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Considerations for Managing Acquisition Data in the Emerging Acquisition Environment

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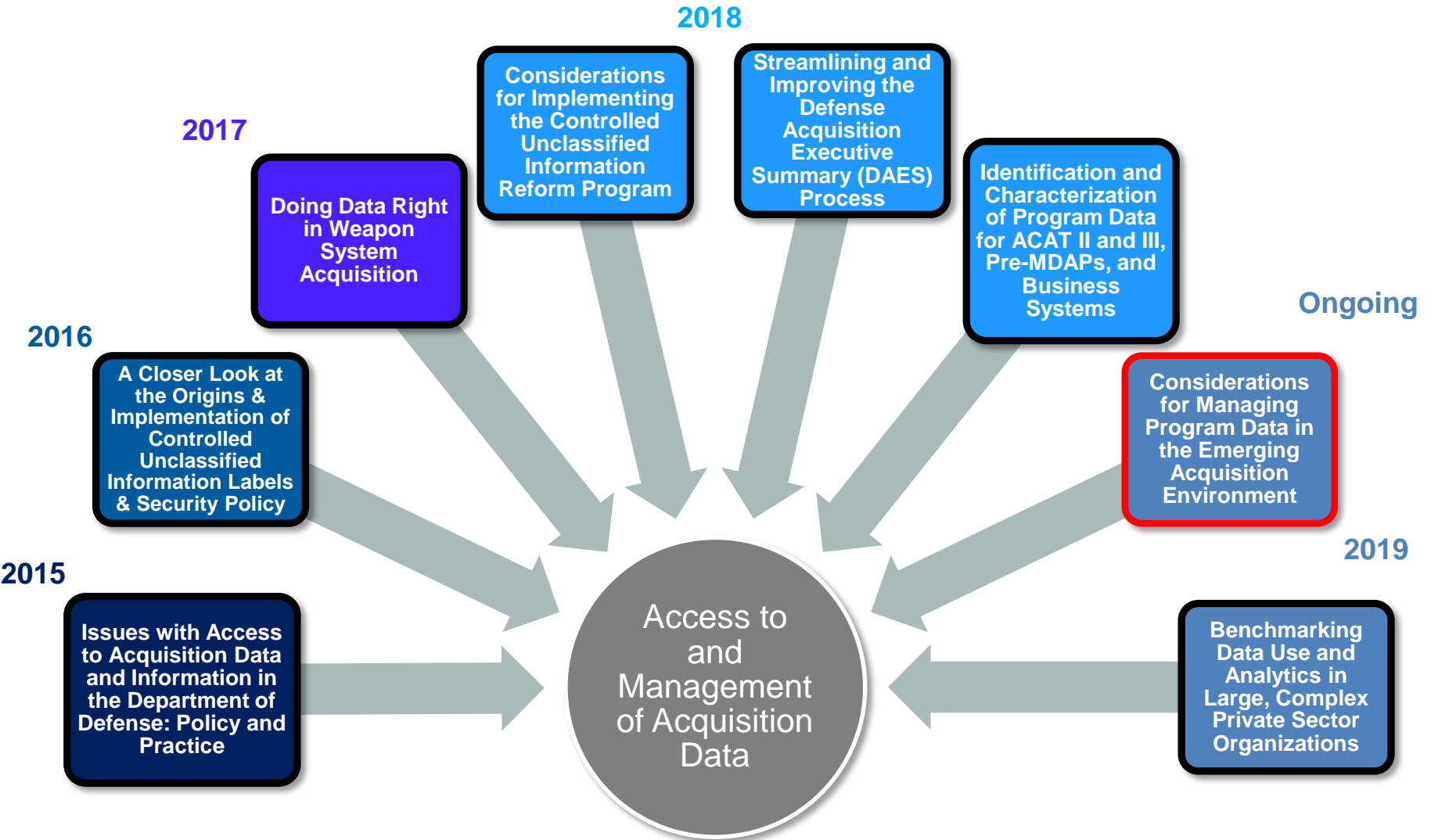
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RAND has analyzed issues with acquisition data management in DoD in multiple studies



Study results can be found in the Defense Acquisition Visibility Environment or at [RAND.org](https://www.rand.org) (for publicly available)

Study objective

- To identify and concisely describe some of the issues and challenges related to managing acquisition program information in the emerging acquisition environment
 - Evaluate the impacts to governance, management, and use of program data and other acquisition information
- Output intended to inform decisions DoD makes as it implements recent statutory changes to authorities, responsibilities, and organizational structure

Research approach consisted of three main steps

1. Identify and describe changes to acquisition roles, responsibilities, and authorities

- NDAA's and accompanying committee reports
- Initial directives and reports from DoD task forces
- GAO, CRS, CBO, and other organizations
- Discussions with select stakeholders

2. Identify a specific set of challenges that may arise from these changes

- Chosen with approval of sponsor
- Informed by prior studies

3. Identify implications for data governance and management

- Draw on published best practice in data management and our understanding of how DoD implements data practices
- Identify how current DoD policies and practices may need to change in order to be consistent with the changes to acquisition roles, responsibilities, and authorities

Several topics were selected

- Data governance and management challenges and opportunities associated with the emerging acquisition environment
- Specific data challenges associated with the implementation of the Middle Tier Acquisition pathway
- Implications of termination of the Selected Acquisition Report (SAR)

We make several assumptions to facilitate analysis

- Implementing changes in acquisition roles, responsibilities, authorities, and organizational structure will necessarily impact the generation, collection, storage, and use of acquisition program data
- Address issue from the perspective of OUSD(A&S)
- Adopt a benefit-cost framework for evaluating data issues, but leave evaluating that tradeoff to future research
 - Benefits represented by the depth and breadth of use cases that can be addressed by the data being collected
 - Data collection has financial costs and potential burdens exist
- Assume OUSD(A&S) will continue to need acquisition program data and other related information

The specific use cases we assume are similar to past, but with differing emphasis

- Statutory and regulatory reporting
- Tracking program cost, schedule, and performance outcomes against an established baseline
- Providing program insight to anticipate, understand, and mitigate the factors affecting adverse cost, schedule, and performance outcomes
- Conducting portfolio analyses, including both traditional (i.e., by Service or weapon system type) and new (i.e., mission-focused kill-chains)
- Understanding the performance of the overall acquisition system in order to improve policy design and implementation
 - Includes any acquisition pathway (i.e., traditional 5000.02, Middle Tier)

Ultimately, acquisition program data requirements are a decision for USD(A&S) that depends on how USD(A&S) intends acquisition program data to be used

Congress made changes to the roles, responsibilities, authorities, and organizational structure of Service and OSD acquisition organizations

- Transferred decision authority to the SAEs for new MDAPs
- Increased Service Chiefs' role in acquisition
- Increased SAE role in oversight
- Eliminated USD(AT&L) and created USD(R&E) and USD(A&S)
- Created CMO with data-related responsibilities
- Created middle tier acquisition pathway (rapid fielding, rapid prototyping)

Changes resulted in an uncertain environment for program data and other acquisition information

Data governance and management challenges affecting acquisition information prior to recent changes

- Complex security policies regulating information systems
- Cultural and technical barriers to accessing and sharing information
- Lack of awareness of the breadth and depth of information available to DoD leaders and staff
 - A rich set of information is available to support acquisition insight, analysis, and decision making
 - Extent to which this information is used remains unknown
- No common data environment exists for acquisition information
- No agreement on data needs and definitions across DoD

Data governance and management challenges resulting from recent statutory changes

- Organizational responsibilities may require new or expanded capabilities
 - Service staff may need renewed focus on program insight/oversight
 - OSD staff focused on portfolio management
- Implementing effective data governance and management across DoD
- Defining data needed enterprise-wide that addresses the range of continuing and emerging use cases
- Coordinating and collaborating across organizations
 - OUSD(A&S) and OUSD(R&E)
 - OSD and Services
- Implementing appropriate data collection and use in support of the Middle Tier

Key questions senior leaders should be asking

- What information does OSD need and why?
- What data does OUSD(A&S) need to execute its statutory responsibilities?
- Is it possible to have decentralized program execution and oversight while maintaining OSD insight on policy effects, institutional performance, and key program status and outcomes?
- How will portfolio performance be monitored and improved in this decentralized structure?
- How can data improve the execution of programs?
- What data capabilities will be lost if some information flows stop?
- What information is no longer needed?
- What new information is needed?
- Can and should acquisition program data be standardized across the DoD enterprise and across different Services and types of programs?
- What are the military departments doing with their information flows as their organizations change?

Data challenges associated with implementing the Middle Tier acquisition pathway

- Middle Tier consists of both rapid prototyping and rapid fielding
- Implementation requires program data to inform both programmatic and policy decisions
 - USD(A&S) interim guidance identified core set of required program data
 - Service guidance emphasizes tailoring
 - Collaborative development of initial data reporting builds on existing data framework and infrastructure
- Challenges (and opportunities) include
 - Identifying use cases and associated core data requirements
 - Standardizing collecting and reporting
 - Ensuing costs of data governance and management do not overburden the process or adversely affect the primary objective of accelerating the fielding of new capabilities

Implications of termination of the Selected Acquisition Report (SAR)

- FY2018 National Defense Authorization Act (NDAA) repealed SAR congressional reporting requirements effective December 31, 2021
- The SAR has been a bedrock of transparency and data on the cost, schedule, and performance of major defense acquisition programs (MDAPs)
 - Used for oversight and analysis at the program, portfolio, and policy levels—both immediate and longitudinally
 - Reflects a common data framework for ACAT I
- Without replacement, SAR termination will eliminate benefits of its use
 - Vehicle for other statutory reporting still in effect (i.e., unit cost reporting)
 - Standardized, consistent set of program data useful for case studies, and comparative, longitudinal, crosscutting, and portfolio analyses
 - Service data element definitions and data collection may diverge over time

Options for addressing data-related challenges

- OSD and Services could collaborate on a strategic management plan for acquisition program data and other acquisition information
- Let decision making drive data requirements
- Capitalize on the existing data governance and management model
 - Policy environment and data management practices
 - Existing IT infrastructure
- Standardize where possible
 - Common data framework for ACAT programs
 - Define a core set of program data and associated definitions and authoritative sources
- Minimize reporting as appropriate for use case
 - E.g., austere reporting for Middle Tier
 - Congressional reporting

