DATA Act Audits

• Focused on completeness, timeliness, quality, and accuracy of agency data

• GAO Findings
  – 56 to 75 percent of newly required budgetary records were fully consistent with agency sources
  – 0 and 1 percent of award records were fully consistent with agency sources

• Majority of submissions were timely

• Inconsistences between IG approaches and guidance

• Recommendations
  – Financial data; DATA Act Broker; Award data
Data Quality Playbook

• Collaborative effort: OMB, Treasury, agencies
• OMB guidance requires DATA Act reporting agencies to implement a data quality plan (DQP)
• Playbook assists SAOs in developing DQPs to achieve reasonable assurance over internal controls and processes that support overall data quality
• Provides practical information and helpful scenarios for agencies
  – Six diverse scenarios: Varying agency size, level of centralization, maturity of internal controls / governance structure, etc.
DATA Act Broker Submissions

- Agencies submit data on quarterly basis at top-tier (i.e. Department) level to DATA Act Broker
- Broker validates data, reports errors that must be corrected before certification
- Resources / assistance for agencies
  - File generation
  - Error reports
  - Resources / help page
  - Service Desk
  - Submission dashboard
  - Ongoing work on agency data dashboard
Mission and Data Quality

- Advana is a next-generation, commercial grade platform harnessing advanced analytics to meet critical Department of Defense national security, mission and business challenges. We believe advanced analytics offers the promise of driving better and faster decision-making at all levels across the Defense Enterprise.

- In order to enable our customers to make data driven decisions and produce cost savings, we need a robust data quality framework to ensure that data is accessible, discoverable, and understandable:

  **Accessible**
  
  Data in Advana is available to users who possess the appropriate permissions. The Advana security model is enforced across all applications. Users can request additional access as needed with the necessary approvals.

  **Discoverable**
  
  Data sets are easily searchable using natural language across a number of facets, business domains, time periods, and relevancy. Discoverability is improved through the use of a common metadata strategy that can be extended to the enterprise.

  **Understandable**
  
  All data sets available in Advana have an associated Data Dictionary to define standard terms, transformation rules, data lineage, and context.

DoD Data Quality Plan is at: https://guidanceweb.ousdc.osd.mil/documents/current/ODCFO/Fiar
Data Quality Framework

DoD Data Quality Plan is at: https://guidanceweb.ousdc.osd.mil/documents/current/ODCFO/Fiar
Data Quality Dimensions

- Data quality dimensions describe a feature of data that can be measured or assessed against defined standards in order to determine the quality of data. We have defined six data quality dimensions:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
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<tbody>
<tr>
<td>Completeness</td>
<td>The extent to which enough of the required data elements are populated; analyze for missing rows of data to ensure full dataset is provided to ADVANA platform</td>
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<tr>
<td>Conformity</td>
<td>Data elements adhere to the defined formats and standards</td>
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<tr>
<td>Consistency</td>
<td>Data across systems capture the same information and analyze duplicates</td>
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<tr>
<td>Accuracy</td>
<td>Data accurately reflects business requirements, data definitions, and business rules</td>
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<tr>
<td>Integrity</td>
<td>Verify relationships between data sources to ensure data elements can be linked and enriched</td>
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<tr>
<td>Timeliness</td>
<td>New data arrives when required and is extracted, transformed, loaded, and classified within similar time frames</td>
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</tbody>
</table>

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