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Organization Analytics: Taking Cost-per Dollar Obligated (CPDO) Measures to the Next Level in Defense Contracting

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**Organization Analytics: Taking Cost-per
Dollar Obligated (CPDO) Measures to the Next
Level in Defense Contracting**

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Agenda

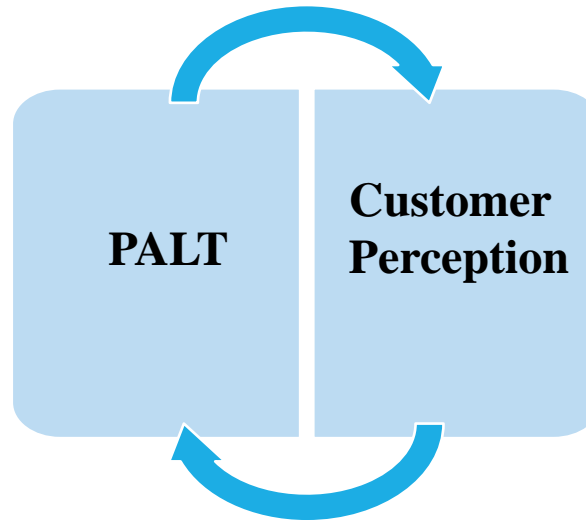
- ▶ Thanks
- ▶ Study Goals
- ▶ Cost per Dollar Obligated – Introduction
- ▶ Methodology
- ▶ Benchmark results
- ▶ Future Research

Key stakeholder interviews identified target areas

“a perfect contract that is late to need is a failure”

“we know the PALT times, contracting can’t meet the PALT times”

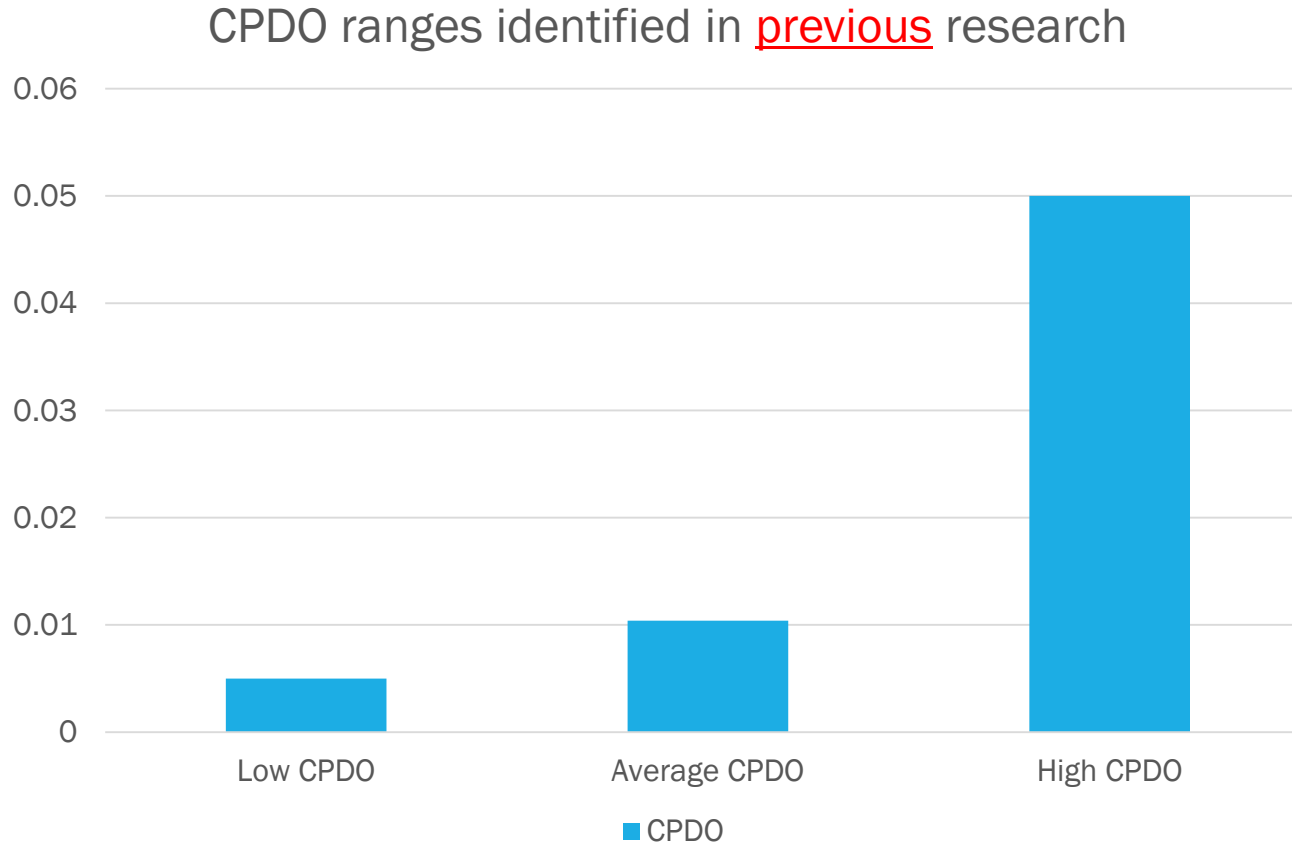
“contract award times are a moving target after they are communicated to the customer”



Cost per Dollar Obligated - Introduction

- ▶ “The most usable, useful measure of workforce alignment to workload...” [also referred to as Cost to Obligate (CTO)]
- ▶ Divide the total cost of operating the organization by the total obligations of the organization
 - ▶ Costs may include labor, infrastructure, IT, other support costs
 - ▶ We use the **absolute value of obligations and de-obligations**
- ▶ Example: \$1M in operating cost/\$100M in obligations = CPDO of .01
- ▶ Works only at an aggregate level
- ▶ Variability depending on procurement type and industry complexity

Cost per Dollar Obligated



**Average
CPDO is
.0104¹**

**Research
range of
CPDOs
is .002 to
.05²**

**What
about
the
quality
of the
action?**

Which CPDO is the best?

Key Performance Indicators

- ▶ In addition to CPDO, we sought performance measures that would provide insight into the two strategic intent focus areas
 - ▶ 1) timeliness
 - ▶ 2) adherence to law/compliance with regulation and policy (obey the rules)

Procurement Administrative Lead Time (PALT) methodology

- ▶ PALT represents the duration of time in days from purchase request acceptance and workload assignment, to contract award, or modification issuance.
- ▶ PALT category types vary by service
- ▶ We utilized PALT categories for:
 - ▶ actions Below the Simplified Acquisition Threshold (SAT) (avg)
 - ▶ actions Above the SAT (avg)

Staff mix and composition descriptive measures

- ▶ We collected other staff measures
 - ▶ Average GS grade for each organization
 - ▶ Total number of staff
 - ▶ Number of non-contracting personnel
 - ▶ Ratio of contracting officers to specialists
 - ▶ Ratio of civilian to military personnel

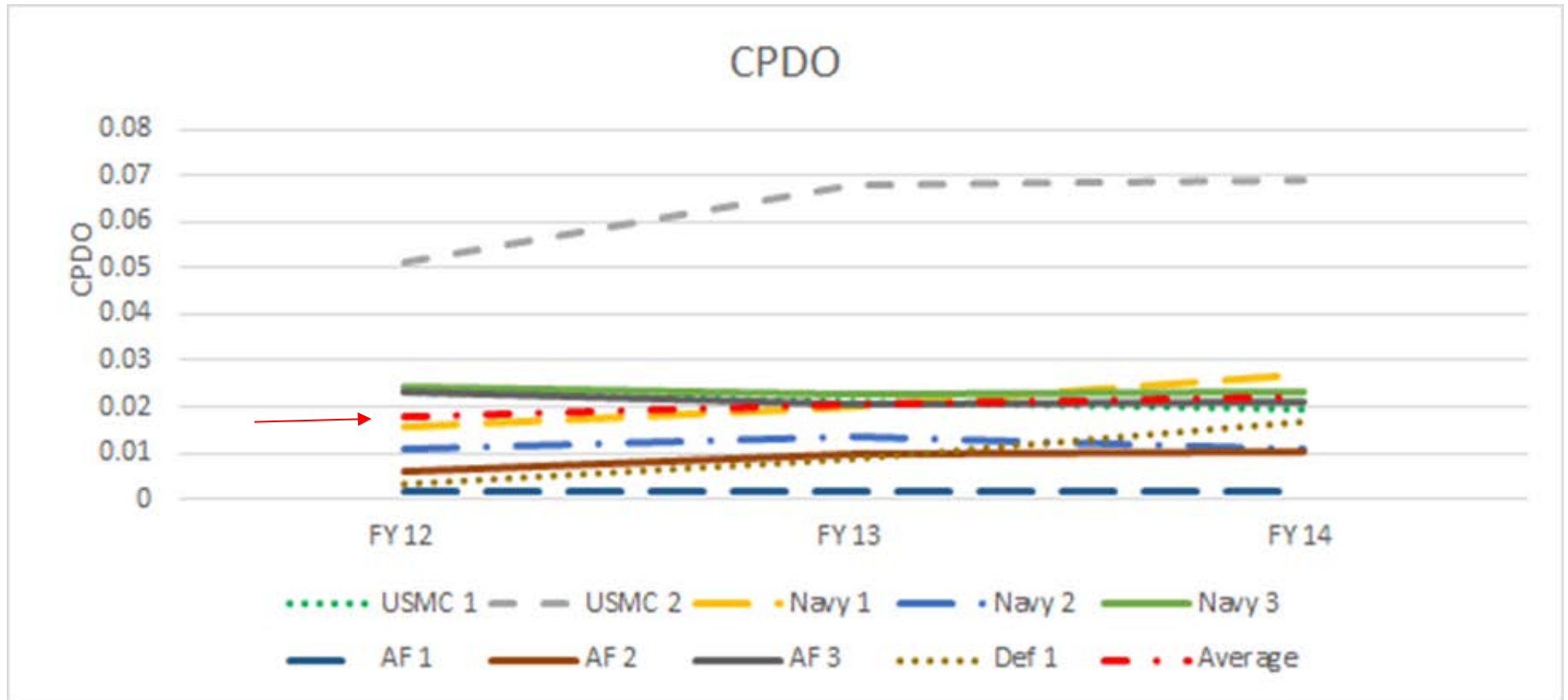
Benchmark organizations

- ▶ Through a combination of researcher colleagues and senior leader introductions, the following list of comparison organizations was identified:
 - ▶ USMC 1
 - ▶ USMC 2
 - ▶ USA 1*
 - ▶ USA 2*
 - ▶ USA 3*
 - ▶ USAF 1
 - ▶ USAF 2
 - ▶ USAF 3
 - ▶ Defense Agency 1
 - ▶ USN 1
 - ▶ USN 2
 - ▶ USN 3

*USA withdrew its support early in the study prior to quantitative data collection

**Average US CPDO is
increasing**

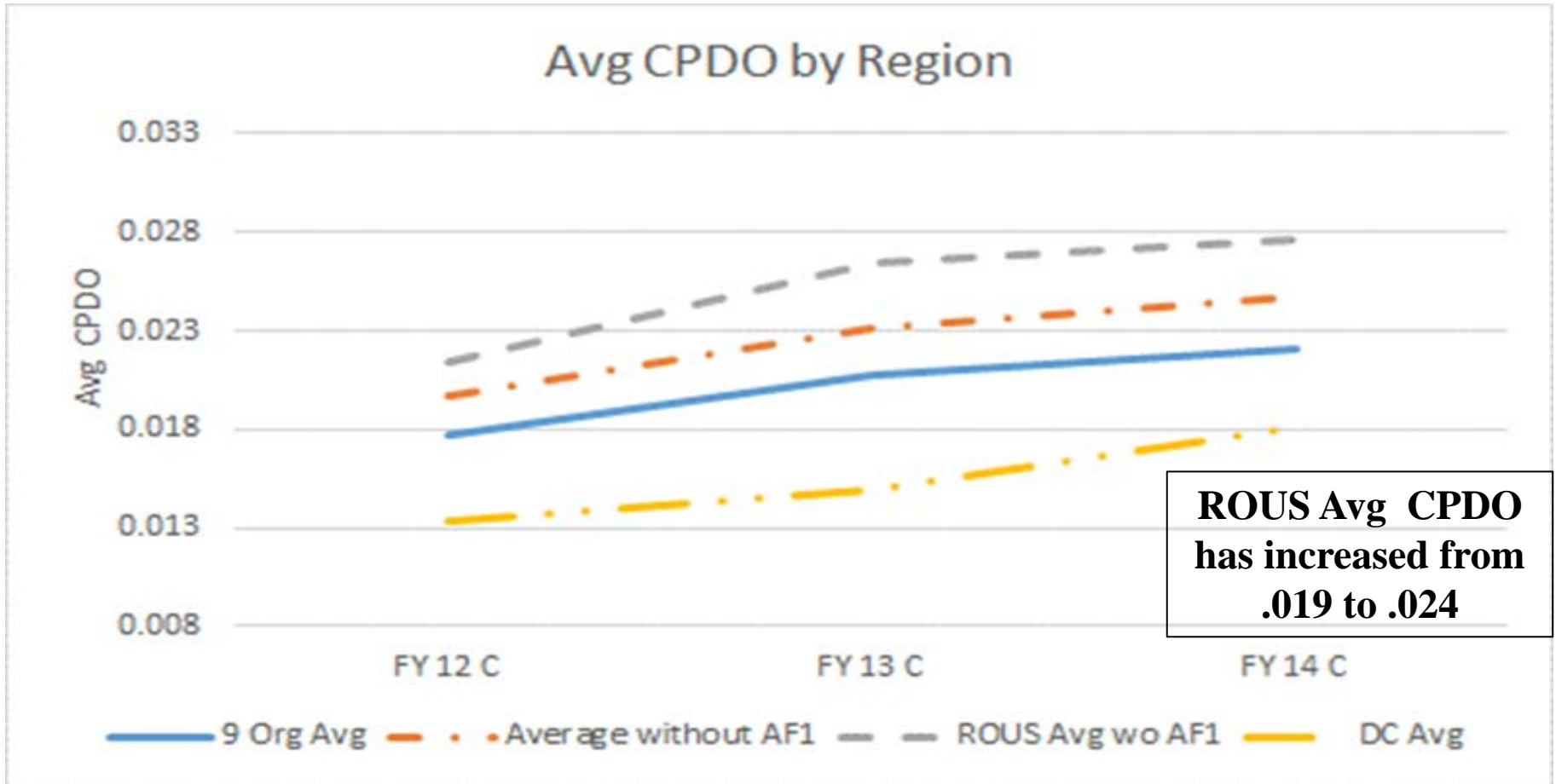
CPDO for all organizations



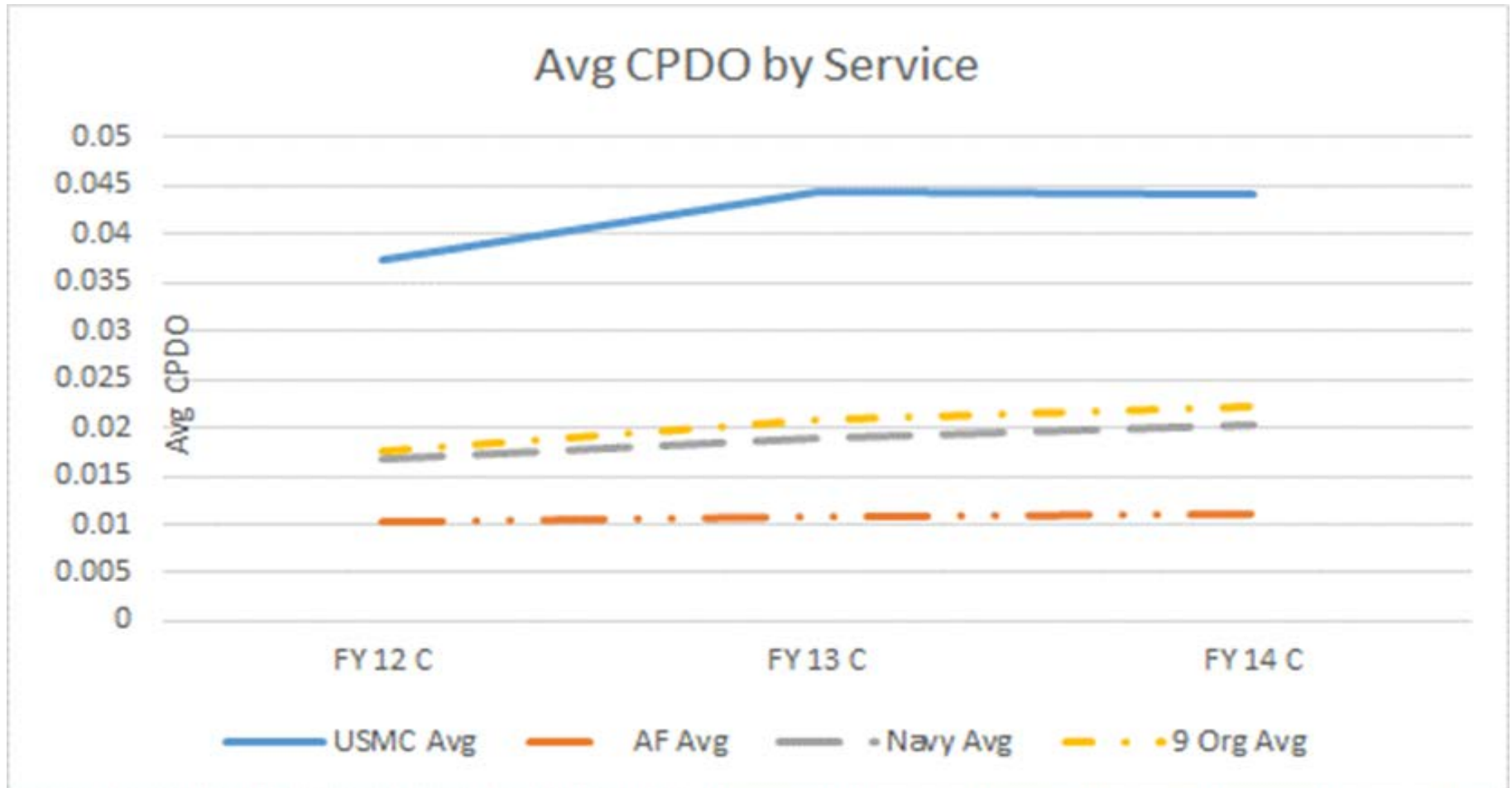
**Avg CPDO has
increased from
.018 to .022**

**All regional CPDO
averages are increasing**

Average CPDO by Region



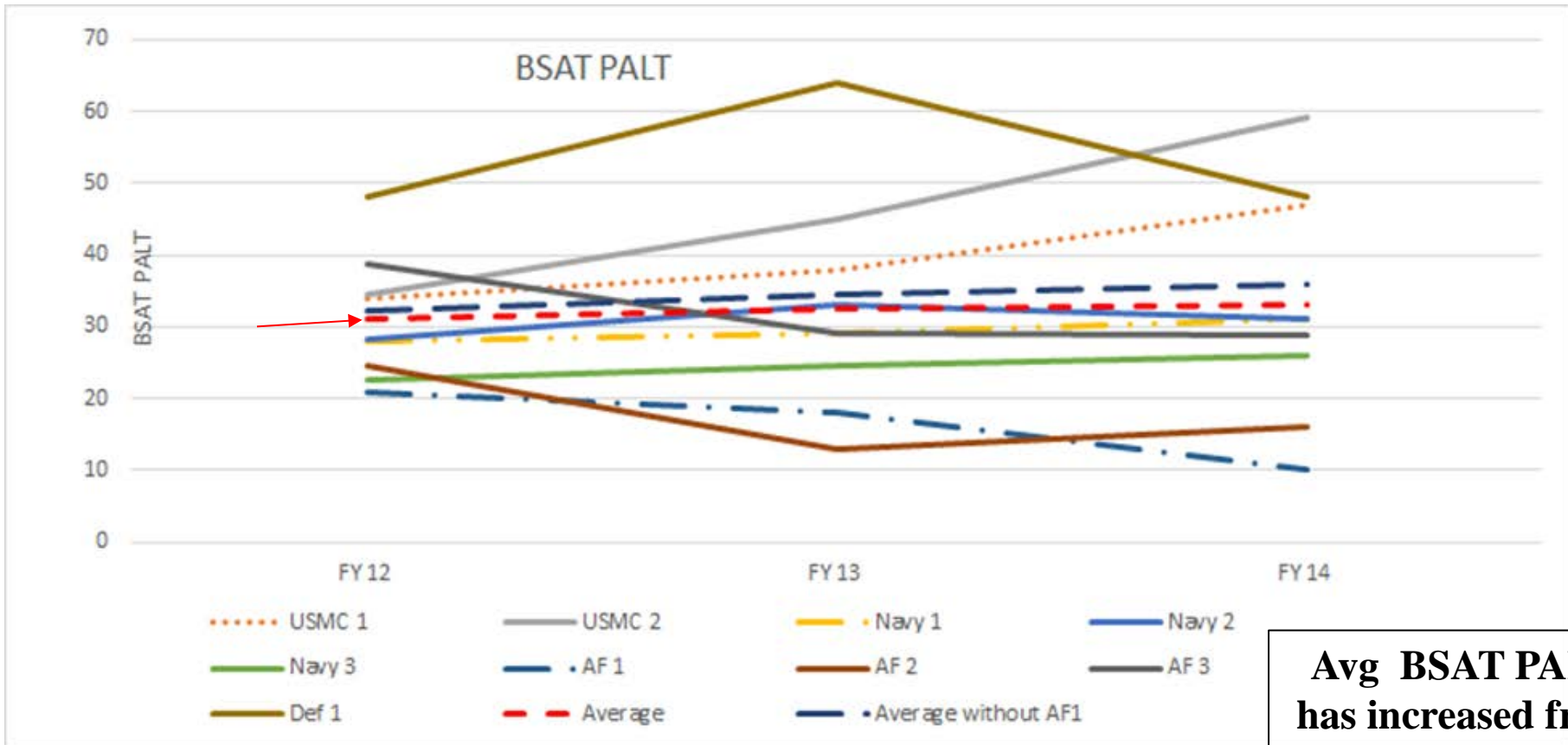
Average CPDO by Service



PALT Analysis

**Average US BSAT PALT
has increased slightly**

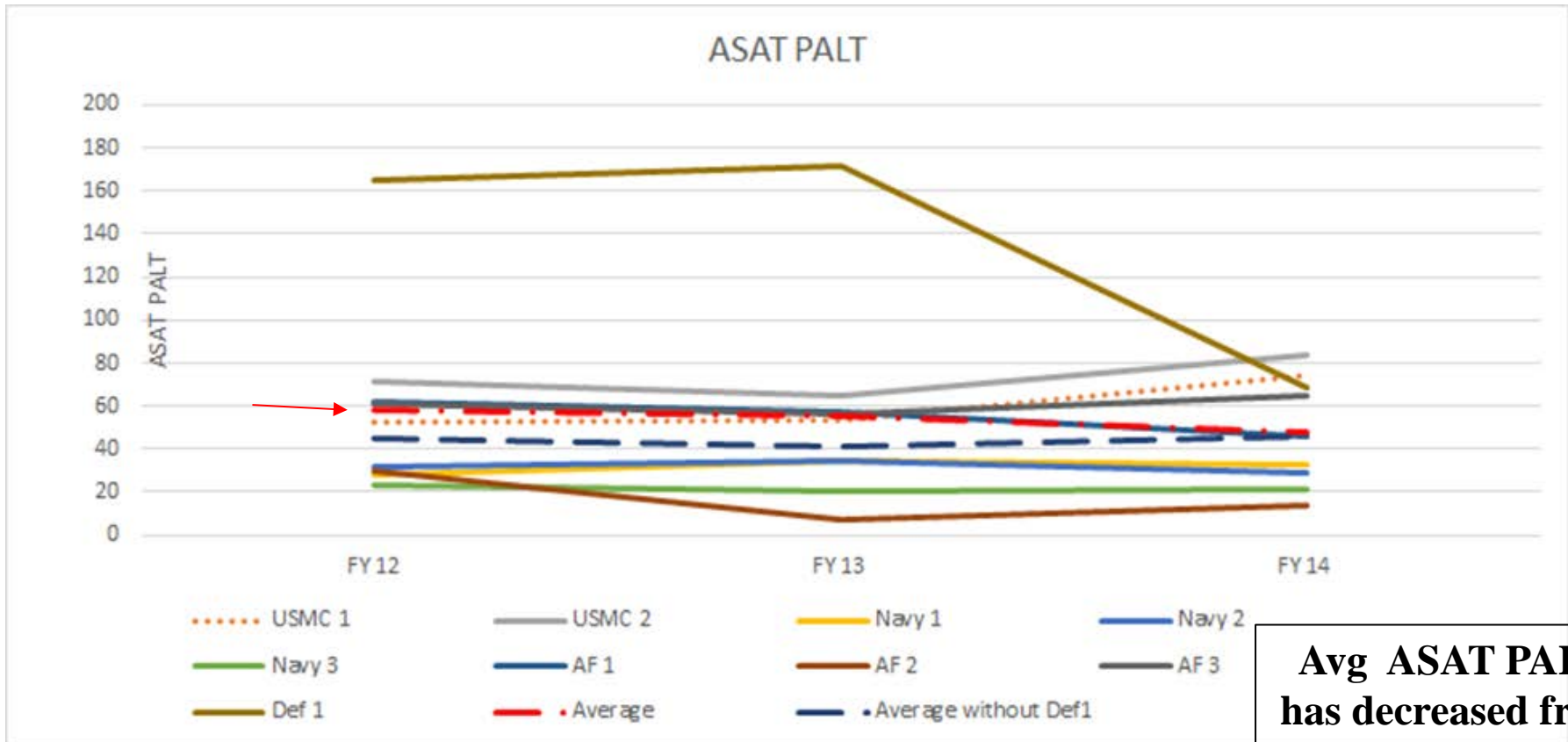
Below the Simplified Acquisition Threshold PALT



**Avg BSAT PALT
has increased from
31 to 33 days**

**Average US ASAT PALT is
decreasing**

Above the Simplified Acquisition Threshold PALT



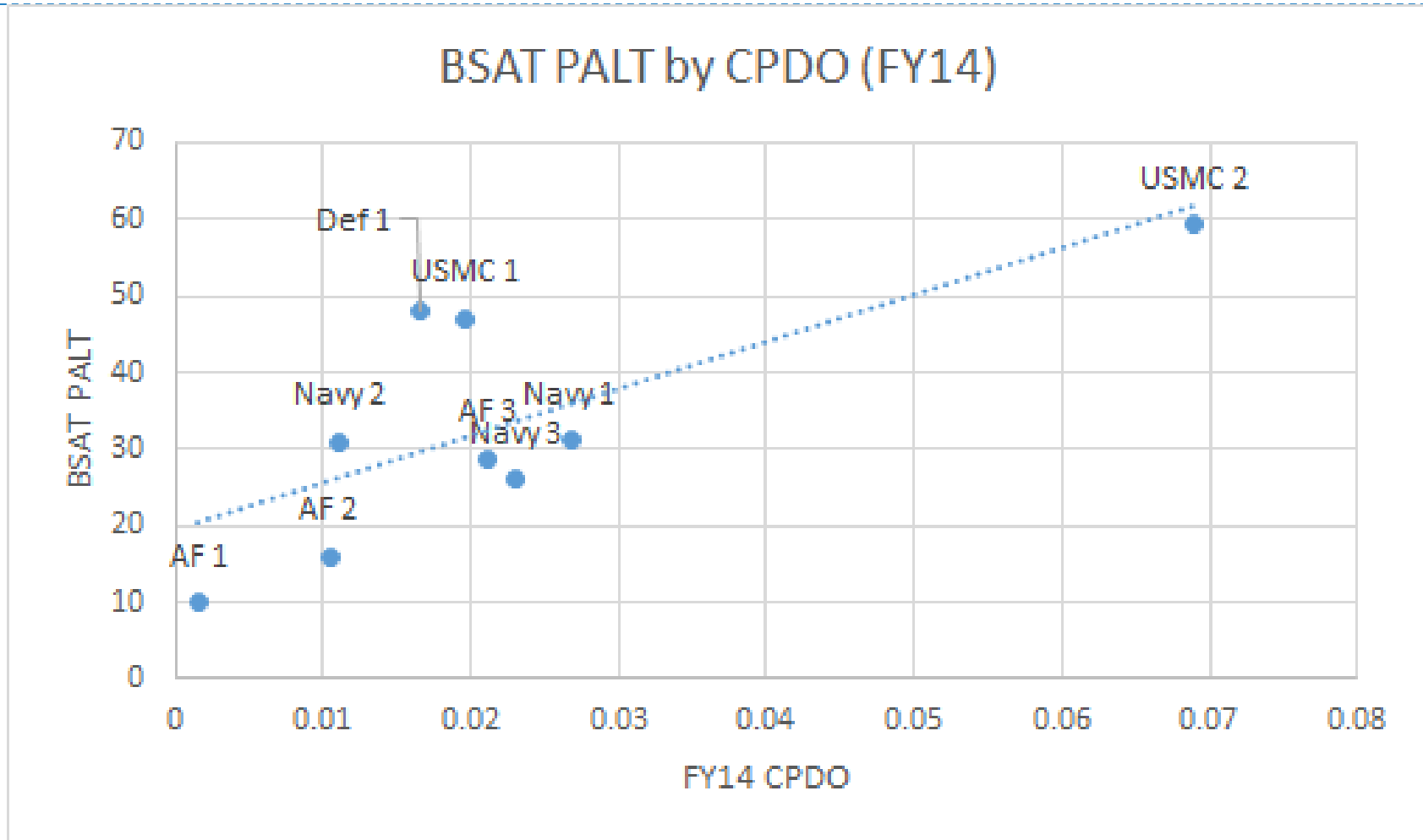
**Avg ASAT PALT
has decreased from
58 to 48 days**

PALT Analysis

**As CPDO increases, Below the SAT
PALT increases.**

PALT BSAT = 25.4 + 341 CPDO (Significance
Level =98%, df =25)

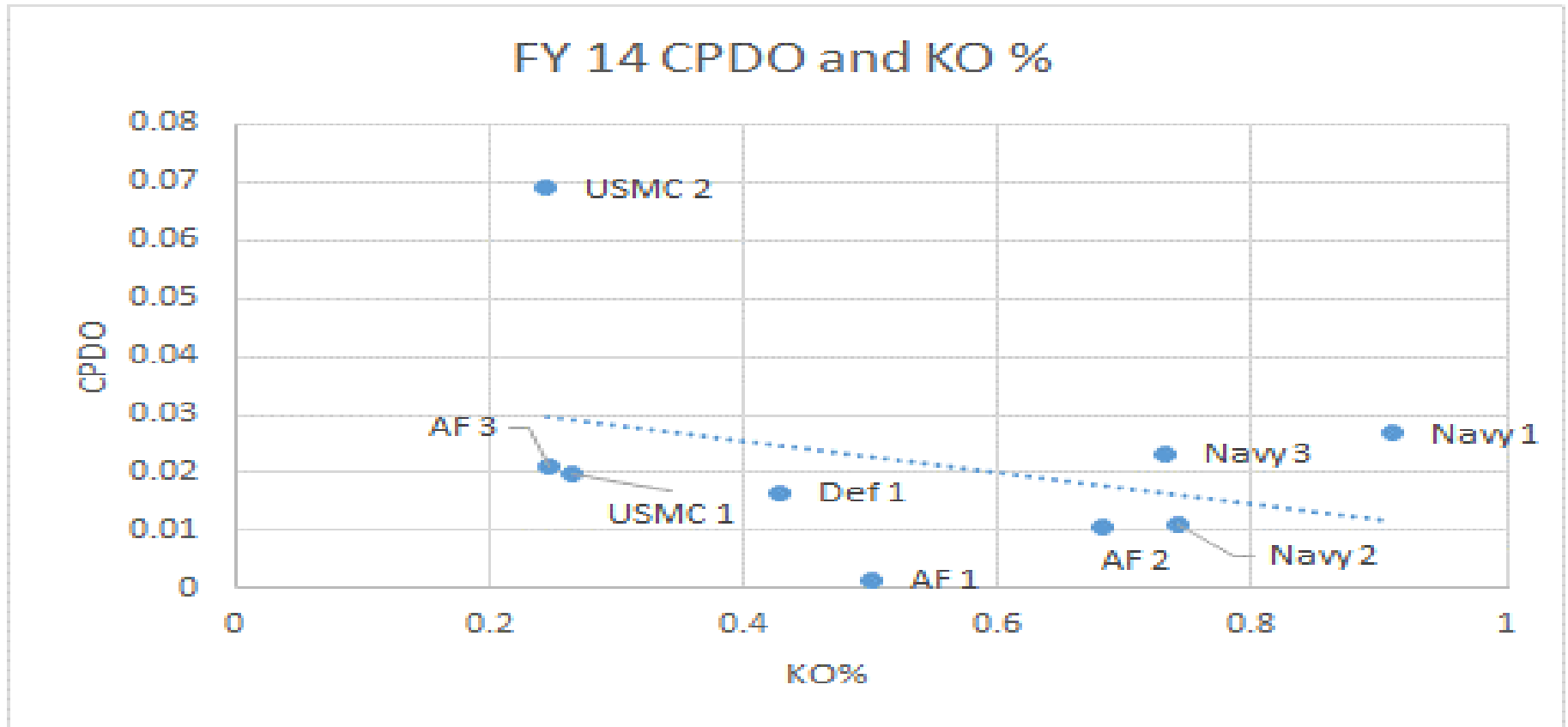
CPDO and Below SAT PALT (FY14)



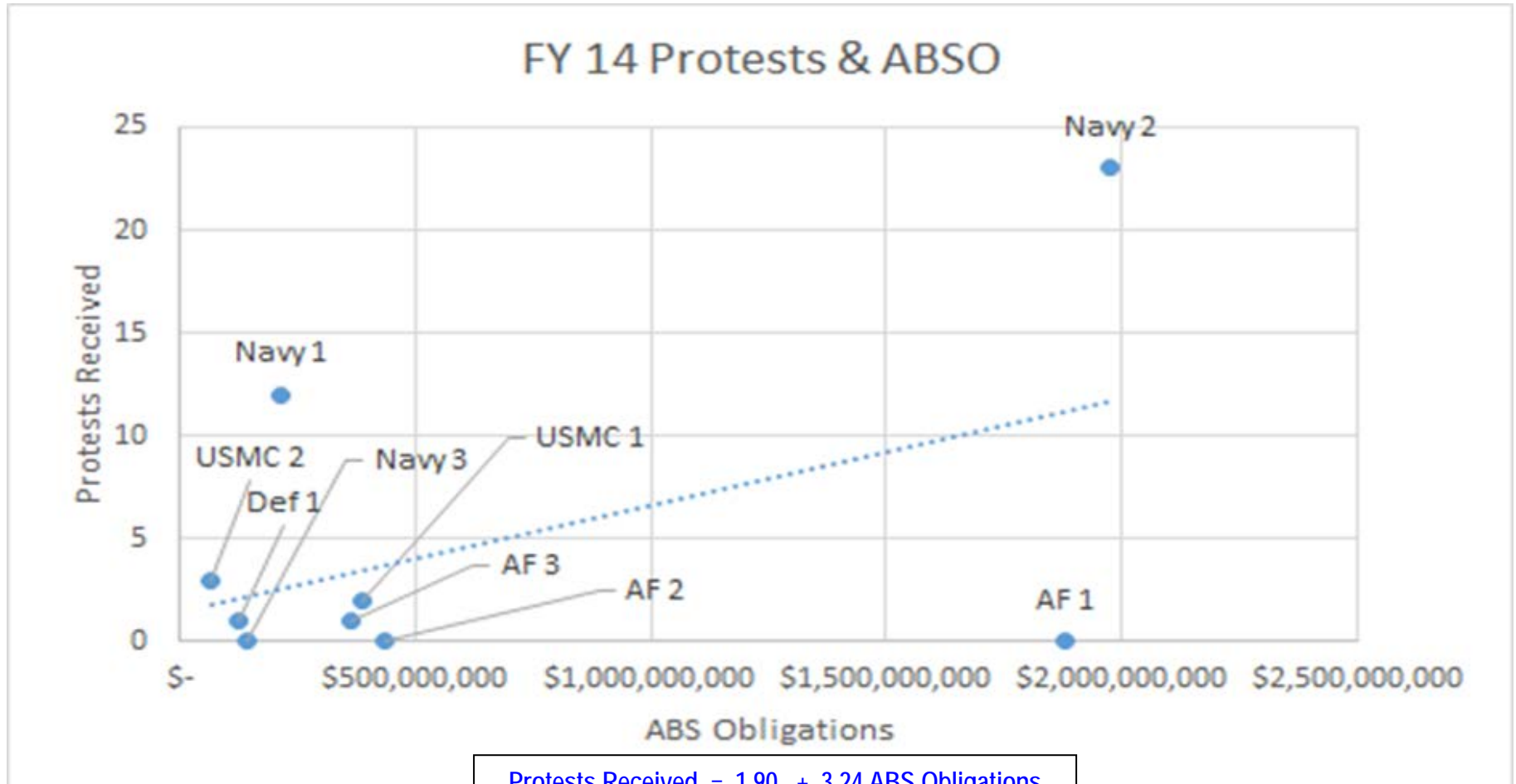
**Organizations with a
higher proportion of
warrants have lower CPDO**

CPDO = 0.0337 + -0.0259 Perc of contracting with warrants
(Significance Level =90%, df =25)

CPDO and Warrants as % of staff

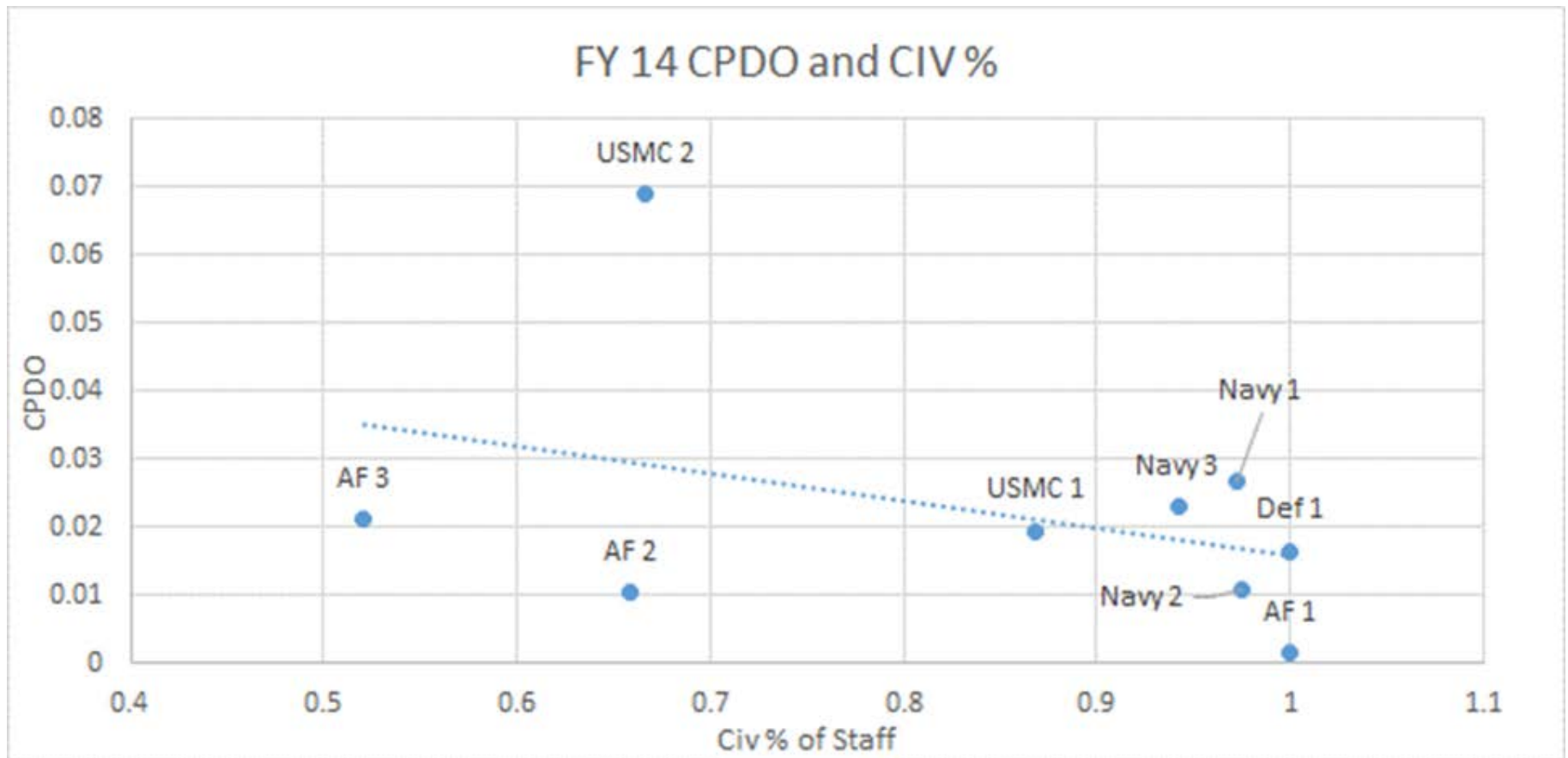


Obligations drive protests



Protests Received = 1.90 + 3.24 ABS Obligations
(\$B) (Significance Level =95.94%, df =25)

CPDO and Percentage of Civilians on Staff



$$\text{CPDO} = 0.0516 + -0.0372 \text{ percent civ}$$

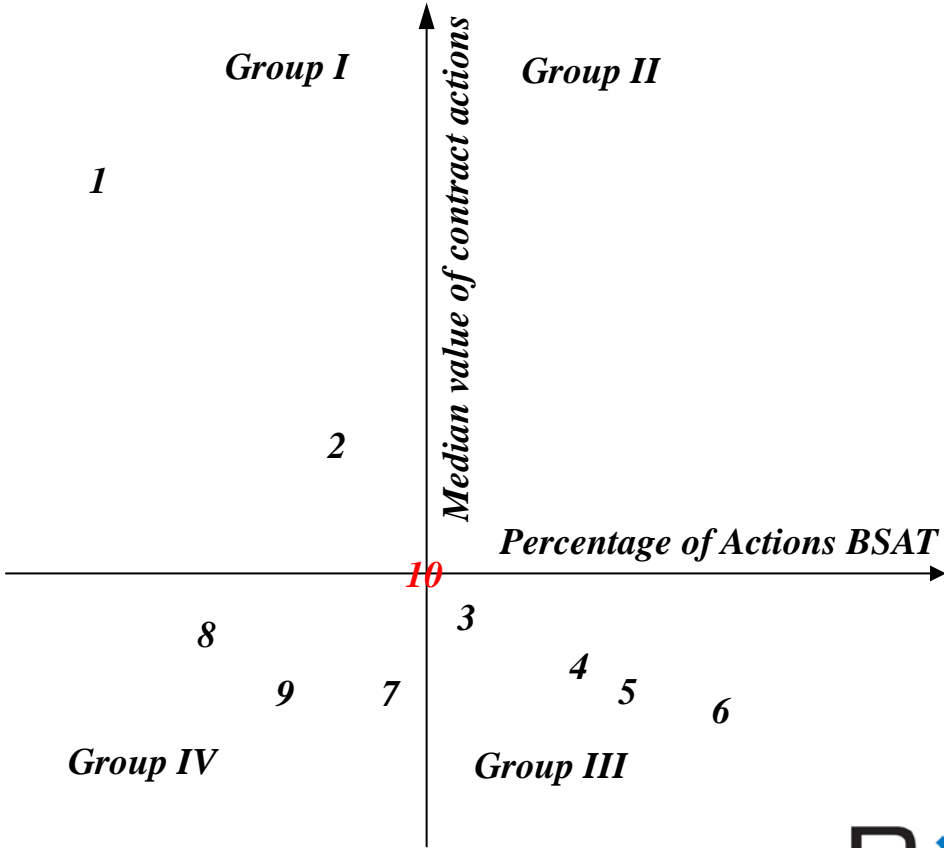
(Significance Level =95%, df =25)

Emergence of a New Contracting Organization Typology

Emergence of a Contracting Organization Typology

Peer comparison groups for each organization

	Organization	Median value of contract action	Percentage of actions below the SAT
1	AF 1	\$267K	46%
2	AF 2	\$102K	71%
3	AF 3	\$44K	79%
4	DEF 1	\$24K	88%
5	USMC 1	\$16K	90%
6	USMC 2	\$12K	95%
7	Navy 1	\$10K	73%
8	Navy 2	\$22K	65%
9	Navy 3	\$10K	69%
10	Average	\$54K	74%



Benchmark CPDO FY 14

“Every contracting leader should know their organization’s CPDO, when it is too high, and when it is too low...”

Organization	Group	CPDO FY 14
USMC 1	3	.019
USMC 2	3	.069
Navy 1	4	.027
Navy 2	4	.011
Navy 3	4	.023
AF 1	1	.002
AF 2	1	.010
AF 3	3	.021
DEF 1	3	.017
Average of Group 1 Peers	1	.006
Average of Group 3 Peers	3	.032
Average of Group 4 Peers	4	.020
Average of All	ALL	.022

CPDO = 0.0337 – 0.0259 x Perc of Contracting with warrant [sig lvl 90.0]

In other words – @ KO 50% CPDO driven down by .013 to .021

How contracting leaders can use CPDO

- ▶ Compare your organization(s) to other contracting organizations:
 - ▶ Within your Service
 - ▶ Within your region
 - ▶ Within your portfolio peer group
- ▶ Benchmark CPDO comparisons identify organizations with best-in-class processes which the agency can leverage
- ▶ Knowledge of CPDO facilitates leaders' decisions regarding the cost of assisted acquisition services, and the transfer (or assignment) of work to the appropriate execution organization
- ▶ CPDO assessments enhance leaders' visibility into the distribution of scarce resources, including appropriate staffing of organizations by efficiency and portfolio type
- ▶ Organizational characteristic analysis identify opportunities to shape the organization (e.g. through warrant policy, GS grades, etc.) to influence CPDO and other performance measures

Future Research

- ▶ Verify the emerging typology and regional findings by increasing the number of organizations studied - further enhance the usability of benchmark CPDO findings
- ▶ Identify Service contract execution characteristics that are impacting differences in CPDO – share leverage points
- ▶ Examine warrant number and type in additional organizations – develop portfolio dependent models for KO warrants
- ▶ Investigate the impact of military-civilian mix on CPDO
- ▶ Further analyze organization portfolios (percentage of actions that are task orders, full contracts, basic vehicles, etc.) to optimize contracting organization typology

Thank you!

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