This request is made in aligned partnership with Student Systems2012, with the plan for the campus EDW to be the place that planning, decision support, reporting, and self service functions for student data are served. This proposal is to develop the initial component of the student-related section of the Enterprise Data Warehouse (EDW) as a fully production-quality system, meaning that the data delivered will be intrinsically accurate, delivered in a way to promote accurate use, be current and available as needed, and be structured so as to be easily combined with other EDW data such as Finance and Human Resources data. The information is to be delivered through a set of easily-understood standard reports as well as being available for custom analysis through ad hoc reporting. Access to data will be restricted to enforce the access policies of the appropriate custodians, such as the Registrar.

Specific objectives of this initiative:

- Evaluate the scope of data and reports against the idea of “census data” as described by the SDW committee. This must be performed first to establish realistic and usable results. This scoping phase will address specific data elements, timing and frequency of loads, campus usage and report requirements.
- Deliver defined reports to campus users through a production portal with the new Hyperion System 9 infrastructure. We assume 5 reports will be developed as part of this process.
- Define a comprehensive security model for the data and reports to ensure data stewardship for this sensitive data.
- Extend the SARA system used to manage requests for access to the data and reports.
- Develop and publish a comprehensive set of functional and technical metadata to support effective consumption of the reports and data retrieved through adhoc queries. This will involve significant functional involvement to develop descriptions of the data elements and related processes.
- Create a model to allow for Level-1 user support where initial questions, bug reports and enhancement requests will be directed. This function will be defined, staffed and provided with the infrastructure necessary.
- Reconcile ETL functions (extract, transform and load) to the standard toolset.

1. ALIGNMENT WITH IT STRATEGIC PLAN

Critical Issue 2: Student experience, from prospects through alumni

Student experience 3: Students are best served by staff and faculty who have access to student information that is seamlessly integrated and used throughout the campus.

For the student data warehouse to become widely used to help with key decision making by administrators (Goal 1), the data must be delivered through a production system to the appropriate audiences. This initiative will do so, using a common metadata schema with Finance and Human Resources data (Goal 3) that will be part of the rearchitecture of the campus data warehouse (Future Action 1).

Student experience 4: Students are best served when the University can officially account for all students with the State, and demonstrate its compliance with the growing range of regulations and policy changes in many areas including student enrollment, financial aid, athletic eligibility, homeland security, and others.

To account for all students and demonstrate compliance with the growing range of regulations and policy changes, data from student systems must be available through a production system to ensure timely compliance (Goal 2), be protected as usage expands (Goal 4), and ensure accuracy in any student census (Goal 5).
Critical Issue 3: Research

Research Strategic Technology Need 4: Data stewardship and digital asset management: Disparate, very large data sets require next-generation metadata management . . . to ensure availability of data.

Moving student data into the EDW production system will ensure metadata management for it as part of the EDW development of a common metadata schema with the next-generation metadata management tool sought through another initiative. Inclusion of student data into a production EDW managed by this tool is critical to achieving comprehensive digital asset-management (Goal 3).

2. IMPACT

The campus funded the development of the Pilot Student Data Warehouse (SDW) in FY 2005, recognizing the need and value of a data warehouse for student data to support departmental planning and decision making activities. The Pilot Student Data Warehouse has been in operation since that time.

A robust EDW is a key component of Student Systems 2012 project, and the campus and departments need the facility that the EDW brings as soon as possible. This EDW-building project will deliver aspects of student data that can be developed ahead of the 2012 project, so that the campus can realize immediate benefits in the areas of decision support, planning, and reporting on integrated student data as soon as it can be developed.

Defined reports to campus users will be delivered through a production portal with the new Hyperion System 9 infrastructure. Creating well-managed access to student data through the EDW supports the goal of providing faculty and staff with better tools to continually improve the student experience.

3. RISK ASSESSMENT

Analysis in Phase 1 of the Data Warehouse Architecture Project found that many of the business reporting challenges experienced were created by the UCOP census, due to an inability to reconcile data, handle multiple census dates for different census components, and understand what was being reported. The risk that comes from this for this project thus becomes confirming the appropriate and achievable objectives, which is therefore one of the first activities within this initiative. Scoping will be guided by the architectural principals as defined within the Phase 2 report from the Data Warehouse Roadmap project, and specifically the data architecture described in that report.

4. INNOVATION

Campus data has never truly been reconciled to the degree that will be essential to creating the multi-dataset enterprise metadata schema envisioned as a part of this project. The participants will be called upon to find ways of normalizing these datasets in a way that will serve long-term needs and avoid the heretofore single-purpose and often contradictory approach to campus data.

5. FUNDING MODEL

The following resources are required for this project:

- 100% FTE for Data / Business Analysis
  - New temporary funding of $85,000 plus benefits for FY 07-08
- 100% FTE for Level-1 Support
  - New permanent funding of $52,500 plus benefits for Q2-4 of FY 07-08 and $72,450 plus benefits for FY 08-09
- 100% FTE for EDW ETL Developer
  - Existing funding of $85,000 plus benefits
- 50% FTE for report development contractor
  - New temporary funding of $67,500
- 2 months SARA developer (IST recharge)
  - New temporary funding of $24,640
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<tr>
<th>Summary of Funding Model: Administration/IST/Registrar: Add Student Data to Enterprise Data Warehouse</th>
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<td><strong>Summary of funding: campus vs other</strong></td>
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<td><strong>TOTAL ALL FUNDING SOURCES</strong></td>
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**Note:** In accordance with the University’s accounting system, positive numbers are expenses or deficits, while negative numbers are funding or surpluses.