

# **An Eye on the Dashboard, an Eye on the Budget: Driving Higher Education Financial Operations in the Right Direction**

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## *Abstract*

*The call for higher education institutions to become more accountable to the students they enroll, its constituents, and financial supporters is echoed more than ever before. How institutions utilize their resources is critical to accountability. Equally important is a statistically sound model on which leadership can base strategic decisions. The most important of these decisions involves appropriate budgeting and planning. Supporters want to know that institutions are making decisions that are strategically sound and in the best interest of the university. Louisiana State University System has taken a holistic approach to its budget and planning operations in the development of a dashboard that responds to the call for accountability, but also provides a solid statistical foundation for planning, monitoring and tracking of its financial operations. The dashboard allows the system to speak to specific financial goals and achievements in a very succinct way. It also places at the fingertips of leadership a snapshot of system operations based on indicators that are mission critical to higher education success. It has caught the attention of both students and faculty in the system interested in the state of affairs of their campus.*

*The methodology employed is designed with a two-fold mission in mind, accountability and getting the best return on investments through strategic financial planning. The focus of this best practice submittal is to show how keeping an eye on the dashboard and an eye on the budget can drive higher education institutions' financial operations in the most effective direction.*

## **Introduction of Organization**

The Louisiana State University System has authority over one of the most diverse, comprehensive and complete higher education system in the country. The system has institutions ranging from a 2-year institution, masters granting four-year institutions, doctoral granting institutions on up to a major research university. The System also has a Health Care Services Division that includes Louisiana's Charity Hospital system. The System has facilities and/or programs strategically placed in each of Louisiana sixty-four parishes to ensure that the citizens of Louisiana has the best opportunity possible for access to higher education and a healthier Louisiana.

The System delivers services to students enrolled in hundreds of degree programs and to thousands of citizens who participate in non-degree activities. Prior to the devastation of hurricane Katrina in August 2005, the system enrolled over 62,900 students at its five teaching campuses (Louisiana State University, University of New Orleans, LSU Shreveport, LSU Alexandria, and LSU Eunice), and three professional schools (LSU Health Sciences Center New Orleans, LSU Health Sciences Center Shreveport and Paul M. Hebert Law Center). As a result of hurricane Katrina, total headcount enrollment in the system declined to 54,155 in Fall 2006.

The System also delivers services through its LSU Agricultural Center and the internationally renowned Pennington Biomedical Center. Additionally, the System clients extend beyond students to all citizens who benefit from a healthy economy. As a primary coordinating authority over institutions, which contribute to workforce development, job training and retraining and healthier citizens, Louisiana's businesses and industries are primary clients and users of the Louisiana State University System policies and plans. And, finally, as a System committed to being accountable to its constituents, the primary clients and users of the System's

programs are all of the citizens of Louisiana who contribute tax revenues to state government and support higher education in Louisiana.

### **Statement of Problem/Initiative**

Higher education is a transforming environment that requires unique and transforming statistical models to help ensure its success. The problem is that the public has increasingly high standards for college and university performance, but in many cases, confidence in the higher education system is low because these institutions do not have in place the tools that demonstrate successful performance, planning and management. Even worse, this disconnect is reflected in funding concerns. To eradicate this problem, institutions must become proactive and begin developing monitoring and tracking tools to help restore confidence in the academe, its mission and goals. Data need to be detailed in a user friendly manner and made available for public viewing.

The higher education environment has become an environment of scarce resources where state appropriations have experienced a significant decline over the last ten years. Institutions are forced to rely on private funding and tuition increases more than ever before in the history of education. Institutions must demonstrate that funds received are managed in the best way possible to benefit the university. Universities must also demonstrate that students are not just being recruited as a means of financial resource. They must show that they take serious the success of the students admitted to the institutions.

In a typical assessment model, the academic side is continuously monitored and tracked in one model to detect areas that need attention and the financial side is tracked in another model. Rarely are both monitored in the same model. The problem with tracking one side absent of the

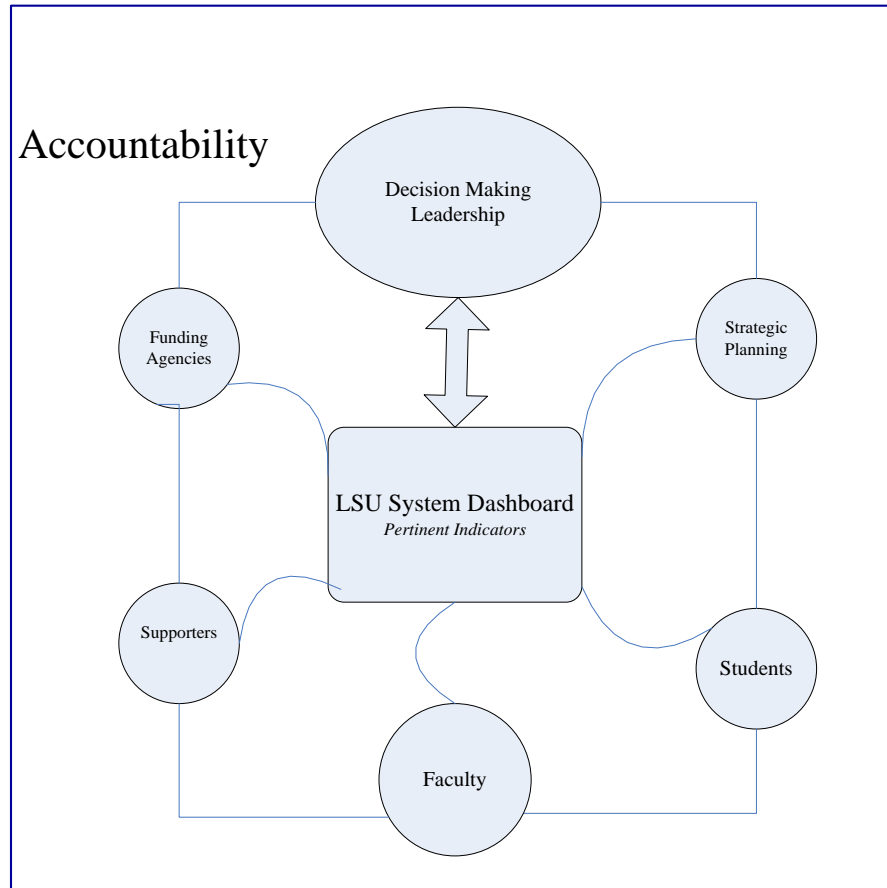
other is that it fails to provide a holistic picture of the state of affairs of the institution. The best decisions in higher education are made with the best interest of the entire institution in mind. A monitoring model that provides this picture gives leadership the opportunity to prioritize based on complete operational facts. For example, it would be difficult to assess student performance as it relate to expenditures without a model that speaks to both the academic side and financial side of an institution's operation simultaneously.

Needs for higher education institutions to transform their data into valuable information that can drive better decisions has been underscored by increase competition in all aspect of higher education (Lawson & Brewer, 2007). According to Lawson and Brewer, the need for educational institutions to transform their data has also been echoed in the call for higher education to become more accountability to the students they admit by Secretary of Education Margaret Spellings. A noted shortage of clear, accessible information about crucial aspects of American colleges and universities is an issue that Secretary Spellings has called for higher education to address. Department of Education (2006) posits that data systems are so limited and inadequate; it is hard for policymakers to obtain reliable information on student progress and financial performance.

The model employed by the LSU System is unique and innovative. It brings to the forefront a way to demonstrate to students, faculty, and higher education supporters the institutions' dedication to its goals and mission. It provides leadership with a detail picture of operational performance and trends. It is uniquely positioned to restore confidence in the higher education environment that have been lost due to the rising cost required to maintain higher education operations and a lack of available outcome and performance documentation.

## Design

The design of LSU System “best practices model” is best understood in the following concept map:



The dashboard with its pertinent indicators sits at the core of LSU System’s operations and accountability. Leadership remains watchful of the gauges (indicators) in the dashboard. Movement of the gauges is relevant to decision making. The directions in which the gauges move are essential to strategic planning. Effective strategic planning based on sound statistics and benchmarking helps ensure LSU System supporters that they are getting the best return on investments. Student, faculty, supporters and funding agencies are informed of the state of the affairs of the institution by the dashboard. The data, information, summaries and analysis made

available by the dashboard speak to the call for higher education to become more accountable. Specifically, it speaks to the lack of statistical models available for monitoring and assessing higher education operations, and thus makes the LSU System more accountable to the public it serves.

### *Developing the Dashboard*

Developing LSU System Dashboard required teamwork and support from both the finance area and institutional research area. Few institutions are able to capture and report their many data points on all levels (Harel and Sitko, 2003). Harel and Sitko further state that factors such as student recruitment and admission, teaching load, graduation rates, staff turnover, generated funds, and proposal-towards all affects a university's performance. A successful institution dashboard is a management tool for setting and measuring expectations at every organizational level (Harel and Sitko, 2003). It also provides charts and reports of the progress throughout the year. Higher education institutions have a "significant opportunity to apply knowledge management practices to support every part of their mission," explains Kidwell et al (2001, p. 24) as stated in (Milam, 2001).

### *The Heart of the Design*

A dashboard system that speaks to an institution holistically is not something that institutional research, budget and finance can handle alone. It requires teamwork and buy-in from leadership. It requires that management teams have the right mindset. After all, one primary goal of the dashboard is to help management teams navigate through strategic decisions. They are in the driver seat and they are responsible for decisions regarding indicators on the dashboard. Therefore, they cannot afford to lose track of the gauges on the dashboard. Management support is paramount to a successful dashboard implementation. Dashboards

respond to questions facing institutions such as, does the institution have adequate funding to cover expenses? What is the success rate of students who enter the institution? What areas of the institution's operation need immediate attention?

The process in developing the dashboard sets the pace for the design of the tool. Developing an institutional dashboard that respond to the many strategic questions facing institutions is not a task for the novice. Begin the process with questions that are most pertinent to your institution's operation. These questions become the foundation for your design. What indicators are impacting the operations of the institution most in the current environment? What data best responds to questions? Data pertaining to indicators may all be stored in your campus computer system or it may be stored in a national database. Obtaining this data with integrity can be the most challenging part of the development. The first step is learning to properly navigate data stored in these systems. Finding a source of comparable institutions data that will serve as a benchmark along with finding ways to mine this data can prove to be equally as challenging.

Benchmarking is critical to the function of the dashboard. You may choose to use the average of your own institutions' past records or the averages of your institution comparison group. Your choice of benchmark depends on the indicators, your institution mission and goals. For example, the Integrated Postsecondary Education System (IPEDS), higher education's primary database is the data source for the LSU System dashboard. Benchmarks are set for each campus based on a set of defined peer institutions determined by each respective institution in the system. Each campus is measured against the average, minimum, and maximum performance of their peers historically. A red flag signals when the institution moves below the average and a blue flag indicates that the institution is above its peers. The flag remains black if

the institutions' indicator is the same as the average of its peers. While all indicators are monitored historically, the measuring gauge in the model is based on the current year's calculations.

It is important in the design to verify that indicators used in the model are most critical to the operations of the university in the current environment. There are many performance indicators in which to choose. You may begin with the variables collected in IPEDS. In addition, think about the many other variables outlined in US News surveys and College Board surveys. Another key to the successful design of the dashboard is building a link between any one of these variables to your institutions dashboard. By far, the most important step in the design is getting the institution's leadership, in which the dashboard is primarily intended to serve, to buy into it. Accomplishing this step should occur throughout the dashboard's developmental and completion process.

The dashboard is an excellent way to turn data into knowledge. It is a perfect way to use data stored in higher education databases as a measurement and decision-making support tool. As mentioned, for the purpose of this research, data used is that submitted to IPEDS by LSU System campuses and their defined comparative institution groups. Through the development of its dashboard, the LSU System has successfully transformed IPEDS data into a customized tool to inform leadership, students and supporters of the system and its campuses' state of affairs.

#### *How does it work?*

The dashboard must respond to critical question much like the dashboard found in a car. Consider the significance of an institution's leader being able to consult a dashboard of critical gauges similar to those in a car as detailed by Harel and Sitko (2003) in the following illustration.

In the Car		At the University	
Gauge	Indicators	Gauge	Indicators
Fuel gauge	Can you continue to drive?	Resource gauge	Do you have enough resources (money, faculty, staff members) to do your work?
Speedometer	How fast are you going? Is safety threatened?	Threat dial	Is your risk level too high? What will the auditors find?
Battery	Can you start the car? Without a charging system your system will shut down.	Input graph	Are you getting enough student applicants? What's the quality of the incoming students? Do they generate enough research income?
Tachometer	Is your engine running smoothly? Useful for best fuel economy or best acceleration.	Institutional pulse chart	Are the graduation statistics on target? New building starts and capital growth? Endowments and investments?
Temperature	Is the car overheating?	Opportunity gauge	What is the cultural temperature of the campus? Salary gaps? Morale? Upcoming retirements?
Oil pressure	Just as important to an engine as blood pressure is to a person.	Environmental scan	Where are the pressure points?

Mileage	How far have you gone/	Trend statistics	How close are you to achieving your important goals?
Warning lights	Turn on when something is wrong – may not be too late.	Red flag report	How much money is in overdraft accounts? How much money is lost in delinquent accounts?

The LSU System dashboard allows for constant monitoring of its gauges that are pertinent to survival and moving its campuses in the most effective direction. Those gauges are built on indicators that are significant to the LSU System and its campuses. Each indicator is checked periodically, but is updated annually to include the most current data available.

The integrity of data mining and its source is vital to the validity of the dashboard. The dashboard provides the bases for analysis and future projections; therefore it must be built on a solid foundation. The LSU System dashboard is located at <http://www.lsusystem.lsu.edu/dash/>. It allows viewers to experience data mining, summary, analysis and accountability rolled into one tool. It provides a solid statistical foundation to aid leadership in their decision making process.

The design is user friendly and speaks specifically to the direction in which the LSU System and its campuses are headed relative to a specified set of comparable institutions. Using the information provided in the dashboard, future directions of indicators are estimated and can easily be simulated using historical trends.

## **Implementation**

Implementing the LSU System dashboard did not come free of challenges. The greatest challenge lie in implementing the project was due to the fact that it was done at the System level. The LSU System has five teaching campuses and three professional schools with individual goals and missions in which each play a vital role in a collective LSU System set of goals and mission. A successful dashboard remains true to the mission and goals of the institution. Achieving this goal at the System level while also remaining true to the mission and goals of each of its campus' individual goals was critical to the project's success. From this perspective alone, the dashboard project was confronted with many different mindsets. Listening became a key factor. It is important to hear what potential users have to say.

Full implementation of the LSU System dashboard took in excess of six months. After the completion of the data mining process, steps had to be taken to ensure the consistency of the data collected from IPEDS to data stored in-house on each of the LSU system campus. Collecting the data and ensuring its integrity are critical to every aspect of the implementation of the dashboard. Ensuring that the design speaks appropriately to the mission and goals of the institution was also critical. This process involved discussions with key players at both the system administrative levels and campus administrative levels. It is important that leadership buys into the process early in the developmental stages; therefore it was important to update leadership periodically on the project's progress and applications. Once all check points have been covered, the final stage of the project implementation involve putting the gauges of the dashboard to work for the LSU system in the tracking and monitoring of operations and, specifically, using it to analyze current financial operations and project future outcome.

## **Benefits**

The benefits of the LSU System dashboard are many. First and foremost, it speaks to the call for higher education institutions to become more accountable. It speaks to the lack of available systems and data in higher education that have resulted in the public's loss of confidence in higher education operations and systems. Because the dashboard includes information that was distributed in fact books that are now available online, the project saves the system money in printing and copying cost by placing this information at the fingertips of LSU System users. It provides higher education leadership, its supporters, parent and students with a snapshot of the state of affairs of the institutions in a very efficient and user friendly way. And, as was demonstrated in the LSU System 2007-2008 budgeting and planning process, it provides a statistically sound basis for decision making, projections and analysis that greatly improved the process.

## **Retrospect**

Currently, we know of no other marriage between institutional research, budget, planning and finance that have resulted in such a holistic approach to the university's planning and assessment of its financial operations. During the past year and half, this project has brought insight into system and campus operations that has not been seen before. It has provoked thought and brought attention to areas of the operation that warrant attention, but may have gone unnoticed. The LSU System dashboard and its detail summary analyses have proven to be an asset to the system and are expected to continue this trend for some time into the future.

However, there are some limitations to the dashboard that the system is working to address in future version of the model. The first limitation was experienced in the way in which

each of the campus within the LSU System reports and track financial data in-house. Specifically, because depreciations were reported differently from the way in which it was reported to IPEDS by some of the LSU System campuses; it required some manipulation to ensure that the comparisons compared apples to apples. Because of the way campuses reported their proposed budgets to the system, it was difficult to use the expenditure by function per full-time-equivalent (FTE) enrollment model to project the direction in which the proposed budget would go relative to its current peer groups. This information would prove useful in helping the campuses meet future budgeting goals. It could provide some insight into the future that are relative to the decision making process of which financial functions or most in need of attention.

The LSU System hospitals, which include public hospitals in Louisiana, operate as a separate entity from the academic side under the LSU Health Care Services Division. Data for these hospitals are not reported to IPEDS. Therefore, strict attention had to be paid to comparative institutions that included hospital data in their reporting to IPEDS. Plans are already underway to address this issue in the future dashboard design. Overall, the current model is working and with little tweaking is expected to remain a pillar of support in LSU System future financial operations.

Finally, in retrospect there were several lessons learned in the completion and implementation of the LSU System dashboard and its applications to the budgeting and planning project. A selective few of them are listed below.

- The first lesson was a re-confirmation of the importance of teamwork. There is no “I” in teamwork. The success of this best practice project by institutional research, budget, planning and finance required input from each of the campuses in the LSU System.

- The importance of consistency in reporting techniques and format is vital to the integrity of the project. This was an area that presented challenges in the current model in which the system will address in future models. It would greatly improve the process if in-house financial reporting is more consistent with data format reported to IPEDS.
- Identifying and utilizing the unique talents that each project participant brought to the table made for a very productive and worker friendly environment. It allowed for the accomplishment of tasks that may not have gotten completed without these unique talents working together collectively.
- The importance of communication was certainly reiterated throughout the project. It prevented duplications and made for a very productive environment.
- Accountability in higher education extends to every area of the institution. Therefore, it is important for each level of administration to keep accountability in mind as business is conducted throughout the fiscal year. The idea of accountability served as one of the pillars in the development and implementation of this project.
- The availability of higher education data in a user friendly way is not only valuable to the institution; it is of interest to students, faculty, supporter and constituents.

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