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# Price Analysis on Commercial Item Purchases Within the Department of Defense

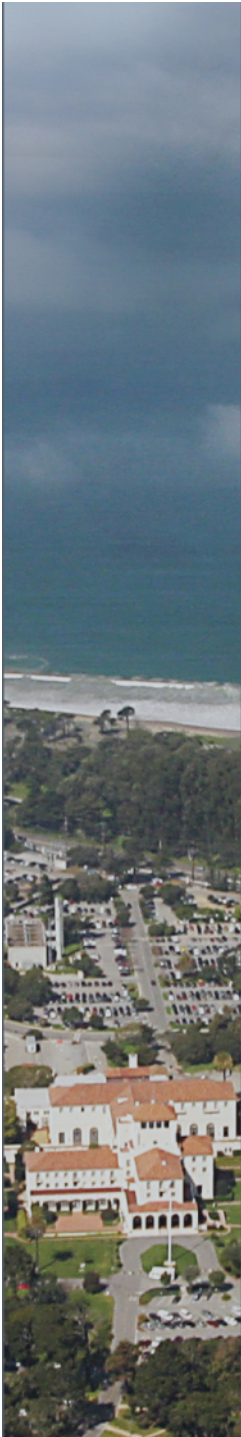
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And

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In collaboration with our thesis students  
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- Problem statement
- Data overview
  - Contracting file checklist and
  - Contracting personnel survey
- The findings and analysis:
  - Discussion of findings and analysis
  - Discussion of recommendations
- Future Research



# Take away from current talk

- We did not find a magic pill to help Contracting personnel to pay cheaper prices and to document “Price Analysis” appropriately in contract files
  - In conclusion to our research we have proposed recommendations that could help secure better prices and improve pricing documentation
- FYI, DoD is currently drafting a proposed DFARS rule that implements a requirements of the FY2013 titled “Evaluating Price Reasonableness for Commercial Items.”
  - Congress appreciates the pricing problems and is asking for change
  - The time to make these changes is *now!*



# Problem Statement for the Research

- Before the procurement reforms in the late 1990s, most contract pricing of acquisitions was conducted using “cost analysis” by Contract Specialists
- Then came FAR Part 12 and identifying items as “commercial” (FAR 2.101)
- As a result, the federal acquisition workforce has had to adapt to the need for new skill sets
  - contracting specialists needed to have a greater knowledge of market conditions, industry trends, and market prices
  - So, instead of analyzing cost proposals, Contract Specialists are now using market forces to determine reasonable prices
- Thus, the increase of both market research and extensive use of price analysis methods
- However, 2001 – 2011 reviews by DOD-IG concluded that new pricing skill sets have not always been present in the purchase of commercial items
- Several initiatives have been introduced to improve pricing skill sets such as regulations, handbooks, DAU courses
- Our research focused on collecting and interpreting price analysis data from contract files since 2012 and data from personnel surveys to determine if pricing skill sets appear to be improving

## **The overall goals of the project:**

Can the researchers conclude that DoD is doing a better job in pricing commercial items?

Can DoD do a better job in pricing our commercial purchases?



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# Description of Data and Methodology





# Description of Data and Methodology

- data from contract files
- data from survey answers.

Please indicate you have identified counts			Please identify counts	
Army	DAWIA- Level 1	No	11	
Army	DAWIA- Level 1	Yes	25	
Army	DAWIA- Level 2	Yes		
Army	DAWIA- Level 2	Yes		
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Army	DAWIA- Level 3	Yes		
Army	Other (Please Specify) No certification Yes	Yes		

Comparison of Proposed Prices

Answer questions 17-18 only if Comparison of Proposed Prices received in response to the solicitation were used in determining price reasonableness and documented in the pricing memorandum on file.

\*Note: Using Proposed Prices (FAR 15.403-11(1)). Any proposed price used as a base for prices analysis must meet the general requirements.

- The price must be submitted by a firm competing independently for contract award.
- The price must be part of an offer that meets Government requirements. (Technically Acceptable)
- Award must be made to the offeror whose proposal represents the best value to the Government.
- For SEALED BIDDING ONLY –Were offers responsive to the Govt. requirement?

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17) Was a price from an offeror whose proposal was technically unacceptable used for price comparison basis?  Yes  No

18) Was a price from an offeror whose proposal was determined to be non-responsive used for price comparison basis in the pricing memorandum?  Yes  No

\*Please proceed to question #30 when finished with questions #17-18.

Comparison of Historical Prices

Answer questions 19-21 only if comparison of the proposed prices to historical prices paid, whether by the Government or other than the Government, for the same or similar items were used in determining price reasonableness.

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19) Comparison of the proposed prices to previous prices paid, whether by the



# Contract File Review Data Collection

- We visited 4 DoD sites
- Looked at three years of contract files at each site
- Randomly sampled 30 contract files from each site
- Two checklists were created to look at:
  - Procurements that utilized Simplified Acquisition Procedures (SAP) under FAR Part 13, and
  - Procurements that utilized FAR Part 15 Negotiation Procedures (> \$150K)



## To review

- whether the end user **provided pre-solicitation documentation** (IGCE and market research),
- whether the documentation provided could be **substantiated**, and
- what procurement **procedures and price analysis method(s)** were used by the contracting specialist to determine fair and reasonable pricing.





# Contracting Personnel Survey Design and Subjects

- **Survey Design**

- It had 22 questions (last questions were just for supervisors)
- Went to 3 different DoD sites
- Went to about 200 people

- **Survey Responses**

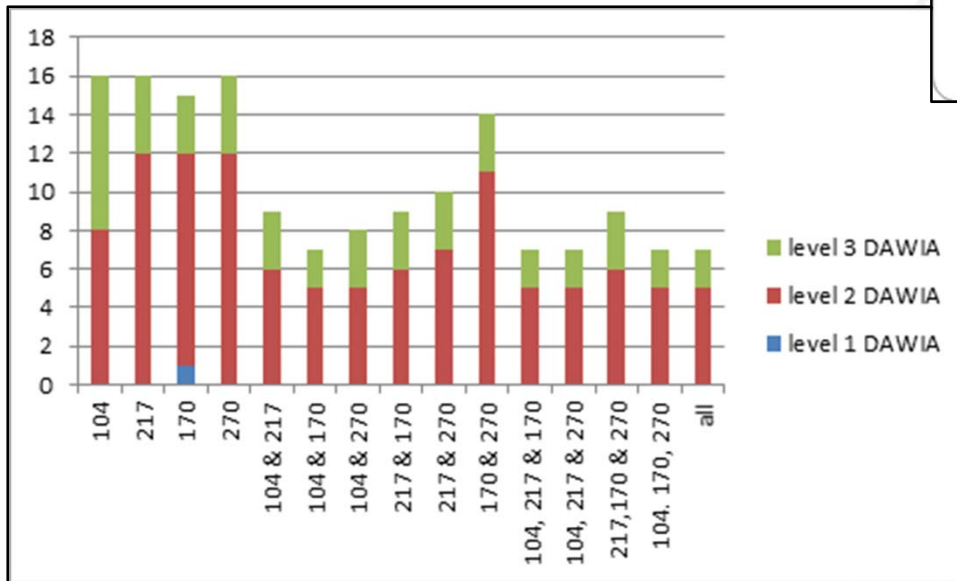
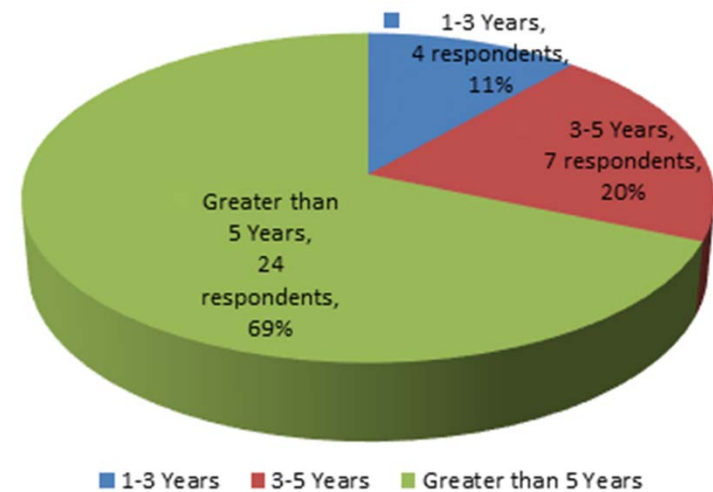
- 36 of the 46 respondents consented to the use of data (used 36)
- 94% were DoD civilians, and 6% were active duty
- 20% were supervisors
- 92% of them dealt with commercial (36% non-commercial) item procurements daily



# Background on the Contracting Personnel survey's subjects

Survey had four distinct parts:  
(1) demographic information,  
(2) acquisition information,  
(3) pricing information, and  
(4) supervisory information.

### Years of Acquisition Experience



**7 of the 36 respondents were supervisors (19.44%):**

- 2 were level 2 DAWIA certified
- 5 were level 3 DAWIA certified

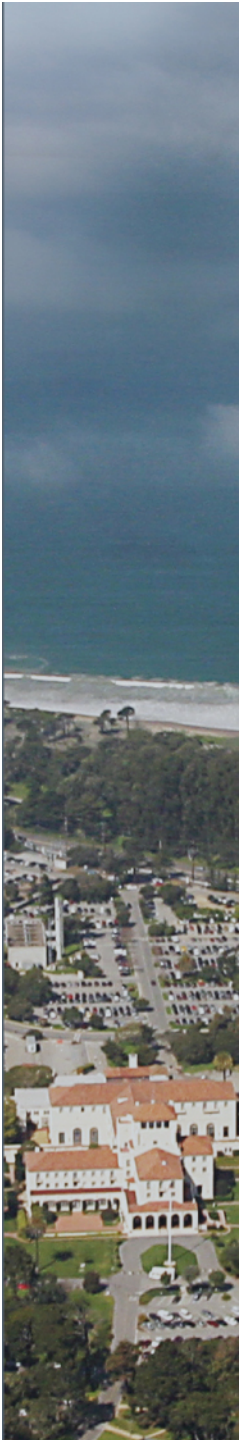


- what **types of acquisitions** the contracting personnel were working on a daily basis.
- what **methods of price analysis** the contracting personnel utilized most often
- personnel had received **appropriate training** in the **price analysis techniques**.
- how **senior contracting personnel** viewed their **subordinates' price analysis abilities** and to determine whether they were aware of any shortcomings in contracting personnel's knowledge levels



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# Data analysis and Recommendations





# Research Questions addressed

1. To what extent do pricing memos state the method of price analysis used in documenting price reasonableness. What price analysis methods are being used?
2. Do market research reports refer to market information that improves the buyers' understanding of pricing in the marketplace?
3. To what extent do pricing memos deviate from FAR/DFARS requirements? What type of reviews are being done to validate the quality of pricing memos and appropriate documentation?
4. What was the justification for price reasonableness used in the acquisition of a supply versus a service? Are the justifications similar? If not similar, what are the differences?
5. Do pricing memos use independent government cost estimates for price comparison? Do the IGCEs include sufficient justification/supporting information behind the cost estimates?
6. Why do contract/purchase order files lack price reasonableness determinations?
7. Is the current training specific to commercial items and price analysis sufficient for our contracting personnel?
8. Can we conclude that the DoD is doing a better job in pricing commercial items? Can the DoD do a better job in pricing commercial purchases?



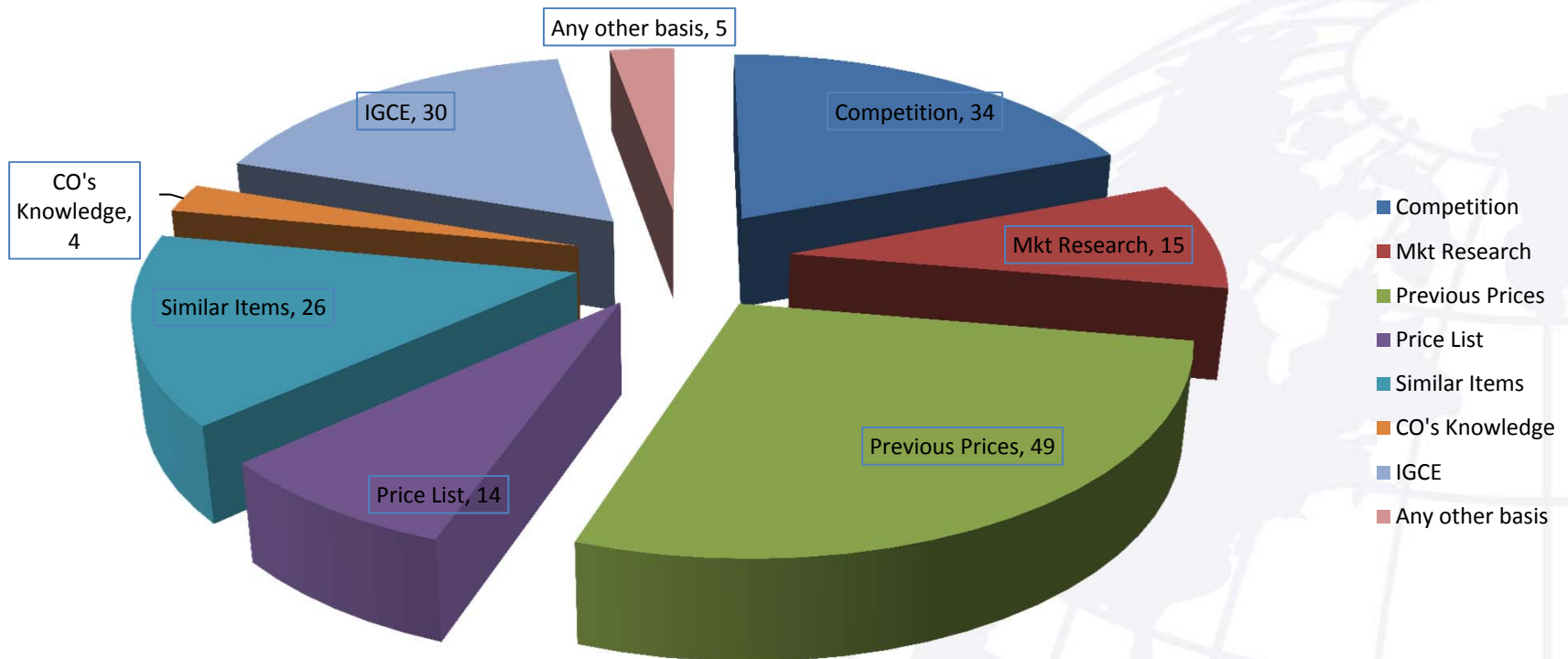


- To what extent do pricing memos state the method of price analysis used in documenting price reasonableness. What price analysis methods are being used?



# What price analysis methods are being used?

## Price Justification (Supply & Services)





## Method: “proposed prices to previous prices paid”

- FAR 15.4 requires a determination and documentation on:
  - whether the original price was reasonable?, and
  - second, is the previous price comparable?\*

\*(previous price needs to be adjusted to make an apple-to-apple comparison to the offered price)

- FAR 13.1 requires only a statement referring to the price reasonableness determination used for comparison basis
  - No mention of documentation or any further considerations
- So, limited analysis is not occurring for Commercial items purchased under SAP for this method

**Note: Not verifying that a previous analysis was performed has been a recurring issue on sole source commercial items as reported by oversight organizations.**



## Research Question 3

- To what extent do pricing memos deviate from FAR/DFARS requirements?



# To what extent do pricing memos deviate from FAR/DFARS requirements?

Summary of Price Analysis Methods Improperly Justified	Under \$150,000	Over \$150,000
Inadequate price competition	0 of 31	0 of 3
Incomplete statements based on references to market research	1 of 14	1 of 1
Acceptance of prior prices without establishing their reasonableness	6 of 49	1 of 1
Incomplete references to current price list, catalog, or advertisement	0 of 15	0 of 0
Incomplete comparison with prices of similar items	6 of 26	0 of 0
Incomplete statement of price reasonableness by contracting officer	3 of 4	0 of 0
Incomplete comparison with IGCE or use of unreliable IGCEs	24 of 27	4 of 5
Incomplete statement for price reasonableness for any other reasonable basis	0 of 4	0 of 1
Totals of inadequate documentation	40	6





## To what extent do pricing memos deviate from FAR/DFARS requirements?

- **Findings:** A number of contract files that the authors reviewed were unable to demonstrate that prices paid were reasonable .
- From the data reviewed, the authors determined that the personnel involved in performing these contract actions **did not include sufficient documentation to support the price analysis method used**

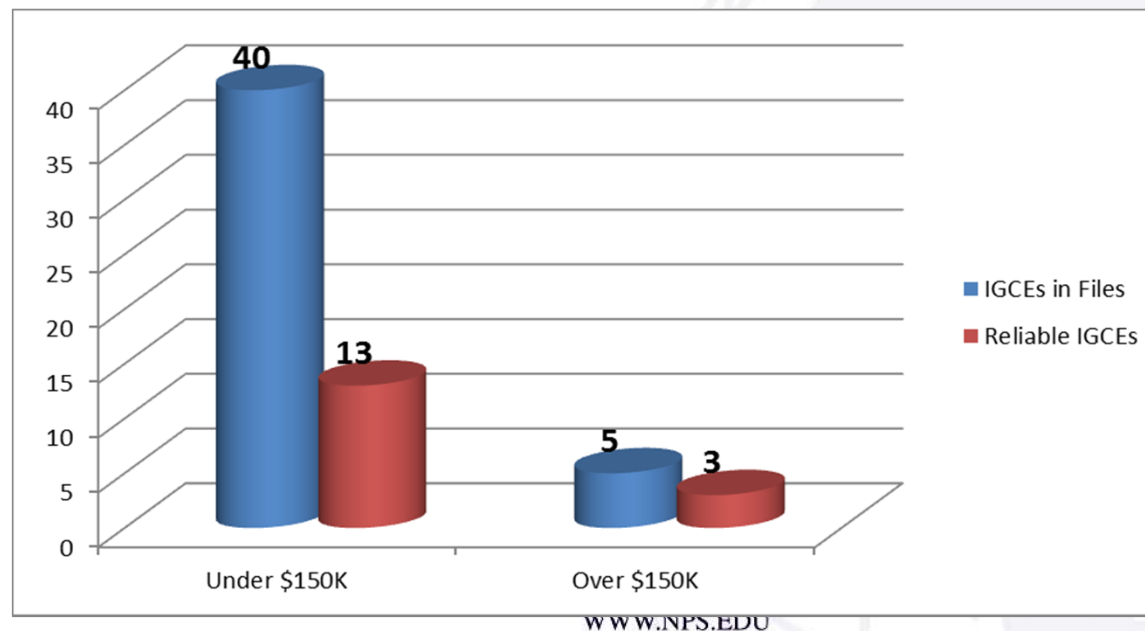


- Do pricing memos use independent government cost estimates for price comparison? Do the IGCEs include sufficient justification/supporting information behind the cost estimates?



## Do the IGCEs include sufficient justification/supporting information?

- **Findings:** Next to previous prices, IGCEs were the next heavily used as the basis for price reasonableness, essentially 25% of the contract actions reviewed.
- However, the authors found that 65% of the IGCEs were not substantiated (unreliable).





- Is the current training specific to commercial items and price analysis sufficient for our contracting personnel?



# Is the current training specific to pricing of commercial items sufficient?

## Contracting Personnel Comments About Current Contract Pricing Training:

- “I do not believe that the DAU class does a good job of teaching the requirement. DAU focuses on major weapons/production/trend analysis, etc. It doesn't really teach the basics for the everyday buyer.”
- A non-supervisor response was that “DAU contract pricing training was good ‘theory’ learning, does not always transfer to actual buys being made in the office environment.”





# Is the current training specific to pricing of commercial items sufficient? (cont.)

## DAU Course Content/FAR Part 13 SAP Procedures—

- DAU has significant “**cost analysis**” content in two required DAWIA courses, CON 170 and CON 270;
  - however, price analysis content is very limited.
- **Findings:** Courses do not fully address the application and documentation of fair and reasonable prices by using “**price analysis methods**”, particularly where contracting actions involve pricing for commercial items that use FAR 13 Simplified Acquisition Procedures for up to \$6.5 million.
- **Why is this important?** Nearly all of the commercial item files reviewed used FAR 13 Simplified Acquisition Procedures
- However, maybe it’s the regulations that drive the training so we can’t blame the course content ... For example,



# Is the current training specific to pricing of commercial items sufficient? (cont.)

- FAR 13 Simplified Acquisition Procedures provides little guidance on how to document pricing and even states documentation should be kept to a minimum
- Utilizing the price analysis methods described in FAR Part 15 requires diligence in verifying information and providing clear documentation
- FAR Part 12 (Commercial Items) only states,
  - establish price reasonableness in accordance with [13.106-3](#), [14.408-2](#), or [Subpart 15.4](#), as applicable.
- In conclusion, there is little reason for analysts to use FAR 15.4 for commercial acquisitions under \$6.5 million since it requires more documentation and DAU course content is more geared to FAR 15.4



# Is the current training specific to pricing of commercial items sufficient? (cont.)

## Recommendation:

- DoD needs to relook at analysts' training for commercial item purchases, particularly when using SAP.
- Based on the thousands of actions that are done, FAR Part 13 does not provide enough details or guidance on how to appropriately conduct price analysis.
- As a result, people are buying very expensive commercial items up to \$6.5 million, and they use FAR Part 13 as a basis without proper pricing research.



- Can we conclude that DoD is doing a better job in pricing commercial items? Can DoD do a better job in pricing commercial purchases?



# Can we conclude that DoD is doing a better job in pricing commercial items?

- DoD is not doing a better job in pricing commercial items
- We believe DoD can do a better job
- Next, a discussion of our recommendations for DoD governing officials to consider for improving pricing in commercial purchases





# Capsule form of Our Recommendations and Suggestions

- DoD needs to relook at how **analysts are trained for commercial item** purchases (simplified acquisition procedures).
- DoD needs **oversight** procedures for **documentation for price analysis** (documented and reviewed for completeness and adequacy, even for purchases less than the SAT).
- The authors recommend that **FAR Part 10** require that **pricing be discussed in the market research** reports



# Capsule form of Our Recommendations and Suggestions (cont.)

- Course content/guidebooks/regulations need a focus on **pricing services and reframe price analysis methods to what would be more useful in buying services**
- Propose that government activities increase the importance of IGCEs and consider the following steps:
  - (1) Train contracting personnel on what reliable IGCEs contain and what to document,
  - (2) Train the users on how to reliably develop IGCEs
  - (3) Create an online check system where government IGCEs are accepted if and only if the substantiation is provided, and
  - (4) Acknowledge IGCEs in the FAR/DFAR/PGI with more emphasis than is currently given.
- Standardized electronic filing of contract pricing documents throughout DoD, and standardization of the titling of pricing documents



# Capsule form of Our Recommendations and Suggestions (cont.)

- DoD needs to relook at how contracting personnel are trained in pricing commercial item purchases, (particularly for simplified acquisition procedures)
- DAU courses need to make the following steps to help create the pricing skill sets needed today:
  - (1) Find a way to put more depth in price analysis,
  - (2) Emphasize quantitative techniques that can be used in performing price analysis effectively like indexing, regression, and parametrics (CERs)
  - (3) Develop case studies/exercises tied to real simplified acquisition purchases, including commercial item buys up to \$6.5 million



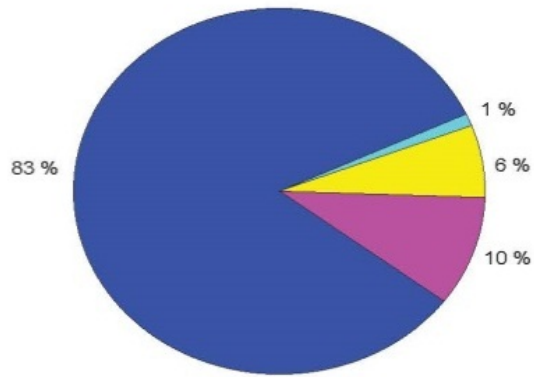
- From a macro view of purchasing, one can appreciate that it appears that only a **few dollars** can be saved in buys under the SAT or even for commercial items up to \$6.5 million per contract action.
- Any serious focus on driving price/cost savings within DoD is not considering lower higher dollar contract actions.
- However, there is an enormous number of lower dollar contract actions that occur every year. See next chart.



# A small dollar of savings multiplied by this vast quantity could equal significant savings.

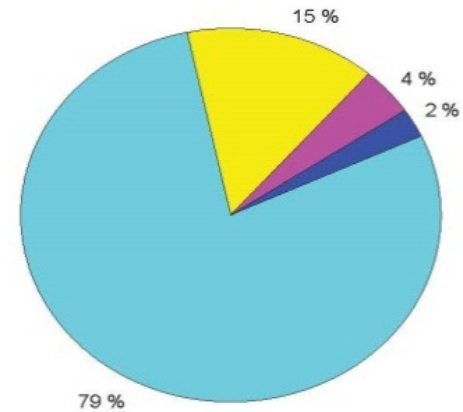
## Federal Procurement Data System - Next Generation CONTRACT ACTIONS BY DOLLAR VALUE Actions Reported - Fiscal Year 2007 through Fourth Quarter

Number of actions for action dollar ranges



< \$25,000	3,280,263
Between \$25,000 and \$100,000	394,087
Between \$100,000 and \$1,000,000	244,209
>=\$1,000,000	55,019

Sum of dollars for action dollar ranges



< \$25,000	\$11,054,768,303
Between \$25,000 and \$100,000	\$18,491,543,257
Between \$100,000 and \$1,000,000	\$68,202,986,756
>=\$1,000,000	\$362,248,980,040





# Ending Remarks

- Our suggestions mean more time/effort into writing better pricing memos for smaller buys
- Many will believe that we will be tripping over millions of dollars to pick up a few thousand
- Our philosophy: **“Take more care of the dollars, and the millions of dollars will take care of themselves.”**
- Thus, if we are not doing a good job at the dollar level how can we at the millions of dollars level



## Future Research Questions to be answered

- Which services are requiring IGCEs?
- Is there a requirement that the IGCE must be substantiated?
- What training is offered to the customer/technical representative on how to develop an IGCE?
- Are the contracting personnel determining if the IGCE is reliable and documenting the same before using it for a price comparison basis?
- Are they effective in determining if the price that the government is paying is reasonable?