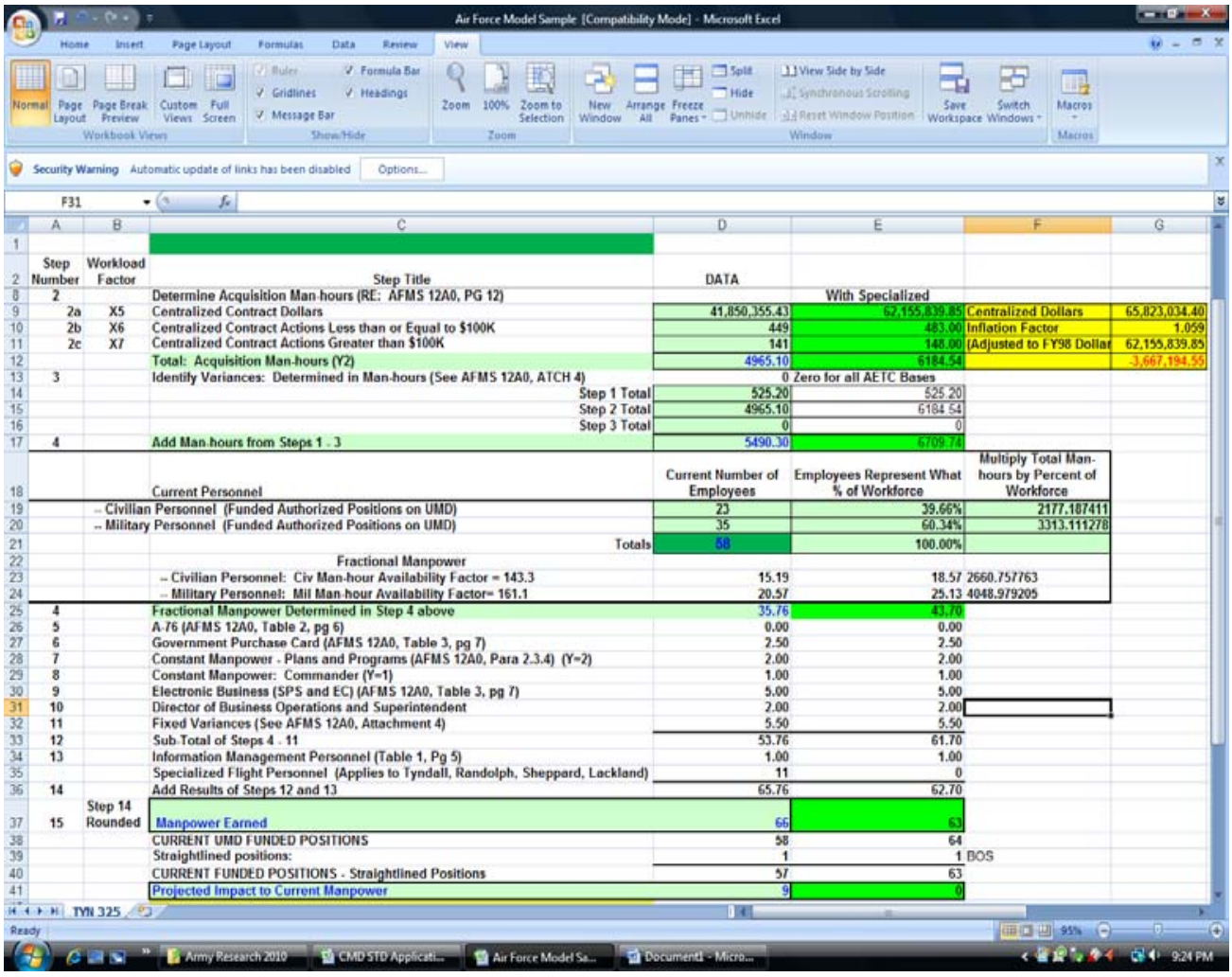


Figure 3. Example of the Air Force Operational Contracting Model

1. Assessment of Air Force Operational Model

- Does the Air Force operational model reflect the strategic goals of the organization?
    - It is difficult to determine, but apparently there is little or no direct tie to current Air Force contracting strategic goals.
- Does the model recognize the varying complexity of work in the organization?
    - Yes. The models use different buckets of complexity; however, the buckets may not reflect the current task environment and need further evaluation and revision.
- Does the model include measures of value or quality of organization outputs?
    - Not at this time.
- Does the model provide actionable information?
    - Yes, total earned FTEs can be calculated with this model.
- Does the model provide functional ease of use?
    - Somewhat. Inputs are from archive and monthly data. However, a great deal of manipulation and cleansing of data is required.
- Does the model allow for the projection of future workload based on leading indicators?
    - Not at this time. Such a projection would require a move to FYDP or budget request information, rather than relying on dollar obligations and other contract action data.

D. The Air Force Systems Contracting Model

Separate and distinct from the Air Force operational manpower standard is the Air Force *workload assessment model*(WAM) for weapon systems contracting developed by the Aeronautical System Center at Wright Patterson Air Force Base, Ohio. This model (see Figure 4) relies on stakeholder assessments of the number of hours required for tasks at differing dollar thresholds. For example, an organization

may earn 245 hours to complete a sole source contract from $1 million to $5 million but earn 575 hours to complete a contract from $25 million to $50 million. Similar threshold-based earned hours are awarded in service contract, competitive contract, and delivery order categories as well. There are 16 modification types (e.g., supplemental agreements, funding actions); 10 undefinitized contract types (e.g., letter contracts, terminations, option exercises); 15 definitization actions (e.g., task order, delivery order, undefinitized contract action); and eight miscellaneous actions (e.g., Freedom of Information Act requests, congressional inquiries). Stakeholder groups meet to assign process times for each of these types of work (Reed, 2010).

Workload is determined through an annual data call exercise in which each buyer on the installation completes a spreadsheet by simply identifying the contract or program he or she is working on and then identifying—via dropdown boxes—general information regarding the type and level of the work.

The assigned hours earned are not displayed to the buyers, and all workload assessment computations are calculated after submission. The data are aggregated through contracting offices and reviewed by contracting leaders so that they can concur with the input (Reed, 2010). The data are further refined by assigning earned credit based on where the action is within the acquisition cycle. In other words, buyers earn partial credit for completing any of the 12 different portions of larger tasks of work in progress (e.g., 25% of related task hours for reaching *RFP issued*, or 70% for *negotiations complete*).

Further refinements occur based on the complexity factor assigned to the program office. The contracting directorate conducts stakeholder discussions, and considers factors such as congressional visibility, program maturity, higher headquarters or Program Executive Office review thresholds, technical complexity, personnel mix and history, and so forth, to determine an indirect multiplier factor to add to the workload input in order to compensate for additional workload complexity in the program.

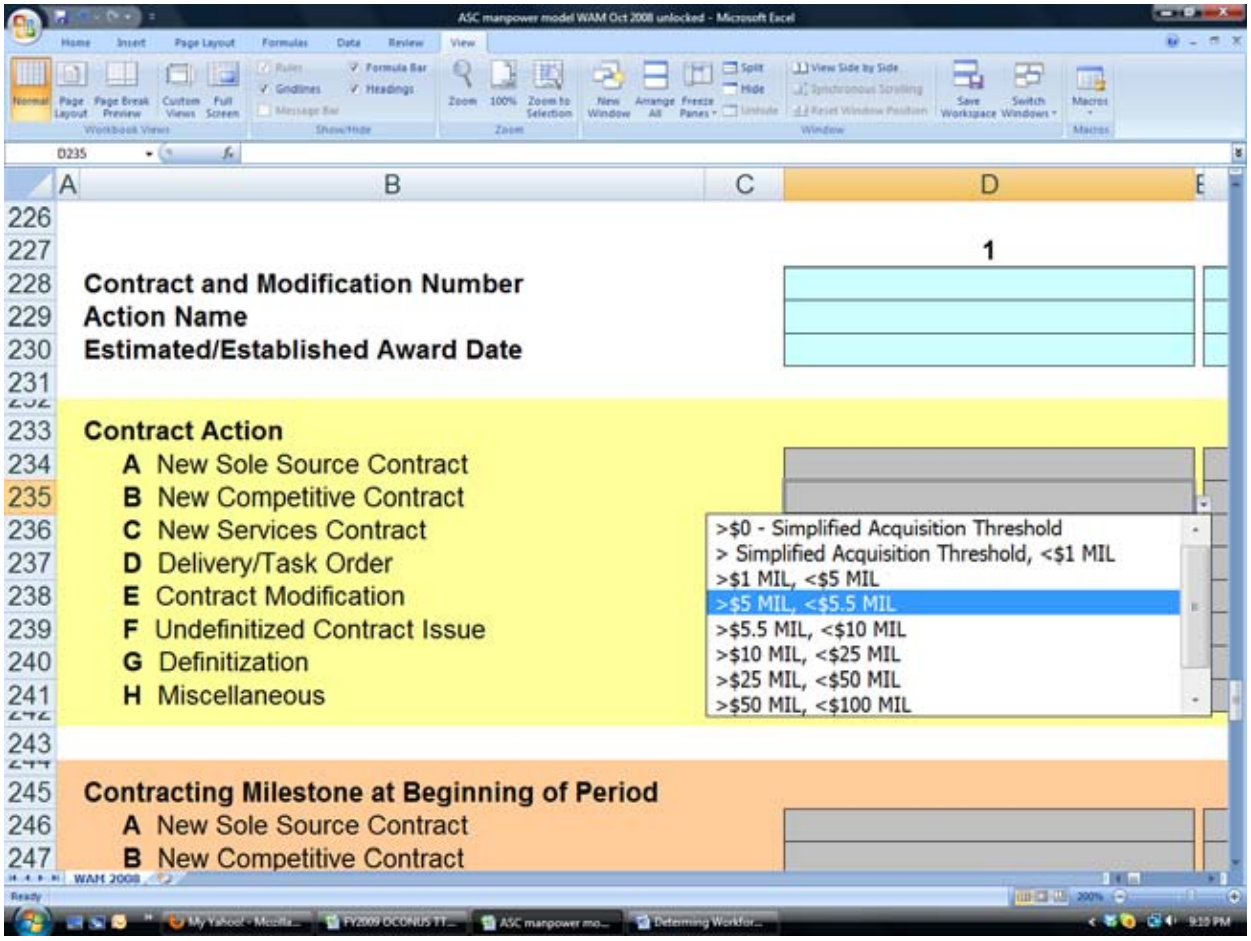


Figure 4. Air Force Workload Assessment Model

WAM relies on individual procurement specialists to accurately input their workload, determine the appropriate complexity level for the work, and determine the degree of completion of the total effort. In addition, it does not account for types or grades of workforce personnel. Forty hours earned through an action covers one FTE for a week, whether it is a GS-9 with two years of experience or a GS-13 with twenty years of experience. To account for variability in grade structure, in cases where a contracting office has a significant departure from the normal distribution of grade levels, the indirect complexity factor is designed to compensate for that shortfall.

1. Assessment of Air Force Systems Contracting Model

- Does the Air Force systems contracting model reflect the strategic goals of the organization?
    - It is difficult to determine, but apparently there is a link to Air Force Materiel Command priorities.
- Does the model recognize the varying complexity of work in the organization?
    - Yes. The model uses many different buckets of complexity and is developed with a great deal of granularity so that task types are captured by complexity and degree of completion.
- Does the model include measures of value or quality of organization outputs?
    - Not at this time.
- Does the model provide actionable information?
    - Yes, total earned FTEs can be calculated with this model, although variance in grade level and competency level require further refinement.
- Does the model provide functional ease of use?
    - Somewhat. Inputs are from an annual data call. While individual entry of data by all contracting personnel requires additional effort compared to use of archived data, it results in a real-time assessment of complexity and work completion.
- Does the model allow for the projection of future workload based on leading indicators?
    - To some degree. The model does not project future (not currently assigned) work. However, unlike other models, it does capture work in progress and the degree of completion of that work. Given the long total process times that are sometimes involved in weapon system contracting, such an assessment may equate to a de facto future work assessment for many in the systems contracting workforce. Further, as major weapon systems are generally much more clearly defined in out-year budget projections than operational support, these projections

may lend themselves well to improved future projections in the systems contracting environment.

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VII. Six Steps for Contracting Leaders

There is a wide variety of ratios, benchmarks, and models available to serve as the basis for government contracting workload assessment. However, most of the attention on contracting workload and performance to date has been on the number of actions or dollars awarded. These overly broad measures are incapable of answering the critical questions: How much work do we or will we need to do, and how well do we do it? Understanding the competencies and capabilities of an organization assists managers in developing a mixed human capital strategy; however, leaders cannot determine the mix of competencies required without also determining the number of workers needed. The two factors affect each other with such great significance that to consider one in the absence of the other is an endeavor destined for failure.

There are concrete actions that contracting leaders can take toward answering the questions above. The following six steps can be taken at the lowest implementation cost to provide leaders with immediate assessment of their workload and staffing:

1. Define your strategic intent and identify quality measures that reflect your intent (e.g., timely award, timely delivery, fair and reasonable prices, customer satisfaction, corrective actions).

2. Conduct a CPDO analysis for the previous fiscal year for your organization. If you do not have access to all operating expenses (and many leaders do not), use the salary cost of the workforce as your operating cost.

3. If you prefer the more tailored, precise (and more time-consuming) process action model alternative, develop or select a model to use, populate it, and run the model calculations.

4. Measure the quality of your outputs (consistent with your strategic intent) now and over time to determine trends and averages.

5. Compare your organization to industry benchmarks and to similar organizations in your service or department. Address the differences

between your CPDO and the benchmarks. What are the potential explanations for the differences? Involve stakeholders such as organization commanders and office directors to add contextual details to provide a more comprehensive understanding.

6. Identify an estimate of your future work. This remains one of the most difficult tasks. Budget proposals, future years defense programs, program objective memoranda, and appropriations legislation may provide information upon which to construct rough order estimates to predict future work. Predictions may either relate to the total amount of work expected or the departure trend from previous-year obligations that your organization may experience. Develop complexity and risk assessment weights based on the type of monetary obligations and product/service mix that your organization is projected to procure.

Workload models and ratios can provide useful information regarding the contracting organization. However, the results should never be used as the single factor to assess or compare an organization without also considering other contextual information regarding the differences that exist among groups. By taking the six steps mentioned previously, contracting leaders will begin to gain valuable insight into the amount and nature of the work their organization is to perform as well as information regarding the actual performance of the work. Further, taking these actions it will allow for the development of quality measures linked to leaders' strategic intent and for the establishment of quality performance goals for the organization, rather than the volume performance measures currently in use.

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