

# IQ-SMART

## THE UNIVERSITY OF REDLANDS KNOWLEDGE MANAGEMENT GUIDE

A COLLABORATIVE PROJECT BY KNOWLEDGE PROFESSIONALS ACROSS CAMPUS

**I**nformation Governance: Definition and Stewardship

**Q**uality: Quality Control and Improvement

**S**ecurity: Protection of Data from Loss and Misuse

**M**etadata: Documentation of Data and Processes

**A**ccess: Tools and Support Communities

**R**eduction: Analytics that Reduce Noise and Generate Insights

**T**ranslation: User-Friendly Language and Visualization

JUNE 14, 2016

## EXECUTIVE SUMMARY

The University of Redlands Knowledge Management Guide serves dual purposes: a) a repository of policies and guidelines for data-information-knowledge professionals whose mission is to provide high quality information support and actionable insights to decision makers; b) a reference for decision makers using trusted information and valid interpretation to achieve operational efficiency and institutional success.

To systematically address how data, information, and knowledge should be collected, generated, stored, documented, accessed, and shared to support operational, tactic, and strategic decisions, this Guide is comprised of seven main sections that can be summarized by the acronym IQ SMART.

1. **I**NFORMATION GOVERNANCE
2. **Q**UALITY
3. **S**ECURITY
4. **M**ETADATA
5. **A**CCESS
6. **R**EDUCTION
7. **T**RANSLATION

Section one starts with the definition, classification, ownership, and stewardship of institutional data so that scope and priorities are clarified. Section two addresses information quality control and improvement, including quality standards and processes related to data entry, validation, reconciliation, and review. Sections three to seven focus on five specific topics: Security--protection of data from physical damage and unauthorized use; Metadata--documentation of data and processes; Access--tools and knowledge base that facilitate efficient and timely access to data systems; Reduction--analytical processes that reduce information overload and extract insights; Translation--translating technical jargons to user-friendly language and visualization.

## INTRODUCTION

### WHAT IS KNOWLEDGE MANAGEMENT?

For many organizations, *data management* is a long-established function usually performed by information technology professionals. However, as the *Hierarchy of Data, Information, Knowledge, And Wisdom* (see Table 1 below) suggests, data are the raw ingredients. An organization must combine data with definitions, people, and actions in order to realize the true values of data through evidence-supported planning and decision-making. Ensuring efficient, consistent, and valid transformation of raw data into actionable knowledge requires a *knowledge management* function that is built upon the solid foundation of data management.

<b>Data</b>	Facts	+	Opinions
<b>Information</b>	Data	+	Definitions
<b>Knowledge</b>	Information	+	People
<b>Wisdom</b>	Knowledge	+	Actions

Table 1: The Hierarchy of Data, Information, Knowledge, and Wisdom

**Data:** Symbols or other representations of distinct entities in the objective or conceptual world.

**Information:** Data in context that enables understanding.

**Knowledge:** Information as understood by people who have the experience and acumen to evaluate the significance of and add value to information.

**Wisdom:** Knowledge applied to actions that lead to the accomplishment of an organization's mission.

**Knowledge Management:** The process of capturing, developing, sharing, and effectively using organizational knowledge in order to achieve organizational objectives.

### WHY DO WE NEED A KNOWLEDGE MANAGEMENT GUIDE?

There is no centralized knowledge management function for the University. Knowledge management occurs throughout the Institution, embedded in unit-based business functions that provide support for decision making. The distributed knowledge management model enables our knowledge professionals to specialize as subject-matter experts with in-depth knowledge about function-specific priorities and information needs in support of our decision makers.

Our distributed knowledge management model can produce “multiple versions of truth” that complicate institutional-wide planning and decision making. We face a similar challenge with inconsistency of data in publications delivered to external stakeholders such as students, parents, and regulatory bodies.

Our solution to the challenges of the distributed knowledge management model is this guide, as developed and maintained by the University’s knowledge professionals. “Multiple versions of truth” may coexist with a “single source of definitions” so that our Institution may obtain the consistency and synergy of the centralized model while reaping the subject-matter specialization benefits of the distributed model.

## INFORMATION GOVERNANCE

### WHAT IS INFORMATION GOVERNANCE?

As defined earlier, data are symbols in various formats to record facts and opinions. They are raw ingredients that can only be understood and usable when combined with definitions and transformed into information. Conversely, the same information may be represented by totally different data or symbols. For example, students' grades can be letters, integers, or decimals; home locations can be texts or longitudes and latitudes. Without *definitions*, data are not usable; with definitions but lacking standardization, data are usable but the process will be time consuming. The best way to make data more readily usable is to standardize them, and *standardization* requires *governance*.

Information governance is the organizational basis for efficiently and objectively transforming data to information. The goal of information governance is to achieve *trusted information* as the foundation for ensuring that decision makers know what the information means, how it's managed, and that it is represented appropriately in our computing systems. Trust implies confidence that evidence-based decisions are more reliable and more likely to drive organizational success.

### HOW DO WE IMPLEMENT INFORMATION GOVERNANCE?

Information governance is about HOW the business of data and information stewardship is performed. However, far too often information governance is seen as an ends rather than a means - a WHAT rather than a HOW.

While we should aim for holistic data quality, information that is more crucial for organizational success should be more closely governed to achieve better quality and trust. To establish governance priority and maintain accountability, information must be classified by relevance and assigned to designated stewards. Governance is an ongoing process that should be evaluated to ensure progress.

**Information Governance:**  
Using organizational strategy to apply objectivity and efficiencies to the processes necessary for the management of information in the achievement of organizational success.

### INFORMATION DOMAINS AND INSTITUTIONAL FUNCTIONS

Information Domains are information grouped together to represent similar entities or attributes of entities. For example, customer, product catalog, customer portfolio, finance, and employee are typical information domains for business. Below is a list of information domains and their corresponding institutional functions at the University of Redlands.

Information Domain	Institutional Functions
Academic Records, Curriculum (Courses, Degrees, Programs), Faculty Information	Provost (Academic and Faculty Information)
Prospective Students and Student Financial Information	Enrollment Management(Admissions, Student Financial Services)
Student Services and Support	Student Life and Housing
Sponsors (Alumni, Parents, Foundations)	Advancement (Alumni, Development, Marketing)
Finance and Employee Information	Finance and Administration (Business and Finance, Human Resources)

## OWNERSHIP ASSIGNMENT

### Executive Oversight

The University of Redlands is considered the information owner of all university institutional data as an institutional asset. The President’s Cabinet and their designated stewards in relation to their functional areas are responsible for the university-wide data administration and policy.

Cabinet Member	Area of Responsibility
Provost	Academic, Faculty, and Student Information
Vice President, Finance and Administration	Business and Finance; Human Resources
Vice President, Enrollment	Applicant, Admission, and Student Financial Information
Vice President, Advancement	Community and Alumni Relations, Development, Advancement Services, and University Archives
Dean of Student Affairs	Student Life and Housing

## STEWARDSHIP ASSIGNMENT

### Data Stewards

University officials who have been designated by their respective Cabinet member with planning and policy-level responsibilities for data and information are identified as the data stewards. The Data Stewards, as a group, are responsible for recommending policies, procedures, and guidelines for university data and information management, and they have authority to make managerial decisions about data and information in compliance with Cabinet-approved policy. Data Stewards are generally responsible for the collection, quality, administration, maintenance, processing, and dissemination of data and information. Some data stewards, along with ITS, have specific management responsibilities for defined elements of institutional data, which may include overseeing security and appropriate access. Some data stewards may have responsibility for authorizing the use of specific data and information, and for monitoring this use to verify appropriate access. For some specific duties, data stewards may delegate responsibility to data managers in their respective functional areas. (Refer to Appendix A and Appendix B for proposed recommendations and responsibilities of proposed Data Steward Advisory Group).

Domain	Function	Steward	Designee
<b>Provost</b>	Academic, Curricular and Student Information	Registrar	
	Faculty Information	Registrar	
<b>Vice President, Finance and Administration</b>	Business and Finance	Controller	
	Human Resources	Director of Human Resources	
<b>Vice President, Enrollment Management</b>	Admissions	Dean of Admissions & Student Financial Services for the College of Arts & Sciences	Director of College of Arts & Sciences Admissions
	Student Financial Services	Dean of Admissions & Student Financial Services for the College of Arts & Sciences	Director of Student Financial Services
	Enrollment Management for the Graduate and Professional Programs	Associate Vice President, Graduate & Professional Enrollment	Director of Systems & Operations, Graduate & Professional Enrollment
<b>Vice President, Advancement</b>	Community & Alumni Relations	Director of Advancement Services	
	Development	Director of Advancement Services	
	Advancement Services	Director of Advancement Services	
	University Archives	Director of Advancement Services	
<b>Dean of Student Affairs</b>	Student Life and Housing	Director of Resident Life and Housing	Student Life Technology Manager

### Data Managers

Data managers and their staff are officials who have operational-level responsibility for data and information management activities related to the collection and maintenance of data, along with any other duties that may be approved by the Data Stewards. They authorize requests for, and the use of, data and information for data users within their functional unit, monitoring this use to verify appropriate access.

Examples of Data Managers include the Director of Student Financial Services, and the Director of Admissions for the College of Arts and Sciences.

### System Administrators

ITS is the System Administrator for the University of Redlands. They are responsible for applying formal policies, standards, guidelines and recommended practices to the management of computer resources.

They are responsible with the data stewards and in certain cases the data managers to provide accessible, meaningful, and timely electronic institutional data for university use. They share the responsibility with the stewards for data compatibility, accessibility, and interfaces among institutional data elements.

## Data Users

Individuals who need and use university data as part of their assigned duties or in fulfillment of their role in the university community.

## CLASSIFICATIONS

### DATA CLASSIFICATION

As part of the data definition process, data stewards will assign each data element and each data view of institutional data to one of four security-related classifications:

- **Public:** Few restrictions apply; public data generally may be released to the public upon request.  
*Note:* Data classified as "Public" are freely available within the university but are not available to the general public. Proper access controls (i.e., permissions) must be set to prevent inappropriate access. If you receive a request for data classified as "Public", contact the appropriate data steward for advice.
- **Internal:** Anyone employed by the University of Redlands on a part-time or full-time basis, or working under contract for University of Redlands, may access these data elements for the purpose of conducting university business (e.g., ID number, prior name, and part-time or full-time employment status).
- **Restricted:** Due to legal, ethical, or other constraints, this information may not be accessed without specific authorization, or in some cases only selective access may be granted (e.g., date of birth, home phone number, marital status, and military status).
- **Critical:** Inappropriate handling of this information may result in criminal or civil penalties, identity theft, personal financial loss, invasion of privacy, or unauthorized access by an individual or many individuals (e.g., student loan information, Social Security number, driver's license number, passport or Visa number, Credit Card Information and state ID card number)

### RELEVANCE CLASSIFICATION

In addition to security classifications, a relevance classification is useful in setting priorities so that resources can be allocated towards the most relevant information and thus to maximize the beneficial impacts of high quality information. Questions used to assess the relevance level include:

1. If the information was incorrect, would it impact our customer or consumer value proposition?

2. If the information was incorrect, how many of the standard business functions would be impacted?
3. If the information was incorrect, would it impact the revenue stream or financial reporting?
4. If the information was incorrect, would it impact the use or function of products provided to our customers or consumers?
5. If the information was incorrect, would there be regulatory, legal or privacy impacts?

RC LEVELS	DEFINITION	Q1	Q2	Q3	Q4	Q5
<b>Directed</b>	Information that is of general interest to a particular business function	No	0-1	No	No	No
<b>Protected</b>	Information that is of general interest to the organization and its success	*YI	2+	YI		
<b>Controlled</b>	Information that quantifies organizational value or has direct financial or regulatory impacts	*YD		YD	Yes	Yes

*\*YI: Yes, indirect impact, YD: Yes, direct impact*

## QUALITY

High quality information does not mean perfect information. A balance should be achieved between adequate information quality and reasonable information cost. Information quality can be defined by these factors:

- Accuracy
- Completeness
- Consistency
- Currency
- Reasonableness
- Timeliness

In other words, high quality information is

- The right information
- With the right completeness
- In the right context
- With the right accuracy
- In the right format
- At the right time
- At the right place
- For the right purpose



The data stewards are ultimately responsible for the accuracy, validity, completeness, and timeliness of the data. The accuracy of any element can be questioned by any authorized data user. The data user has the responsibility to help correct the problem by supplying as much detailed information as possible to best understand, diagnosis, and resolve any problems. Applications that capture and update institutional data must include edit and validation checks to assure the accuracy and integrity of the data. The data steward is responsible for responding to any questions about the accuracy and integrity of the data and for correcting inconsistencies.

## SECURITY

Data security at the University of Redlands is managed by the department of Information Technology Services (ITS) under the supervision of the Executive Director of ITS. Data security policies, procedures and training are designed to minimize the risk of a data breach, and are intended to provide guidance to internal and external data users regarding the appropriate access, handling, and security of all university data assets.

Current policies regarding data security include:

- [Responsible Use of Information Technology](#)
- [Email Policy](#)
- [Password Policy](#)
- [Computer Backup Policy](#)
- [Privacy Policy](#)
- [Remote Access and VPN Policy](#)
- [Wireless Policy](#)

Current forms that may include policy statements may be accessed via these hyperlinks:

- [Request Email Account](#)
- [Request Guest Wi-Fi Access](#)
- [Remote and VPN Access](#)
- [Cell Phone Request](#)
- [Vendor Account Request](#)

## METADATA

Metadata is data about data. High quality metadata is the foundation of high quality information. Further development of this Knowledge Management guide will include metadata sections pertaining to: Colleague data structure as implemented at U of R

- BO universes as implemented at U of R
- ETL procedures for BO universes
- Data Warehouse Lexicon (Advancement, Student Financial Services, Business and Finance)
- ETL procedures for historical data warehouse or data marts (e.g., Census)

- Inventory of surveys administered by UR staff (in house) or contractors (outsourced) (*YX is working on this*)
- Inventory of recurring reports for internal and external audiences
- IPEDS Glossary
- University of Redlands institutional glossary
- Common Data Set
- Resource 25 Events Database
- TMI Facilities Management Database
- ADP Human Resources Database
- Library System Database

## ACCESS

Institutional and Administrative data is information that supports the mission of the University of Redlands through its operations. This value of this vital data resource is increased through widespread and appropriate use. Access to data should be as broad as possible in a manner which is consistent with Federal and State law and regulations, Institutional policy, and the role of the user. Administrative data is proprietary and may only be used for University related business. Confidentiality and privacy policies must be observed at all times.

### Types of Access

**Query/Read Access.** Allows the end user the ability to retrieve, view, and analyze institutional data. While users with read access may be able to download data, any alteration of official data immediately disqualifies such data as being represented or used as official university data. Our best practice recommendation is that downloaded data should not be altered. Where alteration might be required to improve data accuracy, such edits should be referred to the appropriate data steward.

**Maintenance/Write Access.** Allows the user to both query and update data. This includes inputting additional data, modifying current data, or in necessary circumstances, deleting data. Users with this access are also able to change the underlying query for datasets as well as modify the tables in which the data is stored. This access will only be given to administrators and users who have an authorized need to make changes to data as part of their key job duties. Access to data deemed confidential will be given only to those in the department which are responsible for maintaining or overseeing maintenance of this data.

## TOOLS FOR DATA ACCESS

**Colleague** by Ellucian is our Enterprise Resource Planning (ERP) system, and we have the **Student**, **Finance** and **Advancement** modules. There are three primary tools to extract data from these modules: **Business Objects**, **Crystal Reports**, and **SQL Server Management Studio**.

**Business Objects** by SAP is the reporting tool used by most non-ITS employees at the university. Business Objects (BO) is a suite of front-end applications that allow users to view, sort and analyze

business intelligence data. There are two primary levels of users of BO at Redlands. One level are those staff who can create and program a report from scratch utilizing the tool, then save the report so that others can run the report. The other level consists of those who are able to run the reports, but are not able to create reports themselves. The data that is extracted using the BO tool are typically exported into Excel for further manipulation, or can be scheduled and emailed to a specified list of recipients.

**Crystal Reports**, also owned by SAP, is a reporting tool used by fewer staff, but which offers more ability to create nicely formatted, visually appealing reports, such as financial reports for the University Board.

**SQL Server Management Studio** is the tool used by ITS staff to extract data from our ERP system using the SQL programming language. Data extracted using this method is often exported to Excel and then emailed to the staff members who have requested the data report.

**Tableau** is a Data Visualization and Reporting Tool. Access to Tableau is currently limited to two desktop licenses and 10 server licenses. Visualizations may be shared via the web and through the My Redlands Portal.

## TOOLS FOR DATA SHARING

Data files and reports can be stored and shared via **Office365** and **OneDrive**, which are now available to all University staff. **SharePoint** folders can also be set up to share documents with a specified list of recipients. Employees are encouraged not to share files via email, as this is not a secure method for distribution. Instead, one of the methods mentioned above should be used, or at a minimum, files sent via email should be password-protected.

## CURRENT COLLABORATIVE GROUPS

**Data Stewardship Advisory Group (DSAG)**. Principles, requests, policy recommendations.

**CORE Data Working Group (CORE Dawg, a working group within DSAG)**. Sets Classifications of CORE Data (See Appendix B for proposal to designate this as a subgroup of Data Stewardship Advisory Group).

**Administrative Systems Users Group (ASUG)**. Information Sharing.

**Reporting Support Working Group (RSG)**. Report Capacity Building, Data Universes.

## REDUCTION

### DECISION MAKING AND INFORMATION SUPPORT

Decision making is the process of observing and understanding two or more different alternatives and choosing the one that is expected to provide certain benefits or experiences. It is difficult to make a good decision if the information is unavailable, if the information is faulty, or if there is an information overload. Since the amount of information that can be conceived and processed by the human mind is

limited, everyone needs a system where all of the choices and facts are contained in a clear and easily accessible manner. Evaluating information can be a difficult chore. However, it is nearly impossible to make solid decisions based solely on someone else's evaluation. Data modeling that reduces uncertainty to a quantifiable level can make evaluation more objective and manageable.

## HOW TO REDUCE NOISE

Use business relevance classification to group information in terms of their relevance to the organization and its various business functions.

## HOW TO REDUCE UNCERTAINTY

- Probability models
- Margin of error and level of significance
- Balance between information cost and level of uncertainty

## TRANSLATION

**Visualizations.** A *visualization* is an interface (typically on the web) for users that organizes and presents information in a way that is easy to read and interpret. Dashboards are meant to provide visibility to information most important to the Institution - performance key indicators (KPIs) - through simple visual graphics such as gauges, charts and tables within a web browser. The information is intended to be simple to monitor at a glance and, where appropriate, actionable. Ultimately, dashboards are created to provide a unique and powerful means to present information about any range of topics. In many respects, a reporting dashboard can be likened to a dashboard in an automobile. It provides an 'at-a-glance view' of the current operational state of the vehicle.

## POLICY RECOMMENDATIONS

These are policies recommended to be updated or developed:

- Mobile Device Policy
- Network Security Policy
- Incident Response Policy
- Outsourcing Policy
- Network Access Policy
- Third Party Connection Policy
- Encryption Policy
- Data Classification Policy
- Retention Policy
- Physical Security Policy
- Colleague ERP Access Policy
- Business Objects Access and Security Policy

- “Tableau Public” Publication Policy
- Web Reports Policy
- University Portal Access Policy
- University Web Content Policy
- Fletcher Jones Guest Access Policy and Service
- Software Acquisition Purchase Policy

## CONCLUSION

As stated previously, the IQSMART document is intended to serve two purposes. The first purpose is to serve as a repository of policies and guidelines. As part our review for information governance, we have:

1. Developed a proposed governance structure related to data policy and management;
2. Identified areas where policies require further review and/or development; and
3. Identified support resources and collaborative groups for technical staff/administrators.

The second purpose of this document is to provide a reference that aids decision makers in understanding how information is generated and defined. We have:

1. Diagramed a process of information retrieval from data storage to extraction, providing an enterprise level view of the lifecycle of how we transform our data into actionable information.
2. Identified a need for an institutional glossary of key metrics as it relates to internal and external reports and measurements. The *Reporting Support Working Group* is tasked with implementing this project at the enterprise level.
3. Proposed data security classifications for decision makers to have a better understanding of data security practices.

This is a living document and is subject to further development and revision.

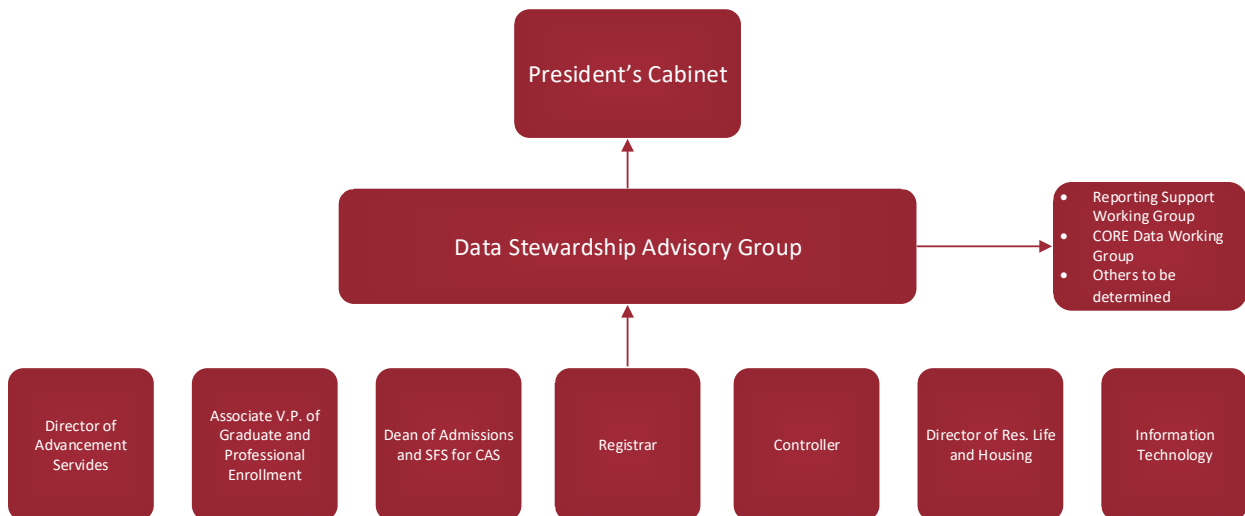
## APPENDICES

### APPENDIX A. RECOMMENDATIONS

1. Implement proposed Information Governance Model (See Appendix B) – APPROVED 9/29/2015.
2. Restructure the ARG Group into the Data Stewardship Advisory Group as described in Appendix C. – COMPLETED 9/29/2015
3. Designate the CORE Data Working Group as a sub-group of the Data Stewardship Advisory Group – COMPLETED 9/29/2015
4. Standardize Colleague and Business Objects access based on **position** rather than individuals for easier onboarding. – IN PROGRESS 4/5/2016
5. Further develop the Data Lexicon repository which currently includes Advancement and Student Financial Services to include GL, Student and Faculty related data – IN PROGRESS 4/5/2016
6. Develop an institutional glossary of key metrics as a guide for functional data users to include data and relevance classifications.

### APPENDIX B. INFORMATION GOVERNANCE MODEL

#### Proposed Information Governance Model



## APPENDIX C. DATA STEWARDSHIP ADVISORY GROUP

### I. **Data Stewardship Advisory Group** [Administrative Reporting Group (ARG) /Ellucian CORE Data Working Group (CORE D.A.W.G.)]

#### A. **Membership of the Data Stewardship Advisory Group**

The Data Stewardship Advisory Group (ARG/CORE D.A.W.G.) shall be comprised of one (1) voting member from each of the following areas represented in the President's Cabinet including

- Director of Student Financial Services
- Registrar
- College Admissions
- Graduate & Professional Enrollment Operations
- Director of Advancement Services
- Information Technology Services
- Student Life
- Institutional Research
- Business and Finance

These are the University Officials who have been designated by their correlating President's Cabinet member with planning and policy-level responsibilities for data in their domain of influence.

- Meetings shall not be limited to voting members. Meetings are open to all interested parties.

#### B. **The Chair of the Data Stewardship Advisory Group**

- The Data Stewardship Advisory Group shall be Co-chaired by one (1) representative from Information Technology Services and one (1) other voting member. Co-chairs shall be elected by and from the membership of the Group for a two-year term and may serve consecutive terms.
- The Data Stewardship Advisory Group Co-chairs shall call regularly scheduled monthly meetings and solicit input and provide meeting agendas.

#### C. **Responsibilities of the Data Stewardship Advisory Group**

- Members of the Data Stewardship Advisory Group shall meet at the call of its chair.
- The Data Stewardship Advisory Group is responsible for developing and recommending policies, procedures and guidelines to Cabinet for university-wide data administration activities.

- The Data stewards have the authority to make decisions about data within their area of responsibility (e.g. Student Data – the Registrar, Constituents – Advancement Services. As a group, they are responsible for CORE designated data, such as addresses.
- The Data Stewardship Advisory Group is responsible for communicating and enforcing current policies regarding the collection, quality, administration, maintenance, processing and dissemination of university data.
- The Data Stewardship Advisory Group is responsible for forming working groups as necessary to deal with data related issues or projects. Working groups will meet and work according to a written plan of action.

**D. A Quorum of the Data Stewardship Advisory Group**

- A quorum of the Data Stewardship Advisory Group shall consist of those members (or their designees) of the Group who attend an announced Data Stewardship Advisory Group meeting. A binding vote of the Data Stewardship Advisory Group will be cast by a majority of those voting members (or their designees) who are present.

**E. Record Keeping and Reporting by the Data Stewardship Advisory Group**

- Co-chairs of the Data Stewardship Advisory Group (or designees) shall act as recording secretary to the Group. Minutes of all Data Stewardship Advisory Group meetings shall be distributed to members by the next regularly called meeting and approved minutes shall be posted electronically for review. The Data Stewardship Advisory Group shall present an Annual Report to the President’s Cabinet.

**APPENDIX D. REPORTING SUPPORT WORKING GROUP**

Consistent with the ITS mission to provide meaningful, timely data, a new Reporting Support Working Group (RSG) has been established to carry out this mission. This group will work closely with our Data Steward Advisory group to respond to matters related to reporting and data management.

**RSG Responsibilities:**

- Provide a process or method for requesting data (data request form)
- Increase reporting capacity by making data available
- Master data management
- Maintain reporting repositories and databases
- Serve as report writers as necessary and appropriate
- Implement and maintain a report inventory

**RSG Team Members:**

- ITS Senior Programmer Analysts (Shannon Duncan, Tim Morris)
- Enterprise Data Analyst (Kevin Kropp)
- Database Manager (Todd Logan)



- Manager of Administrative Application Services (Gary Gonzales)

**RSG Goals:**

- Take lead role in Master Data Management
  - Facilitate documenting business rules and processes
  - Define university-wide standards for key data points and measurements
  - Provide clean, accurate metadata for all reporting sources through the development of an interactive lexicon
- Establish a framework that enables our end users to independently access and interpret decision support data (parameters).
  - Create and maintain a functional data repository for Department of Institutional Research
  - Create repository for Colleague Recruiter data
  - Additional repositories for areas as identified
- Streamline and simplify process for end users to request and/or access data
  - Create a university-wide standard and system for report requests
  - Provide a report inventory that enables users to identify existing reports
- Evaluate existing data universes
  - Determine relevancy while creating (eliminate 'junk' or unused universes)
  - Develop consist naming conventions for all universes
  - Complete the migration of Data Orchestrator transforms to stored procedures