

# THE UNIVERSITY OF ALABAMA<sup>®</sup>

---

## Data Quality Standards and Guidelines

### Document History

Version	Change Date	Changes
1.0	June 6, 2023	Document Creation
1.1	July 24, 2023	Changed “campuses” to “campus” in Data Quality Standards section Added acronym for Data Governance (DG)
1.2	July 26, 2023	Removed word “-wide” from “university-wide systems” in section III Scope as the data quality standards documented here will be applicable to all institutional data that is used for internal or external reporting, regardless of whether the system in which data resides is used across the university or not.
1.3	August 25, 2023	Replaced all instances of “Data Trustee” with “Data Executor”
1.4	August 29, 2023	<ul style="list-style-type: none"><li>• Added link to Data Governance Playbook throughout document where appropriate.</li><li>• Removed “University of Alabama Data Governance Executive Steering Committee Chair” as a document approver as the Executive Sponsor role is already listed as an approver</li></ul>

## Contents

I.	Data Quality Standards and Guidelines.....	3
1.	Purpose.....	3
2.	Data Quality Standards.....	3
3.	Roles and Responsibilities.....	4
4.	Data Quality Processes and Tools .....	5
5.	Data Quality Minimum Required Metadata .....	5
II.	Scope.....	6
III.	Implementation .....	6

# **I. Data Quality Standards and Guidelines**

## **1. Purpose**

High quality data is critical to make the University of Alabama's institutional data an asset and enable data-informed decision-making and planning. The University of Alabama needs timely, accurate, and reliable data to enable compliance with internal and external requirements and build trust among data users.

It is the responsibility of every Data Executor and Steward to monitor all data within their purview to ensure it is accurate, accessible, and complete as far as is reasonably practical. It is the responsibility of all University of Alabama data consumers to acknowledge and abide by defined data standards.

It is the policy of the University of Alabama to apply data quality standards to all critical data elements that the University of Alabama generates, manages, and publishes as determined by the Data Governance (DG) Council.

These standards and guidelines aim to provide an overall framework to enable high-quality data for all University of Alabama data consumers and required external bodies.

## **2. Data Quality Standards**

Producing robust data is an integral part of the University of Alabama's operational, analytic, and governance initiatives. The data which we report and make decisions on should reflect the following eight characteristics of good quality data:

- **Conformity** – Is the data in a single, standardized format?
  - Ex. Conformed data types, field sizes, data formats, etc.
- **Consistency** – Is the data defined the same way across the organization? Is the data free from contradiction and variability?
  - Ex. No duplicate or contradicting business term names or calculation names across the university or departments
- **Accuracy** – Does the data reflect the real-world at the current time?
  - Ex. Valid zip code but incorrect value, misspelled product names
- **Uniqueness** – Is the same data stored only once (e.g., no duplicate data)?
  - Ex. Are there multiple product records for a single product (e.g., degree), multiple vendor records for a single company / contractor, etc.?
  - Ex. Are students stored and maintained in multiple systems?
- **Referential** – Are the relationships between data assets clear?

- Accessibility – Can the data be used by those who need it?
- Timeliness – Is the data captured and made available timely and consistently?
  - Are consuming systems receiving updated information within agreed service level agreements (SLAs)?
- Completeness – Is there missing or incomplete data? Data should be comprehensive and concise as required to meet business needs.
  - Ex. Number of Missing Student Detail, Missing Email Addresses, Missing Supplier Contact Name, etc.



### 3. Roles and Responsibilities

In addition to the detailed roles and responsibilities outlined in the DG Playbook ([link to document](#)), Data Governance Lead, Data Executors, Data Stewards, Data Custodians and Data Users are responsible for the following:

- Data Governance Council and Data Governance Lead:
  - The Data Governance Council and Data Governance Lead are responsible for the periodic review and audit of data quality standards within the data governance program's data domains.

- Data Executors
  - Review and approve data standards drafted by Data Steward(s)
  - Monitor data stewards within data domain to ensure all critical data elements have defined data standards / rules to monitor data quality.
- Data Stewards
  - Define data standards / rules for all critical data elements within data domain.
  - Apply data standards / rules to critical data elements to actively monitor data quality.
- Data Custodians
  - Monitor data quality for all critical data elements within data domain.
  - Resolve data quality issues in partnership with data stewards.
  - Follow change management practices during maintenance of data within a data domain.
  - Ensure that recipients of data extracts receive business metadata (details regarding the extracts) corresponding to the extracted data.
- All Data Consumers
  - Abide by and leverage the data standards defined by the University of Alabama Data Executors and Stewards to properly use University of Alabama institutional data in reporting.

#### **4. Data Quality Processes and Tools**

The University of Alabama Data Governance Council defines processes that identify the roles, responsibilities, and actions needed to manage the data quality of University of Alabama data.

All data quality metrics and measures should leverage the data governance tools to document the metrics and measures and automatically measure compliance when possible.

For the latest guidance on what tool(s) to leverage for data quality, please reference the DG Playbook ([link to document](#)).

#### **5. Data Quality Minimum Required Metadata**

For the latest requirements on what data quality standards, templates, and example metrics a Data Steward should capture, maintain, and monitor, reference the DG Playbook ([link to document](#)).

## II. Scope

These standards cover all institutional management data that is held in university systems, and any data that is collected from those systems and used for internal or external reporting.

The University of Alabama expects that all employees performing work on behalf of the University of Alabama regardless of geographic location, whether on or off networks, shall adhere to these standards.

Out of Scope Example: These standards exclude data that is owned by the University of Alabama third-party providers.

## III. Implementation

These standards will be communicated to all relevant Data Executors, Data Stewards, staff, and be displayed on the University of Alabama Data Governance website. It is the responsibility of Data Executors to make all staff responsible for handling data aware of these standards and to implement them to support their work.

All data domains will be subject to periodic audit and review to ensure that all identified critical data elements are in compliance with these standards.

## Document Approval

### APPROVERS:

Role	Name	Signature	Date
Executive Sponsor (1)			
Executive Sponsor (2)			