



## Defense Acquisition in Transition

6<sup>TH</sup> ANNUAL ACQUISITION RESEARCH SYMPOSIUM

# Managing the Services Supply Chain in the Department of Defense: An Empirical Study of Current Management Practices

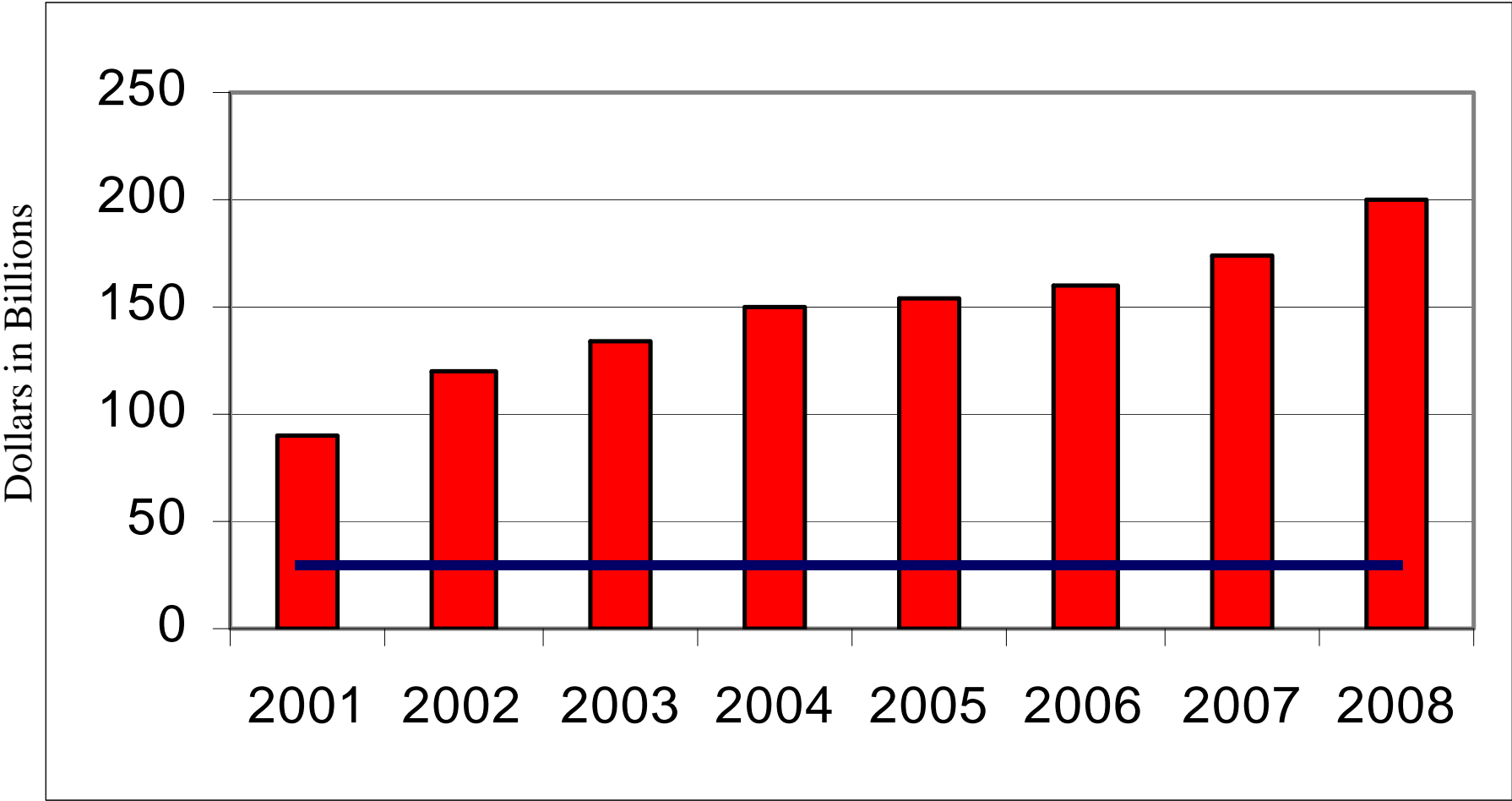
Aruna Apte, Uday Apte, Rene Rendon

Naval Postgraduate School

# Overview

- Previous Research Findings
- Current Research Focus
- Research Survey Results
- Conclusion

# DoD Services Acquisition Environment



**DoD Spending on Services**  
(Adapted from GAO data)

# Managing the Service Supply Chain in the Department of Defense: Ongoing Research

FY 2006: Opportunities and Challenges

FY 2007: Implications for a Program Management Approach

FY 2008: An Empirical Study of Current Management Practices (Navy and Air Force)

FY 2009: An Empirical Study of Current Management Practices (Army)

# Previous Research Findings

- Continued growth in the volume of services acquisition in DoD
- It is difficult to establish service specifications and measure and monitor service output and quality. Hence, having on board the right number of skilled acquisition personnel is highly critical. The observed downsizing of contracting workforce does not appear to be in line with this need.

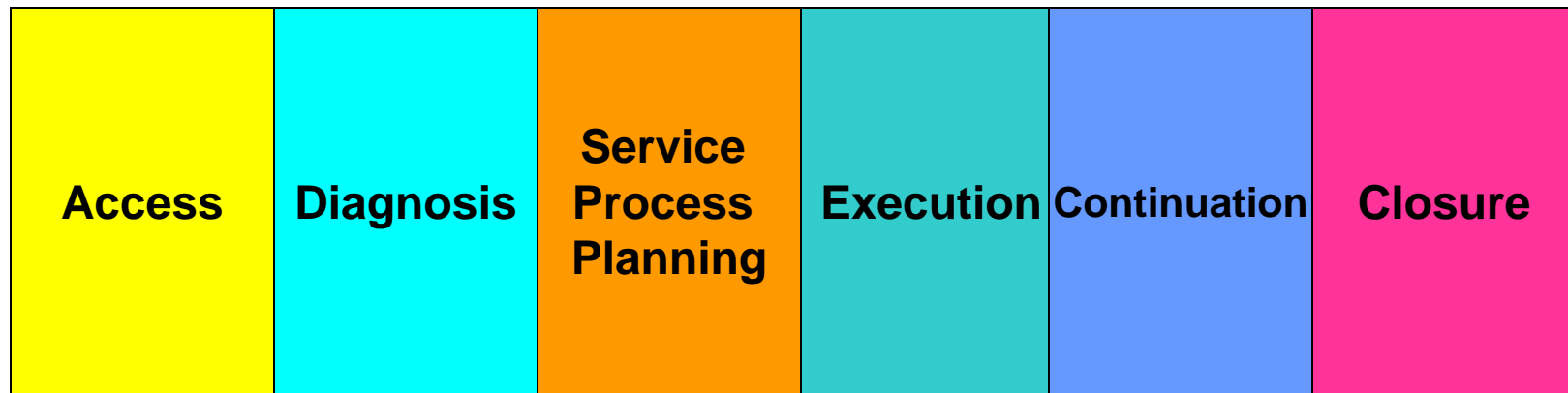
# Previous Research Findings

- The management infrastructure for the acquisition of services is less developed than that for acquisition of products and systems.
- Less formal approach to the acquisition and management of services
- Lack of standardization of business practices in services acquisition

# Previous Research Findings

- Traditional approach to managing services acquisition does not incorporate a project/program management approach
  - Well-defined, disciplined methodology and infrastructure
  - Centralized, coordinated management
    - Designated manager with project authority
    - Integrated cross-functional teams
    - Enabling organizational structure
    - Project lifecycle
    - Integrated processes

# Services Life Cycle (Conceptual)

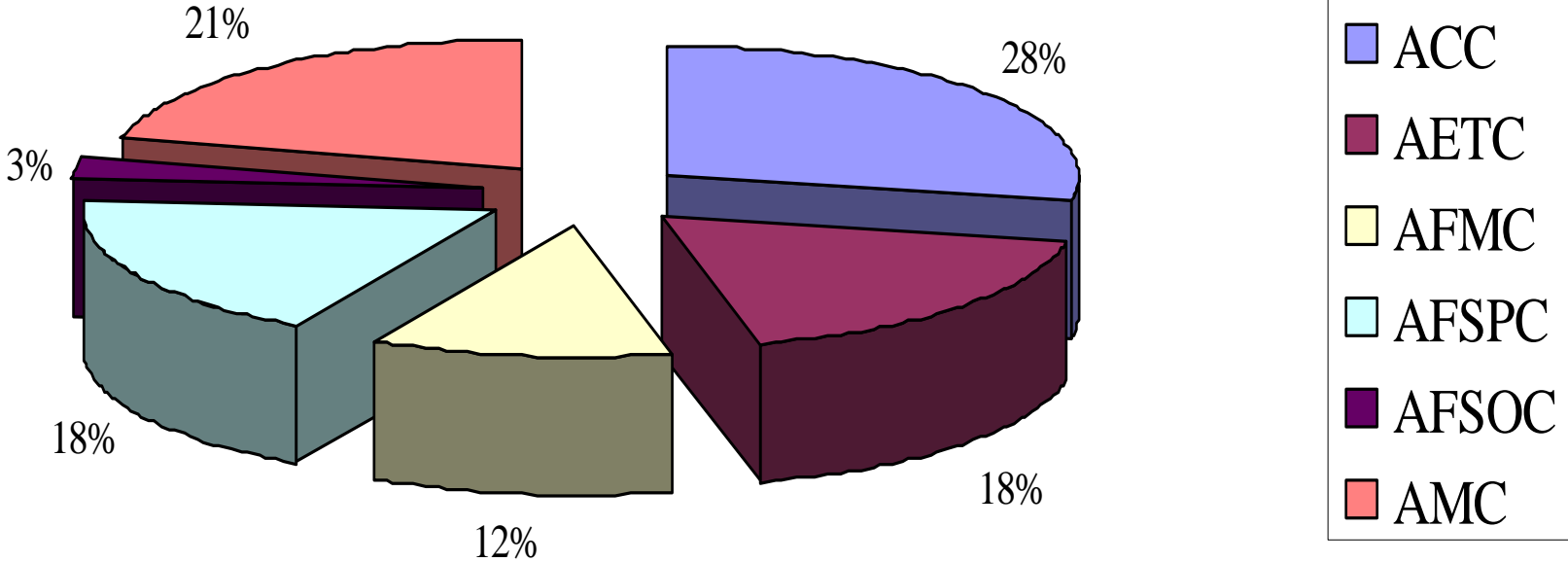




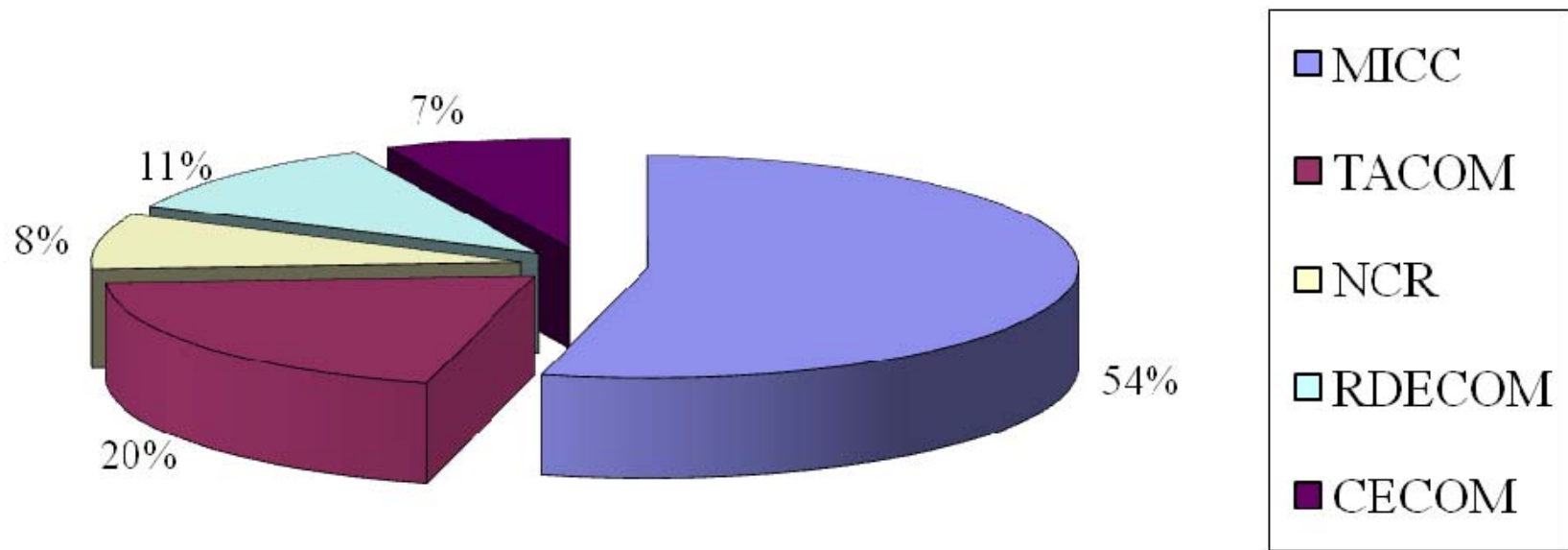
# Current Research: An Empirical Study of Current Management Practices

- On-line anonymous survey deployed to Navy, Air Force and Army contracting organizations
- Survey questions focused on:
  - Contract characteristics
  - Program management methods
- Air Force  $n = 34$  responses (68% response)
- Army  $n = 61$  responses (75% response)
- Navy  $n = 66$  responses (87% response)

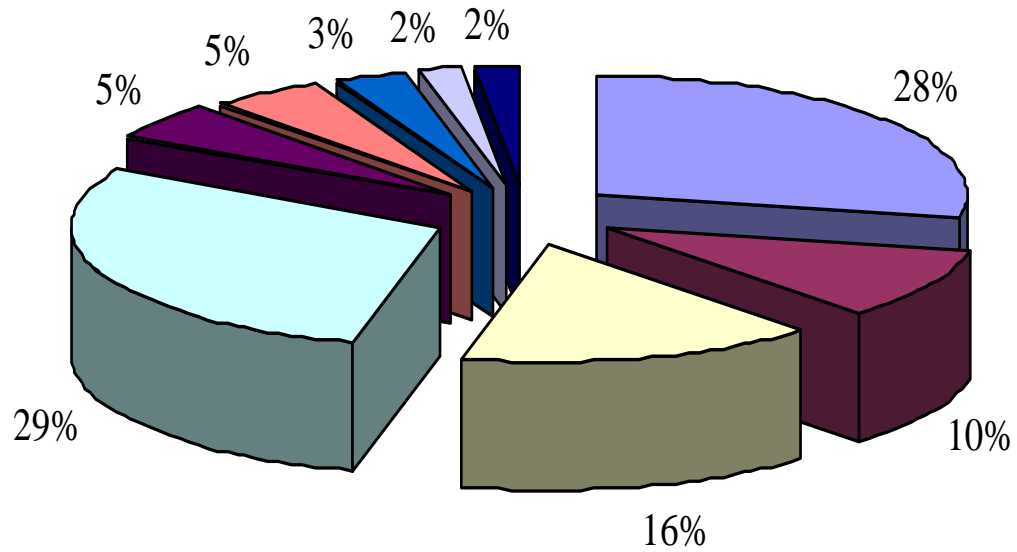
# Air Force Major Commands



# Army Major Commands



# Navy Major Commands



- Mid-Atlantic
- Washington D.C.
- Southwest
- South Atlantic
- Midwest
- Northwest
- NAVFAC
- NAVSUP
- NMLC

# Current Research:

## An Empirical Study of Current Mgmt Practices

- What types of services are typically procured at military installations?
- What type of acquisition strategy, procurement method, and contracts are used in these services acquisition?
- How is the service acquisition process managed? What program management concepts—such as project managers, project teams, lifecycle, are used?

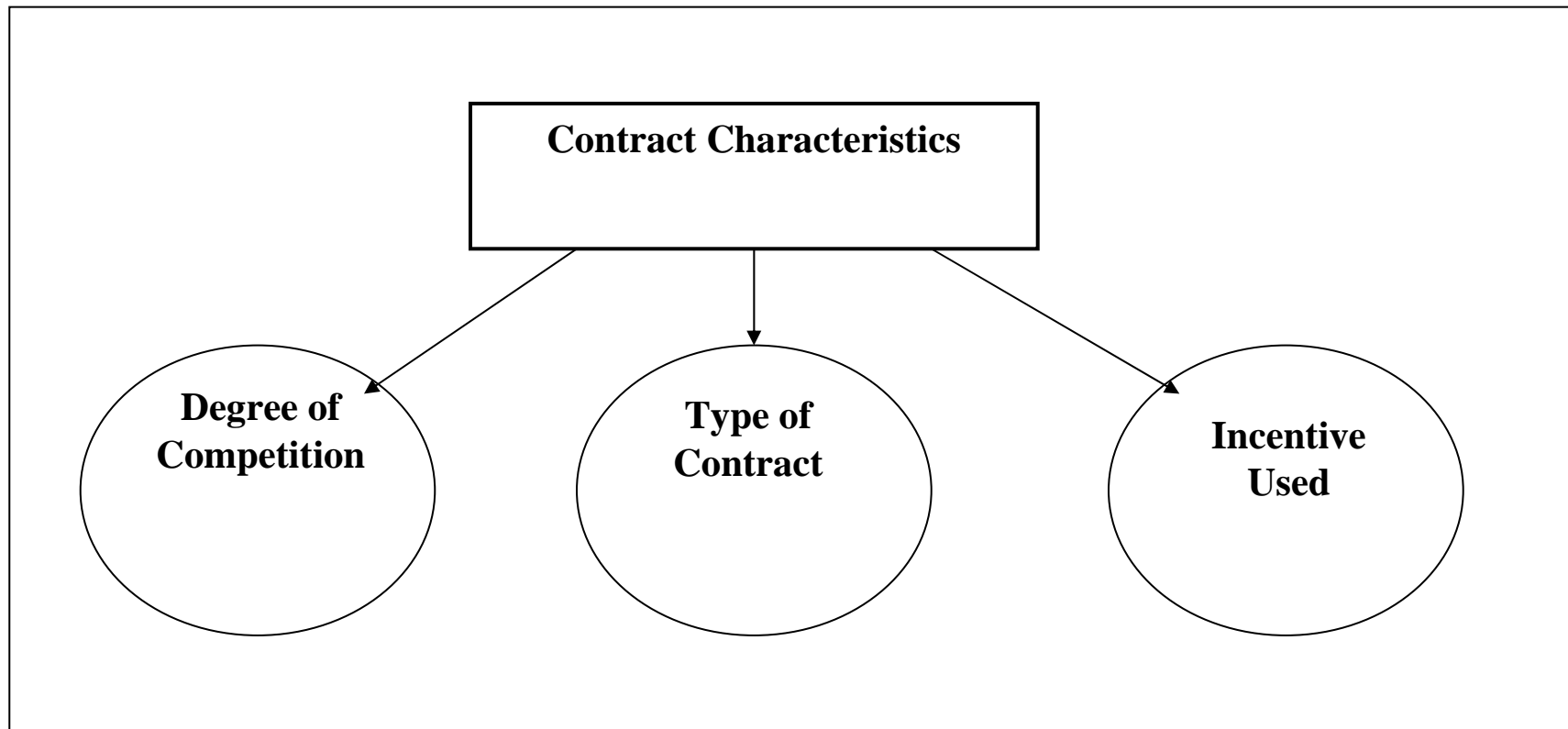
# Current Research:

## An Empirical Study of Current Mgmt Practices

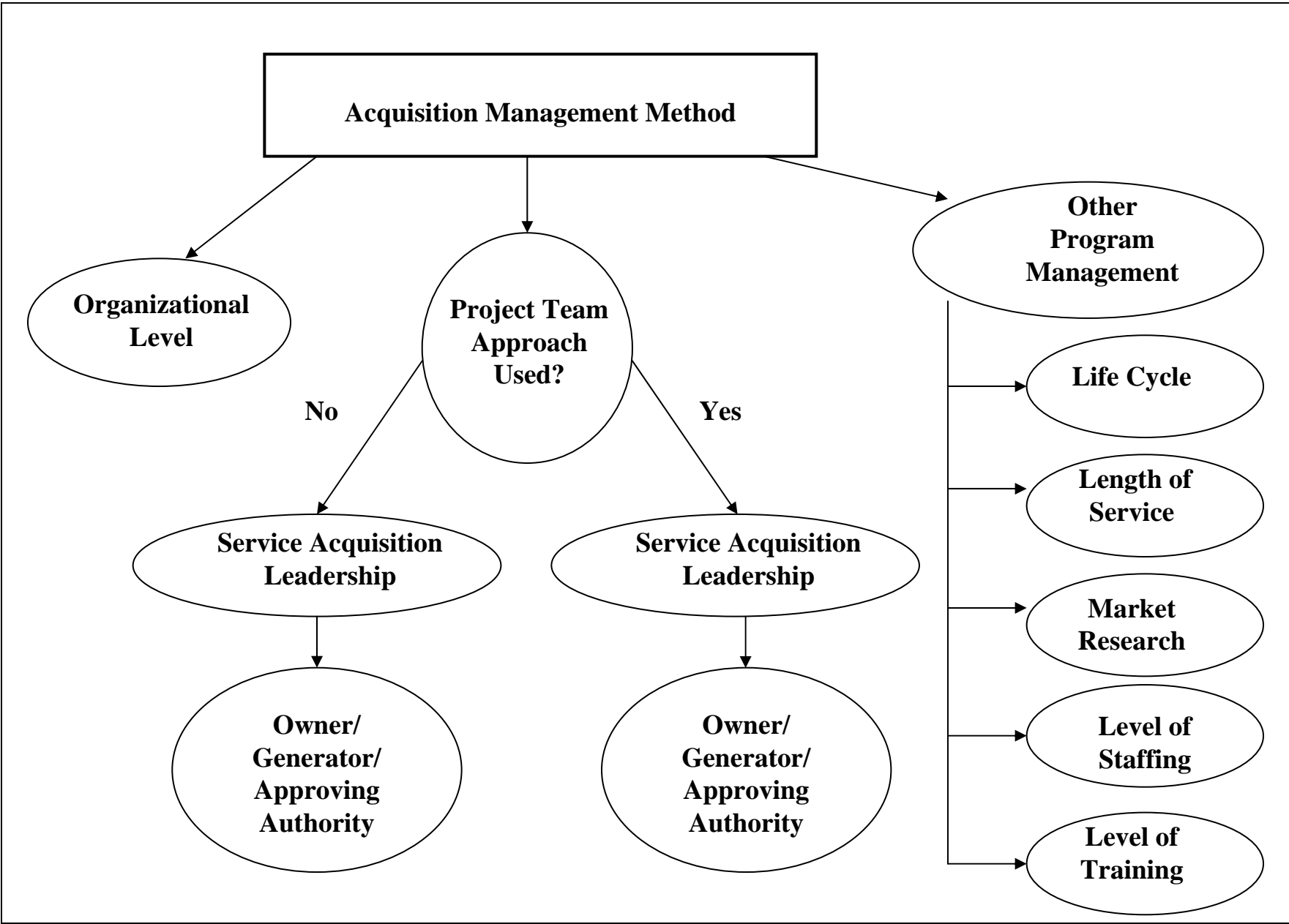
- What type of organization/management structure is used to manage the services acquisition?
- What training is given to contract and project/program management staff?
- Are there any significant differences between the way services are acquired and managed in different DoD departments?

# Service Categories

Service Category	Classification Code	Air Force	Army	Navy
Professional, administrative, and mgmt. support	R	X	X	X
Maintenance and repair of equipment	J	X	X	X
Data processing and telecommunications	D	X	X	X
Medical	Q		X	
Maintenance and repair of real property	Z		X	
Utilities and housekeeping	S		X	X
Transportation and travel	V	X	X	







# Analysis of Survey Results

- A clear distinction can be made concerning the **organizational levels** in which services contracts are managed.
  - Air Force and Army: Majority of services contracts are managed at the installation level.
  - Navy: Majority of services contracts are managed at the regional level.

# Analysis of Survey Results

- The proximity of where the contracts are managed to where the services are actually performed may have an impact on the effectiveness of the contract management process.

## Analysis of Survey Results (continued)

- A slight distinction can be seen in the use of a **project team approach** in managing services acquisitions.
  - The Air Force and Army used a project team approach approximately the same amount.
  - The Navy used a project team approach slightly less than Air Force and Army.
- Best practices in contract management reflect the use of project teams, specifically integrated teams, in the management of service acquisition projects.

# Analysis of Survey Results (continued)

- A distinction can be made in **who leads** the services acquisition effort.
  - Air Force: the contracting officer leads the acquisition effort, regardless of the use of project teams.
  - Army: the contracting officer leads the effort when project teams are used. However, when project teams are not used there is no clear distinction of who leads the effort.
  - Navy: program management personnel lead the effort when project teams are used. However, contracting officers lead the effort when project teams are not used.

## Analysis of Survey Results (continued)

- The contracting officer may be in a precarious situation in leading the acquisition effort and taking on project manager responsibilities.
- Services acquisition personnel are typically not part of an acquisition organization, nor are they members of the acquisition workforce . This may be problematic for the success of the contract management effort.

## Analysis of Survey Results (continued)

- **Requirements management** is typically performed by the project manager in Air Force and Army contracts. However, in Navy contracts, the contracting officer managed the requirement in approximately 33% of the time.
- When contracting officers lead the acquisition effort as well as manage the requirements it may result in the appearance of a conflict of interest in the roles and responsibilities of PM and CO authorities.

## Analysis of Survey Results (continued)

- QAEs provide **contractor surveillance** in most (91%) Air Force contracts. However, in the Navy, QAEs perform surveillance 60% of the time while in the Army it was only about 30%.
- “Do COs have the requisite technical knowledge to conduct proper surveillance”?
- “Should COs perform contractor surveillance functions”?



## Analysis of Survey Results (continued)

- **Project lifecycle** approach was used in approx half of routine services contracts for Air Force, Army and Navy. However, only approx 30% of Air Force contracts and 20% of Army contracts used lifecycle approach for non-routine services. In the Navy, the life cycle approach was not used at all for non-routine services.
- Non-routine services may involve higher-levels of uncertainty and risk. Thus, these services can benefit from the use of a lifecycle approach in managing the services acquisition project.

## Analysis of Survey Results (continued)

- The Air Force, Army and Navy generally agreed that
  - There was an inadequate number of **services acquisition billets**
  - Services acquisition billets were inadequately filled
- Both Air Force and Navy generally agreed that services acquisition personnel were adequately **qualified**, the Army was divided evenly
- Air Force agreed that a proper level of **contractor oversight** was provided while the Army and Navy disagreed

## Analysis of Survey Results (continued)

- Air Force and Army differed significantly from the Navy on the requirements management process
  - Air Force and Army - requirements identification and **SOO/SOW development** performed by the requirements organization
  - Navy - requirements identification and SOO/SOW development are performed by different organizations and may be performed by the CO
- Mixing of requirements management roles and responsibilities may lead to ineffectiveness as well as vulnerabilities for procurement fraud

# Conclusions

- Air Force, Army and Navy all have different approaches to managing services acquisition projects
- The approach used for managing services acquisition projects may have implications on the effectiveness of the contract management process and the success of the acquisition project

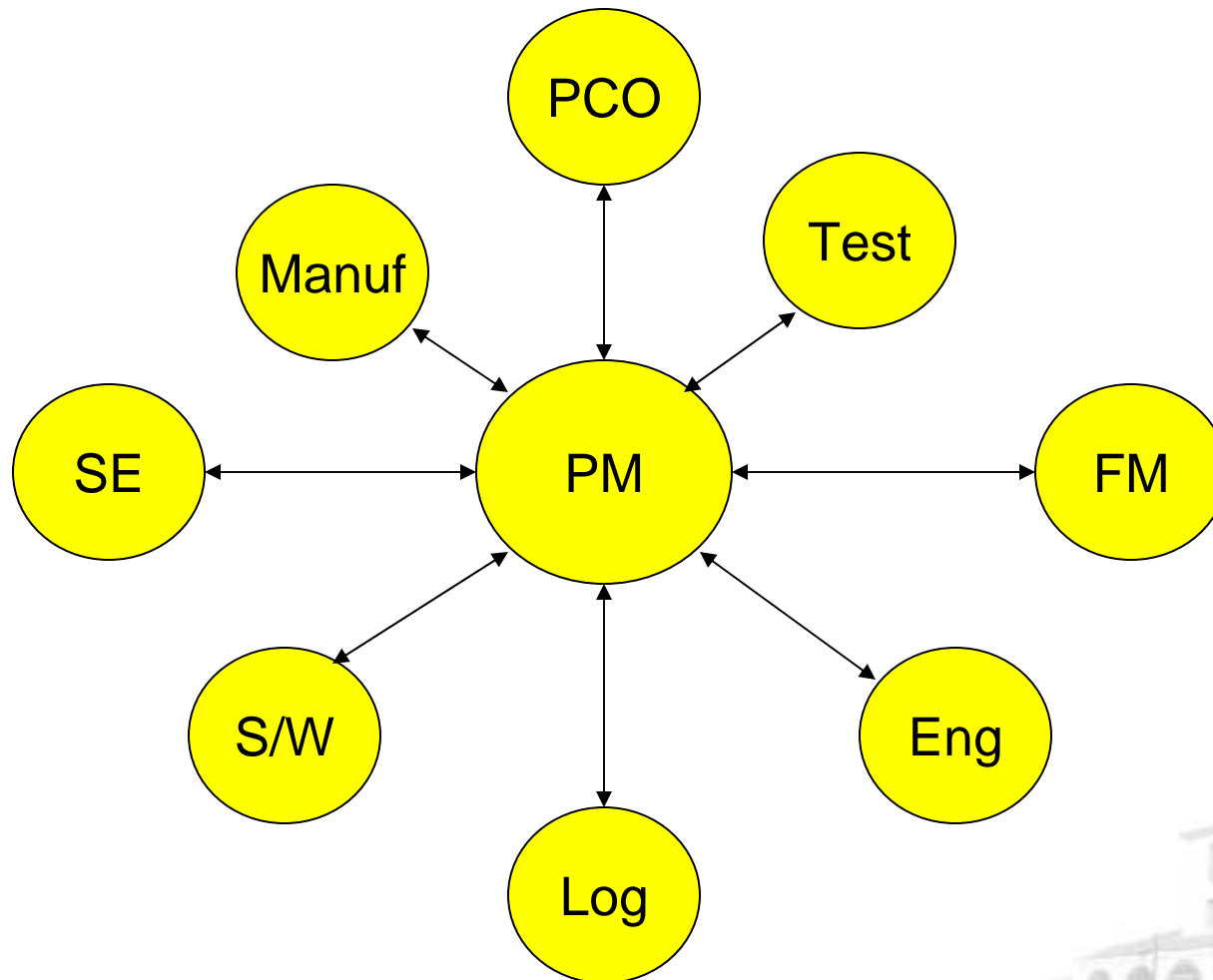
# Back up Slides



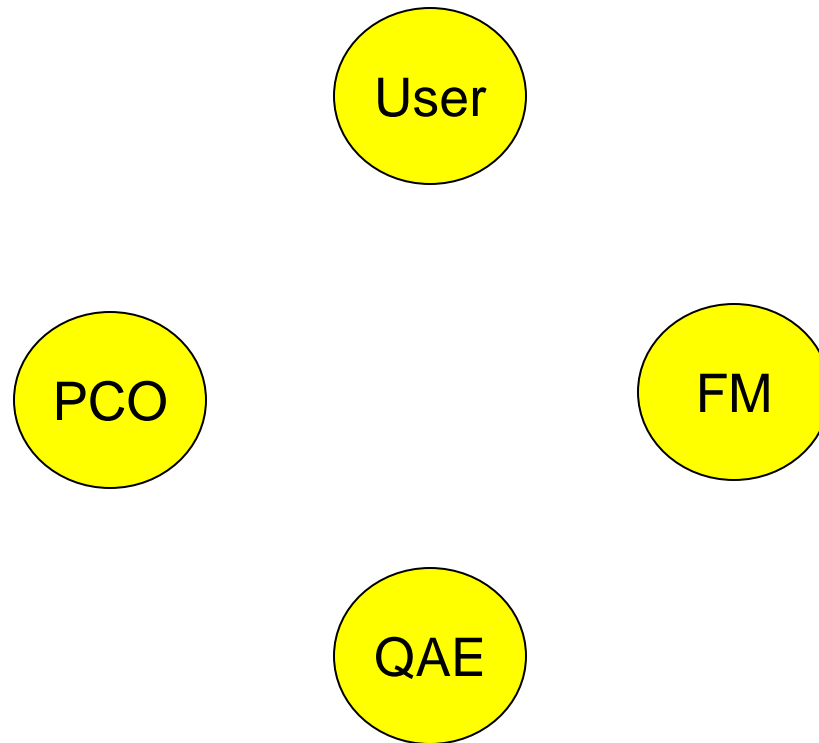
Acquisition Research: Creating Synergy for Informed Change  
3<sup>RD</sup> ANNUAL ACQUISITION RESEARCH SYMPOSIUM

May 17-18, 2006  
Monterey, CA

# Major Systems Acquisition



# Services Acquisition



# Previous Research Findings

- Innovative approaches to management of services acquisition programs
  - Air Education and Training Command (AETC)
    - AETC Program Management Flight
    - AETC Contracting Squadron
  - Air Combat Command (ACC)
    - Acquisition Management and Integration Center
      - Centralized Planning, Control, and Execution
      - Combined program management and contracting organization





# Contract Characteristics

- Air Force, Army and Navy
  - Competitively awarded
  - Fixed-price contracts
  - Typically not using contract incentives, award fees or award terms



# Organizational Levels

- Air Force & Army

- Pre-award activities
- Post award activities

Installation level  
Approx 70%

- Navy

- Pre-award activities
- Post award activities

Regional level  
Approx 60%



# Project Team & Project Managers

- Air Force:
  - Approx 64% use project team approach
  - When a project team is used
    - PCO is the project manager (80%)
    - Other than PCO is project manager (20%)
  - When a project team is not used
    - PCO leads and manages the project effort (73%)



# Project Team & Project Managers

- Army:
  - Approx 62% use project team approach
  - When a project team is used
    - PCO is the project manager (68%)
    - Other than PCO is project manager (32%)
  - When a project team is not used
    - PCO leads and manages the project effort (48%)



# Project Team & Project Manager

- Navy:
  - Approx 51% use a project team approach
  - When a project team is used
    - PCO is the project manager (35%)
    - Other than PCO is project manager (65%)
  - When a project team is not used
    - PCO leads and manages the project effort (100%)



# Requirements Management

- Air Force:
  - When a project team is used
    - The requirement is managed by other than PCO (82%)
  - When a project team is not used
    - The requirement is managed by other than PCO (85%)



# Requirements Management

- Army:
  - When a project team is used
    - The requirement is managed by other than PCO (74%)
  - When a project team is not used
    - The requirement is managed by other than PCO (78%)



# Requirements Management

- Navy:
  - When a project team is used
    - The requirement is managed by other than PCO (41%)
  - When a project team is not used
    - The requirement is managed by other than PCO (67%)





# Contractor Surveillance

- Air Force:
  - Contractor surveillance is performed by a QAE (91%)
- Army:
  - Contractor surveillance is performed by other than PCO (87%)
- Navy:
  - Contractor surveillance is performed by other than PCO (62%)



# Lifecycle Approach

- Air Force:
  - A lifecycle approach is used in managing routine services projects (50%)
  - A lifecycle approach is used in managing non-routine services projects (29%)



# Lifecycle Approach

- Army:
  - A lifecycle approach is used in managing routine services projects (41%)
  - A lifecycle approach is used in managing non-routine services projects (21%)



# Lifecycle Approach

- Navy:
  - A lifecycle approach is used in managing routine services project 50%
  - A lifecycle approach is used in managing non-routine services project 50%



# Acquisition Billets/Contractor Surveillance

- Air Force:
  - Adequate Number of Billets: 35%
  - Billets Adequately Filled: 18%
  - Personnel Adequately Trained: 53%
  - Personnel Adequately Qualified: 65%
  - Proper level of contractor surveillance: 79%



# Acquisition Billets/Contractor Surveillance

- Army:
  - Adequate Number of Billets: 13%
  - Billets Adequately Filled: 16%
  - Personnel Adequately Trained: 39%
  - Personnel Adequately Qualified: 46%
  - Proper level of contractor surveillance: 23%



# Acquisition Billets/Contractor Surveillance

- Navy:
  - Adequate Number of Billets: 25%
  - Billets Adequately Filled: 25%
  - Personnel Adequately Trained: 50%
  - Personnel Adequately Qualified: 62%
  - Proper level of contractor surveillance: 25%



# Development of SOO/SOW

- The SOO/SOW is developed by the requirements owner:
  - Air Force (91%)
  - Army (84%)
  - Navy (2.5%)

