Information Access:
Data Stewardship and Data Usage

Banner User
Banner Forms
Application Programmer
SQL Plus, etc.

PeopleSoft User
PeopleSoft Screens
Application Programmer
SQR, etc.

Application User
Application Interface
Application Programmer
Programming Tools

Other Data Steward

transactional

Banner Tables

Students Data Steward

transactional

PeopleSoft Financials Tables

PeopleSoft Financials Data Steward

transactional

Transactional, trending, analysis

Other Applications

Finance Data Steward

transactional

Operational, Day-to-Day

De-normalize, store calculated values, many fewer tables, “flat files”

Aggregations, trending, analysis

Institutional Data Warehouse

Management, Administrative and Executive Views

Student Data Steward

Campus-wide GoSolar consumers and specialists

Campus-wide Spectrum consumers and specialists

Institutional Data Administration Process

Other Data Steward

Finance Data Steward

Operational, Day-to-Day

Decision Support Data Steward

Institutional strategic decision makers and external consumers

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Information Access:  
Data Stewardship and Data Usage: Lexicon

Banner/PeopleSoft Application User:  
Implies transactional, regular use of the application for business functions. Access is through the supplied client software. Can be a high-volume, heavy use customer, or a low-volume, light use customer.

Application Programmer:  
The programmer is granted the authority by the functional application owner to maintain the application system through upgrades, patches and modifications. Typically the programmer accesses the system through programming tools, such as C, SQL-Plus, or others.

Student/Financials/Other Data Steward:  
Data stewards are the responsible senior management of the specific functional areas in the University. These functional areas are defined by the primary university purpose served by the data. Due to extensive interaction across functional units, functional classification may not necessarily follow organizational lines of authority. A functional unit may be given authority for data that is shared by many other organizational units.

Banner/PeopleSoft Financials/Other Tables:  
Depicts the complexity of a state-of-the-art relational database application. Such a system is “highly normalized”, meaning that a series of steps have been followed to obtain a database design that allows for efficient access and storage of data in a transactional environment. These steps reduce data redundancy and the chances of data becoming inconsistent. At the same time, this technique produces a design that is very complicated and difficult to understand because it typically generates hundreds of tables. For example, you might hear that in the Banner system there are 2,100 data tables to represent the student information. There are about 6,100 tables in the PeopleSoft Financials system!

University Data Administration Process:  
Implies a function to act as overseer or quality assurance agent over the Extract-Transform-Load (ETL) process that builds both the application data stores and the institutional data warehouse. In the transformation process from the complex, highly normalized transactional databases to the more simple, de-normalized data stores, information consistency and integrity must be maintained. Equivalency of information across data stores and the warehouse must be assured. The Data Administration process reflects a coordination effort between data stewards, technical implementers and information providers.

Extract-Transform-Load:  
A technical process invoked on a regular basis to create the institutional data stores and data warehouse. The extract function reads data from a specified source database and extracts a desired subset of data. Next, the transform function works with the acquired data - using rules or lookup tables, or creating combinations with other data - to convert it to the desired state. Finally, the load function is used to write the resulting data (either all of the subset or just the changes) to a target database, which may or may not previously exist.

Banner/PeopleSoft Financials Operational Data Store:  
The Operational Data Store (ODS) is a subject-oriented, integrated, frequently updated, detailed collection of data in support of the need for day-to-day operational information. The simple structure of the ODS data tables facilitates ad-hoc queries and reports with easy to use tools such as Crystal.

Institutional Data Warehouse:  
A data warehouse is designed to support decision making, or to preserve certain sets of information at various specific points in time. The data are typically historical in nature and are arrayed to support trending analysis and other long-term study. In many cases, aggregation of data occurs so that results are summaries and not detailed data.

Campus-wide GoSolar/Spectrum consumers and specialists:  
Represents Georgia State staff and faculty with a need to view student-based or Financial information. These individuals might be based in the specific functional departments, and would have day-to-day responsibilities in these business areas. Or the individuals could be outside of the specific business area, but yet need information from the ODS in order to perform their jobs. It is important to note that in both cases, individuals might be consumers or specialists. The consumer would expect to view previously created reports; whereas, the specialist might expect to be able to generate ad-hoc reports based on ever-changing information needs. Typically, the campus recommended choice of Crystal Report Writer would be used; but in some cases other tools will be used because of pre-existing expertise.

Institutional strategic decision makers and external consumers:  
Strategic decision makers, such as the university President, Provost, Deans, and Vice Presidents (and their designees) would expect to use the institutional data warehouse to assist in long-term decision making. From a nearer-term perspective, information would be expected for chairs and department heads to guide their decisions. External consumers would expect to obtain high-level statistical information from the data warehouse.