Toward Implementation of Administrative Metrics
University of Minnesota

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Creating a culture of transparency where all members of the University community can see the results of the performance of various units will help create a culture of accountability. Successful implementation of administrative operational metrics can create a culture of transparency that would drive this culture of accountability to new levels at the University of Minnesota where all leaders would ensure that their areas of responsibility operate as efficiently and fiscally responsible as possible. This report outlines key factors and several recommendations to ensure successful implementation of administrative metrics.

The President’s Emerging Leaders (PEL) Administrative Metrics team believes the University is in a state of readiness to incorporate administrative operational metrics into its key management processes in order to position itself as a top three public research institution in the world. Our recommendations provide a clear path to implementation of a sustained administrative operational metrics process that would cascade throughout the University.

Our project scope was to research University-level administrative operational metrics within the metric structure at the University. Our research included a qualitative analysis based on team interviews with administrative vice presidents and unit leaders. We also conducted an extensive literature review that included books and articles written by leading authorities on the use of performance metrics. Our recommendations are based on the team’s findings in its literature review, the analysis of several interviews, discovery of metric usage in peer and aspirational higher education institutions, and many other data sources, see Project Research Methodology for more information.

After conducting an extensive research protocol, working many hours with our project sponsor and leaders, and synthesizing and analyzing much data, our team has developed the following recommendations, which we feel will ensure a successful implementation of administrative metrics.

Greatest Assets

*University staff, faculty, and administrators who are committed to creating a culture of excellence through evidence-based decisions are by far the University’s greatest assets when implementing administrative operational metrics.*
Embedded in a collaborative organizational structure
Through a coordinating unit and steering committee, stakeholders should help inform the vision, policy, implementation, and assessment of administrative operational metrics.

Anchored in management processes
Administrative operational metrics should be specifically “tied” to an established process with accountability and decision making at all levels. The compact process, for example, is a key process to consider.

Integrated into a reporting tool for transparency and flexibility
Software should allow each unit to gather and report data that will align with the University-level visual tool.

Implemented in collaborative, reflective phases
The following guiding principles should influence the execution of each strategy within each phase: strategic communication, collaboration, staff development, transparency, reflection and feedback, and the University’s criteria for decision making.

Our team created a resource Web site where many articles, presentations, reports, and audio recordings on administrative metrics can be downloaded. These resources, along with many others, helped to inform our recommendations. Our full report can be viewed online at www.myu.umn.edu/public/administrative metrics.htm. This Web site may not be updated after this report is printed.

The culture of accountability at the University of Minnesota can be successfully raised. We feel that the University is ready to begin by tapping into its current resources and prioritizing its initiatives. With the help of many talented people, including our sponsor and project leaders and those interviewed during our research, the processes of implementing administrative operational metrics could begin today.
The authors of this report greatly appreciate the opportunity to work on the Implementing Administrative Operational Metrics project and the support we received from our sponsor, Steve Cawley. Our success with the President’s Emerging Leaders program was greatly influenced by our project leaders, Meredith Fox and Bernard Gulachek, who offered thought-provoking dialogue, encouragement, guidance, and challenging leadership lessons throughout our project.

We also acknowledge the value in being a part of the President’s Emerging Leaders program, including its training and leadership opportunities. David Dorman, the program coordinator met with our team regularly and provided wisdom, guidance, and energy to keep the project moving forward. We also acknowledge the support, guidance, and knowledge provided to each of us by our individual PEL coaches. Finally we acknowledge Matt Larson, from the Office of Continuous Improvement, who was instrumental in guiding our team to identify our project priorities and in shaping our team’s work.

We thank the many members of the University’s executive administrative team who graciously offered their time to give us insight into the operations of the University. We appreciate the key leaders from Morris and Duluth who willing met with us to help inform us in our project work (see Appendix F).

Finally, we would like to thank our supervisors who encouraged us to participate in PEL, offered support throughout the year, and were patient and understanding as we balanced our responsibilities to our respective units and the PEL project.

Special Thanks

Our success with the President’s Emerging Leaders program was greatly influenced by our project leaders, Meredith Fox and Bernard Gulachek, who offered thought-provoking dialogue, encouragement, guidance, and challenging leadership lessons throughout our project.
To help the reader navigate the information in this report, we are using dialog boxes to highlight the most critical information and to direct the reader elsewhere in the report.

Because there might be some terms that are not defined by the University or have different meanings, we have identified definitions of the most commonly used terms in the report. These may not be the “official” definitions and are not meant to be comprehensive.

**University System**: all University of Minnesota campuses, centers, offices, and outreach stations.

**University-level**: level of decision making that affects all levels within the University system, including but not limited to senior leaders and administrative vice presidents.

**Senior Leaders**: President and senior vice presidents.

**Administrative Vice Presidents**: Vice Presidents (based on University, Twin Cities campus, administrative organizational chart, October 2007).

**Central Administrative Unit**: consists of central units that provide services and/or leadership for a University management function. Examples include the Office of Human Resources, Office of Information Technology, etc.

**University Management System (Function)**: is used to describe a central administrative unit plus the resources (staff and otherwise) devoted to that particular administrative function (information technology, human resources, communications and marketing, facilities, finance, and research administration) as it marbles into the University.

**Unit Leaders**: academic or administrative leaders responsible for a unit.

**Unit**: broad term to represent any academic or administrative organizational entity within the University system. This could include central units, college units, service units, coordinate campuses, etc.

**Unit-Level**: level of responsibility for decision making (see also “Unit”).
We have also developed a comprehensive glossary of terms, associated with organizational effectiveness (see Appendix C, *Common Language*).

As noted earlier, this report has a companion Web site where many resources can be downloaded in case the reader wishes to learn more as they read this report. Our full report can be viewed online at the following Web site:


This report is based on the PEL team’s research and analysis of the information available to them. Our recommendations were influenced by the interviews and discussions held with administrative staff who are currently working to implement a metric structure. The overall University metrics structure is being called Academic Analytics. Administrative operational metrics are a component of that structure. Our project scope was confined to developing a plan to implement administrative operational metrics and did not focus on the other aspects of Academic Analytics.

Our research focused on successful implementation of administrative operational metrics and did not attempt to define specific measures or data sources. These were pursued by the University Administrative Team, independent of the PEL team. Some of the results from their work have been discussed in this report, but the totality of their work is documented elsewhere.
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Appendix B: Overview of Academic Analytics and Administrative Operational Metrics

The President’s Emerging Leaders (PEL) Implementing Administrative Metrics project was created to support President Bruininks’ charge to the Administrative Service and Productivity Steering Committee and later the University Administrative Team, to identify key outcome-based measurements to assess administrative performance and benchmark their activities.

The PEL team has spent a significant amount of time this past year working to identify implementation strategies for measuring key management processes in administrative operations that would cascade throughout the University from central administrative units to college units. The PEL team was given the goal of “conducting relevant research and developing recommendations to implement and operationalize meaningful and sustainable administrative operational scorecards” (see Appendix A).

We recognize that administrative operational metrics is just a portion of the overall metrics structure at the University of Minnesota. The basis of this report was research around implementation of administrative operational metrics only. As demonstrated in Diagram A, Robert Kvavik, Associate Vice President of the Office of Planning, has prepared a proposal and plan to implement an Academic Analytics structure at the University. The plan includes the use of administrative operational metrics to focus on productivity, service, continuous improvement, and employee engagement of administrative functions. The measurement systems focused on the strategic performance of administrative functions as well as measures about the performance of the academic enterprise are outside of the scope of this project (see Appendix B).
The pressure to do more with less has never been as strong as it is today with decreased funding from the state legislature, demands to keep tuition increases low, and increased competition among most institutions of higher education to admit and graduate the “best and the brightest” students. To strategically reposition the University to achieve its goal to be one of the top three public research institutions in the world, swift and thoughtful actions need to occur at all levels of the University.

Two ways the University can effectively respond to this call to action are to increase its administrative efficiencies and become more transparent to internal and external stakeholders. It is important for the University to identify where it stands today and how it can measure its improvement in performing key administrative management functions.
Clearly understanding how each unit’s performance is viewed and using data for evidence-based decision making can articulate the future of the unit and the University. With the combination of integrating administrative operational metrics into the University’s metrics structure and into key management processes, leadership can focus on evaluating the performance weaknesses and allocate resources to formulate improvements based on solid data.

Implementing administrative operational metrics across the University could increase the accountability of each and every staff person. The accountability of both human and financial resources can be embedded in performance indicators. At every level within the University, staff can play a role in the outcome of the metrics. Being transparent in measurement outcomes imparts the accountability to each one of us and defines our role to support the University in delivering its mission and in reaching its vision.

This transparency will provide state legislators, private donors, faculty, and staff with the vision to see clearly the efficiencies of the University administrative processes. It will engage staff to embrace the measures and collaborate on defining improvements. It will reinforce the goal of the University to reposition itself as a research university of world status. Knowing that the University is a good steward of all financial resources will allow doors to open for new potential funding.

Some of the University’s peer institutions and other higher education institutions in Minnesota are doing some form of performance measurement. The University of California, San Diego, is well immersed in its evaluation of management processes and efficiencies. They have created a transparent view of their strengths and weaknesses through a Web site available to internal and external viewers. In Minnesota, Rochester Community and Technical College implemented metrics and is in the second year of the process. Although it is early, their effort is viewed to be successful.

This urgency is also felt within our own University. Some central administrative units that provide service across the University system have initiated some form of performance metric measures and openly share their performance outcomes with the University community.

Guiding Principle

Transparency

Being transparent in measurement outcomes imparts the accountability to each one of us and defines our role to support the University in delivering its mission and in reaching its vision.
Facilities Management and the Office of Classroom Management use a metric performance system, Human Resources created its own measurement process, and the Office of Student Affairs is close to completing their own metrics. The balanced scorecard is one type of visual tool used to give a “snapshot” of a unit’s performance in specific measures within a designated period of time. All of the units interviewed described success with their process and indicated that employee involvement and the willingness of the unit to be transparent about the outcomes contributed to their success in this effort.

Based on our team’s research and interviews, this report captures the current status of administrative operational metrics at the University and articulates the increased value that implementing administrative operational metrics will bring to the University. In addition, we have developed an implementation plan that we believe will be sustainable for years to come.
Most of the leaders that we interviewed stated in some form that in order to implement administrative operational metrics, the University and its employees must undergo a change in behavior. Leadership and employees should clearly understand the concept of metrics and the value that it brings to their work. Their work should be aligned to help the University achieve its goal of being a top three public research institution in the world and best among its peers in administrative operations. Several of our interviewees said that without a radical change to “business as usual,” administrative operational metrics will be seen as another “fad” that will not be sustainable for the good of the University.

John Kotter, the world’s foremost authority on leadership and change, has identified eight critical success factors to leading change (see Diagram B). For example, one factor he stresses is that for any change initiative to be successful, leadership needs to present a single voice to the community about the importance of the change. Implementing administrative operational metrics can be a dynamic shift in culture. It is important, then, that the implementation of administrative operational metrics be embraced by all leadership, and that they consistently send messages about the value of metrics for evaluating administrative efficiencies. Knowing and using Kotter’s change principles will help achieve successful implementation of administrative metrics.

Diagram B: Kotter’s Change Principles
As noted by John Kotter, a key to leading change is effective communication. Using the value of metrics to improve processes and gain efficiencies at the University, employees will begin to understand the concept and the role they play in the process. Employees should be part of the metric process within their individual units to ensure accountability and performance improvement by all staff. Eventually management processes for each unit could be tied to individual employee performance and metric measures within their unit. Examples of helpful communication strategies identified by the literature and interview participants for this report follow.

- Communication should be done in a new way so it feels different to employees.
- Common language should be defined so it can be socialized at all levels of the University.
- A formal strategic communication plan should be developed using upper- and mid-level leaders to introduce the process and garner the expected cooperation from employees.
- Meaningful examples of how the success of implementing metrics in management processes outweighs the failures should be conveyed through regular communication at all levels of the University.
- Leadership should talk about the project early and often; and be as open as possible to minimize resistance.
- All members of the University should know that there is no one “tried and true” channel of communication.
- University Relations should help lead the strategic communication.
- Mid-level leaders need to be part of any communication strategy.
- The foundation for a successful start should be set with a well orchestrated communication campaign that encourages employee engagement, the willingness to allow time for reflection and feedback, and the willingness to make adjustments along the way.
- Terminology should be in an academic, not a business, context.

**Guiding Principle**

**Strategic Communication**

“Communication is critical in creating and articulating vision, channeling feedback between implementers, key decision-makers, and key users; providing social support, forestalling or making constructive use of resistance, and assessing and promoting results” (Lewis, 2006, p. 26).
Training Implementation Strategies

Training is a crucial step in the implementation of a new process and should not be overlooked. The effort spent in training staff will ensure a viable and sustainable administrative operational metrics process. The University is rich in knowledge and this knowledge should be tapped to develop the training that unit leaders, managers and employees will need to be successful. The following key points to consider when developing training for administrative metrics were identified from prominent literature:

- create a basic metrics tutorial to broaden employee understanding of metrics and its value in measuring performance in a unit,
- create change management strategies to change the University culture to a “culture of evidence” that uses metrics for decision making,
- train the designated staff in order to ensure their understanding of metric usage and the impact of using metrics for evidence-based decision making,
- establish diverse staff work groups within units to identify “unit specific” measures within their area, and
- train employees to use input from open forum meetings to:
  - gather suggestions on creative improvement strategies
  - get all employees excited about the process; and
  - ensure all employees have a voice in contributing to the metric project.

If the decision is made to implement administrative operational metrics in academic units, it will be important to engage faculty and staff in the integration of metrics into management processes. Faculty should be included in the process to help them understand the benefits of administrative operational metrics and their role in achieving administrative effectiveness.

Guiding Principle

Staff Development

“Work planning, performance assessment, feedback, coaching and employee training form a strong basis for the enterprise to maintain or enhance competitive advantage and increase the probability for goal attainment” (What Gets Measured Gets Managed, p. 2).
Overview of Research Methods

In October 2007, our team met with project sponsor, Steve Cawley, and project leaders, Meredith Fox and Bernard Gulachek, to learn about the project and its scope.

During the course of our project work, our team used several methods to research implementation strategies for the evaluation of administrative performance of key management functions at the University of Minnesota. We conducted an extensive literature review and set up a project portal to serve as a depository for data collection and pertinent literature findings. An annotated bibliography of our literature review can be found in Appendix D. We reviewed best practices in other universities and within the University of Minnesota. Our team met weekly; and we regularly consulted with our project leaders. We also sought the support of the PEL program coordinator, David Dorman. We attended the PEL training programs and capitalized on every opportunity to apply new found knowledge along with our prior education and experience to enhance our project.

Our research included review and dialogue with members of the peer and aspirational higher education institutions to uncover best practices in academia (see Appendix E). We interviewed the Chief Strategic Operations Officer of Rochester Community and Technical College to understand the metrics system which was recently implemented with early success.

We interviewed several members of the executive administrative team and leaders in units who have implemented or are in the process of implementing a metric based evaluation process (see Appendix F and Appendix G). We uncovered valuable information that helped inform our recommendations for implementing University wide administrative operational metrics.

We conducted an analysis of critical factors for implementing metrics and how the metrics project would align with the current and future state of the University. Our team synthesized the data from research, interviews, and team analysis to articulate our findings for this report.
Our literature review included an in-depth review of noted researchers and professionals in the area of analytic metrics, implementation, communication strategies, and the cultural behavior change required to ensure success.

**Peer Institutions**

- Ohio State University – Columbus
- Pennsylvania State University – University Park
- University of California – Berkeley
- University of California – Los Angeles
- University of California – San Diego
- University of Florida – Gainesville
- University of Illinois – Urbana-Champaign
- University of Michigan – Ann Arbor
- University of Texas – Austin
- University of Washington – Seattle
- University of Wisconsin – Madison

Our team was committed to identifying an implementation plan that would be sustainable long after our project ended. After months of research, analysis, and evaluation, we developed a plan that we believe will be easy to implement, add value to units for measuring and evaluating performance, allocate resources and improve decision making, and be sustainable for years to come. Most importantly, this work is linked to the University’s mission and goals and supports the prescribed direction to increase accountability.
Although there is no integrated, operationalized University-wide system to measure key administrative management functions, there is significant work being done within individual units across the University. Efforts are underway from several corners of the University community on multiple campuses that seek to optimize and improve the operational effectiveness and efficiency of administrative services. These efforts range from Facilities Management tracking key operational indicators to the Office of Classroom Management assessing service and occupancy levels of University classrooms. In addition the University of Minnesota, Duluth has been working to improve student retention and graduation rates using a system with heavy emphasis on measurement and metrics.

Facilities Management’s effort provides a strong example of evidence-based decision making. Their team approach to defining metrics shifted their culture from a relationship-based to an evidence-based culture for decision making. Their actions resulted in a more collaborative and participative culture. In many cases, a structured, disciplined approach has been assumed by units that have implemented administrative operational metrics. Beginning with defining the mission, vision, values, and strategic themes, a strong foundation is built from which to define and implement meaningful metrics. This seems to be a common theme for units that have enjoyed significant progress toward implementing their own administrative metrics process.

While the University has not implemented administrative operational metrics across the Institution, many of the necessary pieces are either in place or are being assembled to enable a successful robust implementation that is sustainable. A key element of success already in place is the active support of University leadership for the need to adopt a more evidence-based culture of decision making. This has brought about an increased emphasis on identifying the necessary assets, systems, processes, and structures that enable successfully implementing administrative operational metrics.

There are two general categories of metrics being pursued by the University; each has both an internal and external scope. One category relates to strategic goals, the other relates to operational goals. These metrics are defined as follows.
**Strategic metrics** are indicators that provide insight into the following question: *How are we doing with regard to our articulated goals and strategic plan?*

**Operational metrics** are indicators that provide insight into the question: *How are we doing with regard to the quality, efficiency and satisfaction with services we provide to the University and the external community?*

We believe that the implementation of administrative operational metrics will provide organizational alignment, evidence-based decision making for prioritizing initiatives, active data management, and will facilitate the sharing of best practices across the University.

Our team has conducted a qualitative analysis of the University and has created a graphic description to articulate our view of the University’s status before and after the implementation of administrative operational metrics (see Appendix H).

Through the implementation of administrative operational metrics within Academic Analytics, the University will gain higher standards for accountability and transparency throughout the University.

**Analysis of Critical Factors for Successful Implementation**

This analysis of the University’s position with critical factors for successful implementation at the University of Minnesota is based solely on the PEL team’s interpretation of the current status of the University following interviews and literature reviews of best practices.

Our team used various methods for analyzing the critical factors for successful implementation of administrative operational metrics. We read various prominent articles and books in the field of analytic metrics and processes. Through research, interviews, and discussions, a list of common themes that contribute to a successful implementation of metric processes was developed.
We have created a graphic of the PEL team’s analysis of the University’s position with critical factors for successful implementation (see Appendix I). The units listed in the graphic are examples the team has knowledge of within the University that illustrate practices which may be leveraged.

During weekly meetings, the team discussed and agreed upon the factors of success to include in the analysis. After identifying the twenty-six most critical factors, according to themes from the literature and our interviews, a value was assigned to each factor.

The values indicated how influential the factor would be, given its current state, if administrative operational metrics were implemented.

For most of the factors, the team unanimously agreed upon the values assigned. If a team member disagreed, the value with the majority of votes was chosen after a lengthy discussion. Because of organizational changes and new developments with the administrative metrics processes at the University, the team conducted a group analysis of the factors on several occasions and changed values as appropriate, using the same process during each group analysis.

Values associated with each factor indicate how strongly each factor is represented or developed at the University according to our team’s analysis at a given time. A value of “one” indicates a factor that can significantly hinder the implementation process of administrative operational metrics and that the factor needs much development. A value of “ten” indicates a factor that is already well developed and can significantly benefit the implementation process. All factors, in our team’s opinion, should be developed to a rating of ten because of the critical importance that each factor has to the success of the implementation process.

**Institutional Levers**
Because of the many competent, caring, and skilled leaders who have implemented practices of administrative metrics in their own areas, the University is privileged to draw from these experiences and processes when implementing administrative operational metrics. Examples of such areas that are practicing administrative metrics include:

- Audits
- Facilities Management
- Office of Classroom Management
Additionally, the University can rely on the expert knowledge from staff in many units and offices across the University that foster organizational excellence. A partial list includes:

- Office of Planning
- Office of Institutional Compliance
- Office of Service and Continuous Improvement
- Organizational Effectiveness
- University Relations
- Office of Institutional Research
- Office of Measurement Services

**Capacity to Implement Administrative Metrics**

The University’s capacity to implement administrative operational metrics is influenced by the extent to which existing metrics progress in units can be leveraged as well as the level of buy-in from the units most impacted by its implementation. High level sponsorship and support from impacted units will go a long way toward minimizing the resources required to implement this system. However, a University-wide implementation of the administrative operational metrics system will require dedicated resources and attention in order for it to become a reality.

The system will require:

- Infrastructure development (hardware, software, databases, user interfaces, and other IT related items)
- Instrument development (surveys, visual tool, such as a dashboard or balanced scorecard, etc.)
- Coordination and leadership— at a central level and from each major management function
- Ongoing coordination, management, and training

Existing assets could be leveraged to meet many ongoing operational resource needs. The following units have capacity that could be leveraged for administrative operational metrics:
If the combined capacity of the above units is used to meet the needs of administrative operational metrics, the cost of full implementation would be substantially less than if the needed capacity was created as a new function or office. University leadership must ensure that appropriate resources are provided and/or assigned to ensure ongoing success of this administrative operational metrics system.

**Technology for Flexibility and Transparency**

Determining the type of software technology to use within an organization can be difficult, yet it plays an important role in the success of a metric system. A comprehensive approach is important in determining the development of the visual tool (such as a balanced scorecard), ease of software use, and the program support available. Once the administrative operational metric system is endorsed and processes are put into place, University IT staff can support units by determining software needs and unit reporting capabilities.

Several types of software exist to support implementation of metrics at the University.

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<th>Software type</th>
<th>Benefits</th>
<th>Disadvantages</th>
<th>Examples</th>
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<tr>
<td>In-house (usually an Excel or Access program)</td>
<td>Relatively quick, flexible and inexpensive; could be customized by users</td>
<td>Scalability, if too complex—difficult to maintain and ensure accuracy</td>
<td>Facilities Management scorecard, OCM dashboard</td>
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<td>Stand alone (usually a web-based internal portal)</td>
<td>Designed to support metric systems from start to finish</td>
<td>Designed in a generic structure and cannot be customized</td>
<td>Active Strategy Enterprise, Balanced Scorecard System, Cognoa, CORDA, Host, PM—Express</td>
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<tr>
<td>Software type</td>
<td>Benefits</td>
<td>Disadvantages</td>
<td>Examples</td>
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<td>Data Warehouse</td>
<td>Ability to retrieve, analyze and store vast amounts of data; search patterns, present data in comprehensive format</td>
<td>Inflexible and slow to implement, could impact other production systems</td>
<td>Data used to populate local data driven email systems to communicate with the University or College community</td>
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<td>Add-on to Enterprise Resource Planning systems</td>
<td>Possible integration into existing ERP system</td>
<td>Cost may be prohibitive</td>
<td>Using a single database to integrate human resources, financial and student data</td>
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<td>Process Management systems</td>
<td>Designed to analyze process efficiencies</td>
<td>Coding errors could create errant data</td>
<td>Redesign processes for payroll entry to streamline the overall process and eliminate errors</td>
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Typically, organizations develop their own databases using either Excel or Access before purchasing any standard packages off the shelf. Displaying the data on a comprehensive dashboard is also critical (see Appendix J). There are several different balanced scorecard software packages available which may help streamline the data structure process (see Appendix K).
Based on the PEL team’s significant findings, we have defined a comprehensive methodology to implement administrative operational metrics that are:

- embedded in a collaborative structure
- anchored in management processes
- integrated into a reporting tool for transparency and flexibility
- implemented in collaborative, reflective phases

This section defines our implementation plan which will provide the University with a wealth of benefits, including a single enterprise view of the University’s overall administrative operational effectiveness in key management functions, evidence-based decision making for strategic planning, and prioritization of current and new initiatives. Our plan also allows the opportunity to create organizational alignment between data management and resource use. Performance of key University management functions can be evaluated at both the University and unit levels. Most importantly, in this plan, transparency, decision making, and accountability create a culture of evidence at the University, and will improve its management functions, service levels, and management of both financial and human resources. For more in-depth analysis of the benefits of integrating administrative operational metrics into central administrative units and ultimately all key management functions at the University please see Significant Findings and Appendix H.

Recent changes in the organizational structure present a prime opportunity to begin a consistent and uniformed implementation of administrative operational metrics. The University is poised to implement Academic Analytics of which administrative operational metrics are a part. Resources should be leveraged to implement both simultaneously. The University’s culture and climate is ready to implement administrative operational metrics, and it is motivated for several reasons:

- difficult financial times are stimulating the need for additional cost saving measures,
- evidence-based decision making and accountability is critical to justify the University’s stewardship of resources to external resource providers,
- infrastructure changes cause some management process changes that can incorporate metrics into the process,
benefits of engaging staff will help to keep morale high and support the “we are all in this together” mentality.

**Recommendation One: Embedded in a Collaborative Structure**

The implementation of administrative operational metrics should be linked directly to the University’s mission and goals and to the overall metrics system. There are key leadership behaviors, institutional values, cultural characteristics, and principles of accountability that all contribute to successful implementation (see Appendix L).

**Proposed Collaborative Structure**

We have developed a collaborative structure which will provide the foundational infrastructure of support needed to implement administrative operational metrics. In addition, we have created a process flow model to illustrate how the members of that structure would function within the University’s metrics structure. The structure includes Steering Committees and Work Groups which would interact with the user groups and the Process Owner (see Appendix M and Appendix N).

The structure, including its members and their roles, responsibilities, and interactions with each other, are described below. The intent is to align each of the members or roles with one or more of the implementation phases.

1. **Aligning Policies, Procedures and Resources (Vision, Planning and Policy Setting)** – President and Senior Vice Presidents (Executive level) set the general direction and clear any obstacles to moving forward

2. **Building Infrastructure (Development/Capacity Building)** – The Working Group acts to develop the necessary infrastructure with oversight by the Process Owner

3. **Trial Implementation (Deployment)** – Central administrative units leverage the capacity created in the previous phase to collect and evaluate metrics data through the systems and processes. Initial integration of information from administrative operational metrics source systems into decision making processes via existing management processes.
4. **Full Integration and Assessment (Evaluation)** – University community integrates administrative operational metrics into management processes; followed by determining how well administrative operational metrics is working and if any changes need to be made. Includes a period of reflection and feedback on vision and policy setting, and possibly, the cycle will be repeated.

**President and Senior Vice Presidents**  
(Executive level)

- High level sponsors of the project
- Secure resources for the project and provides high level support
- Offer high level approval of strategic efforts
- Identify Process Owner and endorse unit mission and project plan
- Approve recommendations of policies and guiding principles
- Interface with the Process Owner on policies and strategies

**Steering Committee**  
(Administrative Vice Presidents, Chair of Twin Cities Deans group)

- Provides vision and general direction to the Process Owner
- Provides general oversight and approval of the execution of overall strategy
- Endorses University-wide policies and guidelines developed by the Process Owner
- Interfaces with the Executive level as needed to advance the process
- Held accountable for strategic results
- Acts as liaison to the Process Owner to provide general oversight and political support to implement broader administrative operational metrics within the metrics structure

**Process Owner**  
(Office of Planning)

- Is responsible for implementing metrics, overseeing the project, and executing the overall project plan
- Develops University-wide policies and guidelines in consultation with the Steering Committee
- Develops a shared vision of the project plan in consultation with the Steering Committee, Users, and Working Group
- Is responsible for the project management function
- Ensures all units are participating when scheduled to implement
• Identifies resources needed (financial, human, systems, etc.)
• Identifies key resources to help administrative and academic units implement metrics
• Determines training needs and coordinates efforts with resources
• Is single point of contact for University-level data system issues
• Acts as the University data custodian for administrative operational metrics
• Oversees and directs the efforts of the Working Group
• Coordinates report generation to all Users
• Provides data analysis and suggestions for improvement upon request

**Working Group**
(University level, members include: OIT, OSCI, OMS, IMS, OIR; members could change as needed to help drive the process; could function as consultants to core group members)

1. Building Infrastructure (Capacity building startup phase)
   • Works at the direction of the Process Owner to implement administrative metrics
   • At the direction of the Process Owner coordinates and performs the work to:
     o Develop the IT infrastructure
     o Develop the data collection instruments
     o Develop and deliver training and related resources
     o Define and develop core processes
   • Helps identify the financial resources needed
   • Ensures consistency in implementation of reporting and in resource use across the University
   • Identifies the key measures used consistently across the University to enable administrative metrics to “roll up” to the University level
   • Technical people and subject matter experts (OIT, HR, OMS, OSCI) who understand metrics and know the functional requirements
   • Maintains data systems for all levels within the University
   • At the unit level, is responsible for data analysis of metrics and ensuring accuracy of the data

2. Trial Implementation Phase (Enhancement)
   • Works at the direction of the Process Owner to implement administrative operational metrics
   • Works with subject matter experts for ongoing consultation
   • Deliver training and related resources as needed
   • Coordinates and performs the work to review and enhance:
     o the IT infrastructure
     o the data collection instruments
     o core processes
     o control quality of metrics

3. The Workforce
   • Acts as consultants to perform the work of the project
• Is borrowed from other existing units at the University
• Is brought in to perform a specific task and return to their home unit when task is complete
• Has specific skills needed and acts as subject matter or technical experts
• Is used on an as needed basis

**Users**
(Senior leaders, administrative vice presidents, unit leaders, other functional leads and analysts)

1. Senior Leaders
   • Integrate administrative metrics into their key management processes and set expectations for use by those who report to them
   • Leverage the use of metrics for evidence-based decision making
   • Determine courses of action in the form of updated or new initiatives to reach operational and strategic goals
   • Determine new metrics where necessary based on objectives and goals

2. Administrative Vice Presidents
   • Integrate administrative metrics into key management processes and set expectations for use by those who report to them
   • Determine courses of action in the form of updated or new initiatives to reach operational and strategic goals
   • Determine new metrics where necessary based on objectives and goals
   • Participate in identifying additional measures within administrative and academic units unique or pertinent to their unit
   • Utilize administrative operational metrics in rate setting, business plans, and annual discussions with deans and unit heads related to service levels

3. Unit Heads and Deans
   • Integrate administrative metrics into key management processes and set expectations for use by those who report to them
   • Integrate metrics into management process for their own unit
   • Use metrics for evidence-based decision making
   • Participate in identifying additional measures within administrative and academic units unique or pertinent to their unit
   • Determine courses of action in the form of updated or new initiatives to reach operational and strategic goals
   • Determine new unit metrics where necessary based on objectives and goals
   • Utilize administrative operational metrics in annual discussions with management functional leads (administrative vice presidents)
4. Functional Leads and Analysts
   - Run and analyze reports to determine overall performance as well as performance of individual unit initiatives
   - Assess unit performance based on metrics indicators
   - Recommend courses of action in the form of updated or new initiatives to reach operational and strategic goals
   - Recommend new unit metrics where necessary based on objectives and goals

Administrative operational metrics are just one piece of the University’s metrics structure and should be implemented so it supports and aligns with University efforts to drive its mission, achieve its goals, and measure its performance.

Much like the University is striving to reposition itself as one of the “top three public research institutions in the world,” its goal for administrative operations is: “In support of the academic enterprise, administrative operations will be best among our peers, focused on service, and driven by results” (Administrative Service and Productivity Steering Committee Report – 2007).

**Identifying a Workable Sustainable Funding Model**

Without conducting an in-depth analysis of costs related to the implementation it is difficult to determine the amount of funds needed to successfully implement administrative operational metrics. We believe senior leaders should consider funding from several sources, including:

- President’s strategic re-investment pool,
- reallocation from other units,
- raising the priority of implementing administrative operational metrics in the University’s strategic initiatives and repositioning existing staff, and
- new money for new initiatives.

These funds would be used for staff, consulting services, systems development, process improvements and systems enhancement. There would likely be greater need for funds in the early phases of the lifecycle due to developing infrastructure and capacity.

According to some of the administrators we interviewed, the preferred approach in resourcing the move to administrative operational metrics is to identify existing staff in units and move them into key roles to execute the plan. In some cases, this would mean building a temporary virtual work group assembled to complete specific project requirements or tasks. At the completion of each phase, some staff may have completed their tasks for the project and leave the virtual team, while others may be added until implementation is complete. At the implementation phase, the virtual work group would be used on an as needed basis to make changes or enhancements. In most cases, the needed talent already exists at the
University, so the ability to move staff around to areas of high priority is critical for this approach to work.

The budget below reflects a general estimate of the resources needed to staff an office that would be responsible as the “process owner” for implementing administrative operational metrics and advancing this agenda. The staff-related resources shown below could be leveraged to implement academic analytics as well other initiatives. The general unit support budget includes professional development, travel, and other general office expenses. This estimated budget would support the core office operations only and does not include any specific program related costs.

The intent of the program budget section is to outline the main categories of investment related to building the capacity needed to implement administrative operational metrics. As stated above, most of these resources already exist in other units and can be used in a consulting relationship to meet the start-up and the ongoing needs of the process owner.

It should be noted that these figures are only estimates and include assumptions for leveraging existing staff from other units to deliver the necessary services and systems for successfully implementing administrative operational metrics.

Office of Planning
1. Personnel
   - Unit head (VP level) .25 FTE
   - Support staff .50 FTE
   - Program coordinator .50 FTE
   - Program associate(s) .25 FTE
   **1.50 FTEs**

2. General unit support budget (professional development, travel, and other general office expenses)

3. Program budget (Administrative Operational Metrics)
   - IT infrastructure development
   - Data collection and reporting capacity building
   - Survey instrument development
   - Training development and delivery
   - Subject matter experts (consulting)
   - Other consulting and development expenses

Working Group
Section three above (Program budget) under the Office of Planning represents the categories of investment needed for successful
implementation of administrative operational metrics. The purpose of the working group is to execute the project plan at the direction of the process owner (see Appendix M). This is the group responsible for developing the infrastructure and capacity needed to implement and sustain administrative operational metrics. A detailed description of the roles and responsibilities of this group are defined below.

Unit Staff
We estimate that a central administrative unit that provides a University management function would need a .10 FTE to provide a single point of contact to act as chief analyst, coordinator, and reporter to the Office of Planning for the administrative operational metrics of their management function.

Functional areas:
- information technology
- communications and marketing
- human resources
- facilities
- finance
- research administration

Recommendation Two: Anchored in Management Processes

The use of administrative operational metrics must become an inherent part of management processes. We recommend integrating metrics into management processes such as:

- Unit compact reviews
- Unit performance reviews
- Budget processes
- Work plans
- Individual performance reviews

Guiding Principle

Collaboration
“More than anything else, leadership needs to be thought of as a collaborative process for effective, positive social change. And rather than focusing solely on those who hold traditionally recognized positions of leadership, we must broaden our notion of who is a leader, so that many more Americans are empowered and able to lead in the future” (Kellogg Foundation, 2007, p.1).
- Hiring/retention practice
- Professional development
- Succession planning

Administrative operational metrics should be specifically “tied” to an established process with accountability and decision making at high levels. The compact process is one key established process. The purpose of the compact process is to “provide a basis for accountability in evaluating performance.” Tying administrative operational metrics to the compact process would provide an “anchor” for accountability on a regular basis.

The compact process is a defined and well embedded management process at the University. Utilizing administrative operational metrics as a part of this process allows senior leaders and administrative vice presidents to engage in a formal conversation among themselves as well as with unit leaders regarding the performance of management functions. The utilization of administrative operational metrics in these conversations allows for a data-informed discussion about service levels, administrative function performance, and ultimately, work plans and budgets. During these discussions, operational issues impacting metric outcomes, staff development, succession planning, and workforce alignment should be addressed.

Accountability can be instilled in every level of the University by integrating administrative operational metrics into the compact process, the budget process, and work plans of senior leaders, administrative vice presidents, unit leaders, and eventually academic deans. Administrative operational metrics can be viewed as the fuel that enables the University to operate efficiently. These metrics should be used for evidence-based decision making and should be the impetus to create new opportunities for organizational efficiencies.

Ultimately, with future planning, administrative operational metrics could be tied to individual performance reviews. The opportunity is present for succession planning and to develop skills in unit leaders and staff to enhance their managerial skills and broaden their scope of understanding in the use and value of these metrics. Unit staff should be trained in data integrity, collection, and analysis in order to interpret what the metrics mean to the unit and to the University, and to use them appropriately. Staff who possess these skills will be an enriched asset in that they will have abilities to forecast opportunities for improvement, identify trends in performance, and refine appropriate metrics to capture meaningful data to inform decision making (see Appendix O).
The Process Owner in conjunction with the Steering Committee and the Working Group should determine which software will be used for administrative operational metrics. Currently, several units within the University have implemented metrics, but there is not a single source of data collection or a determined software program for metric analysis. It is important to have consensus on the software program and on the visual tool that will be implemented.

With consistent programs, each unit will gather and report data that will align with the University’s visual tool. Individual units will roll their aggregate metrics up to the University-level for metric evaluation of the University’s overall administrative effectiveness.

The University seems to be leaning toward using a “balanced scorecard” to visually describe the administrative state of a unit. Our recommendations will support any visual tool approved by the University, as long as it is consistently used by all units. Some units will require adjustment to align with the University identified visual tool.

The reporting tool should be defined and standardized across the University. It is important that the tool provide flexibility for units to modify a version of it for their own use. More importantly, the tool needs to be transparent so the performance indicators and targets are visible to the University community. Creating a culture of transparency will drive the culture of accountability to new levels.

**Assets and Uses of Analytics**

According to Thomas Davenport and Jeanne Harris (2007) in their book, *Competing on Analytics: The New Science of Winning*, analytics refers to the “extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions” (p. 7). Davenport and Harris wrote, “Analytics are a subset of what has come to be called business intelligence: a set of technologies and processes that use data to understand and analyze business performance” (p. 7). While the focus of this report is on administrative operational metrics, it is important to understand how the tools used fit into a larger context, that is, analytics and business intelligence.

Whether the topic is analytics or business intelligence, there is a set of generally accepted assets or approaches that are used to answer a range of strategic and operational questions. Based on the literature by Davenport and Harris and the PEL team’s knowledge, the table below contains a list of assets or approaches that are commonly used in answering these questions. In addition to each asset/approach, there is a brief description of both the level of question addressed and when it should be used.
At the most basic level, standard reporting seeks to answer an operational question, such as, “How many students are enrolled in a given unit for a given term?” Or the reporting may show the ending account balance for a given period. This section is focused on assessment and reporting using standard reporting through balanced scorecards. These approaches assist in determining what will happen and what the desired outcome may be as the focus is on the future and a forward thinking view.

All twelve assets or approaches in the table are necessary to answer the full range of questions leaders are faced with on a continual basis.

<table>
<thead>
<tr>
<th>Asset/Approach</th>
<th>Level of Question Addressed</th>
<th>When to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actionable insight</td>
<td>Where should we invest our time and resources?</td>
<td>For strategic decision making</td>
</tr>
<tr>
<td>Ad hoc reports</td>
<td>How many, how often, where?</td>
<td>To answer a specific question for a known problem or condition</td>
</tr>
<tr>
<td>Alerts/triggers</td>
<td>What actions are needed?</td>
<td>Alerts the decision maker that immediate action is required</td>
</tr>
<tr>
<td>Dashboards</td>
<td>Are we on track compared to last year’s performance?</td>
<td>When comparing current performance to an earlier period</td>
</tr>
<tr>
<td>Data mining</td>
<td>What is causing it to happen?</td>
<td>For determining the best course of action</td>
</tr>
<tr>
<td>Forecasting/extrapolation</td>
<td>What if the trends continue?</td>
<td>For determining what will happen next based on a given trend</td>
</tr>
<tr>
<td>Optimization</td>
<td>What is the best that can happen?</td>
<td>Deciding how to improve or in which direction to go</td>
</tr>
<tr>
<td>Predictive modeling</td>
<td>What will happen next?</td>
<td>For estimation models based on a complex set of variables</td>
</tr>
<tr>
<td>Query/drill down</td>
<td>Where exactly is the problem?</td>
<td>Reactive way of determining where the problem is</td>
</tr>
<tr>
<td>Scorecards</td>
<td>Where are we in relation to our goals?</td>
<td>Determines where we are in relation to strategic and operational goals</td>
</tr>
<tr>
<td>Standard reports</td>
<td>What happened?</td>
<td>To show basic quantities and for list reporting</td>
</tr>
<tr>
<td>Statistical analysis</td>
<td>Why is this happening?</td>
<td>Identifying the factors causing the problem or condition</td>
</tr>
</tbody>
</table>
The intent of the above table is to illustrate the many assets and/or approaches needed to address the scope and breadth of questions and issues the University faces on a regular basis related to analytical capacity. It also shows the types of capacity needed for the University to be able to respond to challenging and changing circumstances. Administrative operational metrics and the approaches used to assess performance and drive improvement are critically important for many reasons, none more obvious than the point Davenport and Harris make, “At a time when companies in many industries offer similar products and use comparable technology, high-performance business processes are among the last remaining points of differentiation” (p. 8). While the University is not currently known for high producing business processes, there certainly is an advantage to becoming known for business process improvements and administrative efficiencies. Administrative operational metrics will provide the University with that visibility (see Appendix J).

**Recommendation Four: Implemented in Collaborative, Reflective Phases**

We recommend that initially administrative operational metrics be implemented in central administrative units and tied to University management functions such as information technology, human resources, communications and marketing, facilities, finance, and research administration. The term “management function” is used to describe a central administrative unit plus the resources (staff and otherwise) devoted to that particular administrative function as it marbles into the University. Metrics should provide a clear picture of the “state of the unit” and ultimately “state of the management function.” These metrics will collectively create the University’s overall “scorecard” of its administrative operational effectiveness.

Implementing administrative operational metrics will not be a simple task. It will take planning and development, yet the University is rich in the knowledge and human resources needed to actualize the implementation. As with any new process, providing the financial resources, developing the proper infrastructure, assigning appropriate accountabilities, communicating the process, and engaging the people are vital to its success.

The implementation of administrative operational metrics should be considered a long-term initiative and a phased-in plan is recommended. There will be several phases to complete at the University level, which we labeled “University-Level Responsibilities.” Our team has not defined the timeline of each phase, but defers that responsibility to those charged with implementation. The phases may not be equal time periods as each phase is unique. The phases will include creating a collaborative administrative operational metrics structure and building the data infrastructure and gradually incorporating administrative operational
metrics into management processes throughout the University. Implementation would begin with central administrative units measuring their own performance. Future phases would ask those central administrative units to take leadership for measuring the entirety of their management function as it marbles into the University.

For units within the University, we have identified three parts under “Unit-Level Responsibilities,” with separate processes for implementation. In addition, each unit will get a “scorecard” of its performance of administrative functions in their unit. During the assessment phase units will increase their awareness of and use of the data for improving operational efficiencies. We believe this implementation plan could be used to implement administrative operational metrics at coordinate campuses as well (see Appendix P).

**University-Level Responsibilities**

*Phase One*

Phase One is the *Aligning Policies, Procedures, and Resources* phase, where the foundational work is performed. Once the University has agreed to implement administrative operational metrics, the work can begin at the University level for vision setting, planning, and policy setting. Thoughtfully planning and developing the culture to prepare for this new process will build the foundation for success.

At the University level, preliminary work shall be initiated and the Collaborative Administrative Operational Metrics Structure described earlier should be endorsed to implement and sustain this new management process. In addition, there should be an analysis of appropriate financial resources needed to implement this process and resources should be dedicated to ensure that the process can be financially supported, implemented, and sustained.

Human and IT resources necessary to support this new management process should be identified and dedicated to operationalize the administrative operational metrics structure. Many experts exist within the University who can address all facets of the implementation plan, and their expertise will help lead this effort.

University-wide standard metrics for key measures should be established to ensure all units are reporting the same metrics. The University Administrative Team has already developed University-wide metrics for the areas of:

- Service quality
- Productivity
- Continuous improvement/innovation
- Employee engagement
These four areas are the basis on which the University’s administrative operational performance will be measured. The University Administrative Team’s work should be adopted, or a process should be initiated to determine standard questions and metrics that will be collected on key management functions within the University.

A data infrastructure with primary data sources must be defined and in place for units to access and capture the data. During this first phase, there should be:

- an evaluation of existing data resources,
- standards created for ensuring data integrity, and
- IT tools secured to collect and report the data.

Policies and guidelines should be defined and approved related to administrative operational metrics. The common language of metrics should be defined so it can be socialized at all levels of the University to ensure an understanding of what metrics are and how they will be used in University related work.

An analysis of internal and external stakeholder needs should be conducted to identify if stakeholders’ needs can be met if administrative operational metrics are implemented.

**Phase Two**

Phase One is the foundational phase and Phase Two is the *Building Infrastructure* phase. This second phase should also allow for a period of reflection and feedback on the foundational development of administrative operational metrics.

A key step to develop early in the process is to provide clear communication to the University community about administrative operational metrics, their value, and how they will be integrated into employee and unit work. Only a small group within the University has been exposed to administrative operational metrics, so a common language and its meaning should be socialized to the University community.

In order to get early support, we recommend developing a comprehensive communication plan that is different than any other plan used before. It is important to create the feeling that “this is different” from other initiatives. It will also be important to articulate how the long-term benefits outweigh any early failures in this process. Engaging employees, by asking for their constructive feedback, will help gain their early support.

Most importantly, we recommend communicating early and often to keep administrative operational metrics on people’s mind and work agendas. Introducing administrative operational metrics to the University community and then having little or no communication will surely deflate any energy gained at the beginning. Consider creating a Web site or a
dashboard to familiarize staff with reporting tools and to obtain updates on implementation progress. Distribute regular updates to the entire community and consider creating a feedback link for people to provide comments about the administrative operational metrics process. Controlling rumors and resolving issues will create a clearer path to success.

During this phase the infrastructure and processes should be defined, created and tested. A review of the data resources and the standards of data integrity should occur to ensure the reporting data is valid. Again, this is a time for reflection and feedback before the process is implemented. It will be important that this reflective and feedback approach is supported throughout all future phases of the process.

Senior leaders should review and discuss the already established *University’s Criteria for Decision Making* (see Appendix Q) to determine how management can use metrics for decision making. We also suggest that the University create a model of how management can integrate metrics into management processes, in particular, the compact and budget processes. Administrative operational metrics should be applied to key management functions that include information technology, human resources, communications and marketing, facilities, finance, and research administration.

Developing a training plan to arm employees with the skills necessary to deliver accurate and meaningful metrics is a significant component of this implementation. All levels of University leaders may benefit from learning new ways to use metrics for evidence-based decision making and accountability. Continuity in training will ensure the “same message” is shared with all staff, and the University will reap the benefits of the new skills developed for metrics, and provide employees with skills which are transferrable to other functions within their scope of responsibilities.

Investigate the option of creating online training modules for skill building to minimize the resources needed to deliver classroom training for a large number of staff. The goal must focus on skill building and preparing people for:

- implementation of metrics into known management processes
- evidence-based decision making
- creating and identifying metrics
- analyzing data
- generating reports
- creating visual tools for units (balanced scorecard or dashboard)

Developing skills in data analysis and metrics management are vital to the foundation of this plan. An analysis of resources currently available to develop and lead staff training will help determine the University’s financial cost for needed resources and best use of existing resources for this implementation.
Phase Three

Phase Three begins the Trial Implementation of administrative operational metrics. All of the foundational and developmental work will be exercised in this phase.

Central administrative units will initially measure their performance in the four key areas. Standard questions should be used across the University. For example, during this phase, the Office of Human Resources would ask:

“How is the Office of Human Resources (OHR) performing in the areas of:
- Service quality
- Productivity
- Continuous improvement/innovation
- Employee engagement?”

The following reporting period, human resources would expand its metric analysis to measure the performance of the entire human resources function at the University level as it marbles into the University by asking the question:

“How well is human resources performing in each college/unit (marbling concept) in the areas of:
- Service quality
- Productivity
- Continuous improvement/innovation
- Employee engagement?”

The use of standard questions for the key areas will allow for the evaluation of a central administrative unit’s performance as a leader of their management function, as well as the performance of each management function within University units, including colleges. Aggregated, these measures will provide a view of how administrative operations are performing overall, how each management function is performing overall, and how each management function is performing within colleges and units.

During this phase, metrics should be slowly integrated into management processes. There should be ongoing training and support for this integration including staff development and continued focus on building the infrastructure of the administrative operational metric system.

University level discussions should focus on how metrics are being integrated into unit management processes. All leadership within the University should recognize that this is a learning stage for using metrics and integrating them into evidence-based decision making. A review of
the previously established metric implementation guidelines may help to identify issues in transitioning to this new analysis process.

For example, during the compact and/or budget process meeting, senior leaders should engage in a formal conversation with their administrative vice presidents about how their unit is performing in the four key areas. The discussion should also focus on how metrics have been integrated into unit management processes and future strategic plans. The work plan should include an articulated plan for future initiatives that enhance organizational effectiveness. During this period, the same focused discussion on metric integration and strategic work plans should be held by administrative vice presidents with the unit leaders in their areas of responsibility.

Eventually, senior leaders will hold administrative vice presidents accountable for unit performance, and the administrative vice presidents will hold their associate vice presidents accountable. As data is made available about the performance of management functions in units, administrative vice presidents should start utilizing that data in their rate setting processes as well as in their regular discussions with the leaders of units to which they provide service. Although a culture of evidence is forming, at this phase, senior leaders and administrative vice presidents should realize that metrics and analysis are still being tested by units and should not be used for decision making or accountability of units.

**Phase Four**

This is the *Full Integration and Assessment* period of the new administrative operational metrics processes and unit performance. This phase begins the period of accountability and marks the beginning of formal review of a unit’s performance based on administrative operational metric outcomes. Transparency, accountability, and evidence-based decision making should be fully integrated.

Reflection and feedback continue during this phase as central administrative units review their performance in the four key areas and then expand that review to include how those same functions are performed in other units.

In the example of human resources, the aggregate measures from all units that perform human resource functions would form the metric outcomes at the University level. Central administrative unit leaders of University management functions, such as human resources, should work with other units who perform human resource functions to develop a plan for improving the unit’s performance of those human resource functions.

The same review process used in Phase Three should be repeated in this phase, but with the accountability now being used by senior leaders, who will hold administrative vice presidents accountable for unit and management function performance, and administrative vice presidents will hold their associate vice presidents accountable.
Unit leaders, such as deans, should be prepared to discuss how these administrative operational metrics have been integrated into their unit’s management processes and future strategic plans. By this phase, a culture of evidence has been formed and each unit should be accountable for its performance.

Each unit leader should hold their management team to that same level of accountability. This accountability can cascade throughout the organization to every employee. This process should also be implemented in academic units within their administrative functions. Deans should be held to the same level of accountability as administrative leaders.

Accountability should be consistent across the University, starting with senior leaders and administrative vice presidents, to ensure that evidence-based decision making is actively practiced at all levels of the University.

We recommend the administrative operational metrics process be incorporated into many management processes. Using metrics for identifying areas for improvement will inform unit leaders of their unit’s administrative operational performance. It is most important that unit leaders remain transparent in sharing their unit’s “scores” for thoughtful evaluation of performance. Being willing to show themselves in a true light will motivate others to action and raise the accountability factor. Each person in the University should be a part of the accountability formula for increasing administrative effectiveness.

Also during this phase, the University should conduct an assessment of the implementation to determine the institutional gains and added value based on the implementation of administrative operational metrics within the overall metrics structure.

**Unit Responsibilities**

Unit responsibilities will lag behind University level work in the implementation process as some foundational work will need to be completed before units begin their work.

**Initial Steps**

All unit leadership should recognize that this is a learning stage for using metrics and integrating them into evidence-based decision making.

Although the University-level responsibilities include developing the training for staff, unit leaders should be responsible for evaluating the skills of their staff to determine training needs in data analysis and evidence-based decision making.

Unit leaders should be sure that designated staff receive the appropriate training to enhance their skill set for metric analysis and implementation and should encourage ongoing training as needed. Unit leaders and
managers should discuss decision making processes and how metrics can help to inform decisions.

Units may define and create additional operational and/or strategic metrics pertinent to their unit. In these cases, units would be responsible for ensuring that the data resources are available for unit specific metric data. Metrics with no meaning to a unit will be short-lived and not perceived as credible and valuable for decision making. To ensure the effectiveness of the process, we recommend limiting the overall number of metrics to twelve.

*Metric Implementation*

While central administrative units will be measuring performance at the University level, units will receive performance information about administrative service levels or performance in their unit. For example, based on the work of the University Administrative Team, a unit will know how well the human resource functions are performing in their units in the key areas of:

- *Service quality*
- *Productivity*
- *Continuous improvement/innovation*
- *Employee engagement*

Again, standard questions should be used for all units across the University. The use of standard questions will allow the measurement of how well a unit (including academic units) is performing in these key management functions. These key measures would, in turn, provide a clear view of how well the University is performing overall.

Ensuring staff receive the proper training and encouragement for ongoing training in metric integration and analysis is key to success. Unit leaders require an understanding of what should be measured, how to measure it, and what the data means. Without these key learning steps, the data collected will be meaningless.

Units that implement unit specific optional measures during this time will need to verify the integrity of the data source. Units should evaluate the measures and adjust, as necessary, to ensure they are capturing the appropriate data.

Throughout the year, unit leaders and managers analyze data and prepare strategic work plans with evidence-based decision making. As unit leaders and managers integrate metrics into management processes and decision making, that integration will drive discussion and action in strategic management, resource allocation, and defined work plans for new and continuing initiatives. The integration of metrics will be the foundation of evidence for administrative effectiveness in each unit.
During the implementation process unit leaders will not be held accountable for metric outcomes. Although a culture of evidence is forming, senior leaders and administrative vice presidents should realize that metrics and analysis are still being tested by units and should not be used for decision making or accountability of units.

After Metric Implementation/Assessment

In preparation of the compact and/or budget meeting, unit leaders will review their performance of administrative functions in the defined key areas. The unit leader should prepare a written plan of his/her unit’s strategies for creating future initiatives, improving efficiencies, and increasing fiscal well being in the next year. This plan will be data supported and based on metrics.

Unit level responsibilities mirror some of those required at the University level. By this time a culture of evidence has been formed. During the compact and/or budget process meeting, senior leaders and administrative vice presidents should engage in a formal conversation about metric outcomes of their unit’s performance as well as their management function as it marbles into the University within the four key areas of: service quality, productivity, continuous improvement/innovation, and employee engagement. A similar discussion should occur between administrative vice presidents and unit leaders.

The discussion should also focus on how metrics have been integrated into unit management processes and future strategic plans. The work plan should include an articulated plan for future initiatives enhancing organizational effectiveness.

Accountability should be consistent across the University starting with the senior leaders and administrative vice presidents to ensure that evidence-based decision making is actively practiced at all levels of the University.

In turn, each unit leader should hold their management team to that same level of accountability. This accountability can cascade throughout the organization to every employee. This process can be implemented in academic units within their administrative functions. Deans should be held to the same level of accountability as administrative leaders.

Unit leaders should continue ongoing dialog with managers on how administrative operational metrics have been integrated into management processes. Also, operational issues impacting metric outcomes, staff development, succession planning, and workforce alignment should be discussed.

Implementing administrative operational metrics is never-ending as it is the ongoing sustainability of the administrative metrics process. Metric measures should be reviewed, at least annually, to ensure data collection is germane to the work of the unit and the University.
Accountability and transparency should be the standards by which internal and external stakeholders judge the University’s administrative operational performance. These standards should become a part of each leader’s work behavior. Administrative operational metrics should be embedded into current and future management processes to ensure that the University is operated as efficiently and effectively as possible while still meeting the needs of its constituents.

Financial and human resource allocation should be reviewed annually to maintain an appropriate level of support structure. Many units will not have the analytical staff within their units who are experts in developing and implementing metrics in their unit. The Collaborative Administrative Metrics Structure includes a Process Owner who can coordinate University resources for data management, analysis, and consultation. Designated staff who serve across the University on an “as needed” basis will set the stage for success in units large and small.

With the appropriate infrastructure, financial and human resources, data resources, training, and incorporation into management processes, the University will be positioned to become a top three public research institution and among the leaders in administrative effectiveness and stewardship.

Criteria for Decision Making

The criteria, “... established over the past 20 years at the University, continue to provide a solid framework for such reviews. These seven criteria, taken together as a unified whole, offer useful measures to assess and improve the University” (University’s Criteria for Decision Making).
The resources needed to successfully implement and sustain administrative operational metrics are not clearly defined in the recommendations of this report. The level of detail and rigor needed to generate a robust, sustainable funding model was out of the scope of this project. Time did not allow for the project team to fully investigate the needed funds for all aspects of this project. To create a complete budget picture, the Process Owner will need to charge a project team (through the working groups) to fully develop a funding model for the implementation part of the project.

The PEL team’s project scope focused on administrative operational metrics, so we omitted analysis around the overall structure of Academic Analytics from our research and recommendations. This limitation could cause confusion on how administrative operational metrics fit within the larger picture of Academic Analytics. While the team did create a graphic showing how the Collaborative Administrative Metrics Structure and the Process Flow of Administrative Operational Metrics fit into the Academic Analytics model (see Appendix M and Appendix N), a detailed explanation of Academic Analytics and how administrative operational metrics fit into it was not part of the scope of this project.

Environmental scans that include an internal as well as an external focus are frequently part of research efforts seeking to make significant widespread organizational change. While the PEL team did not conduct a full scan of the environment, a partial environmental scan was done, which included several University-level decision makers as well as other relevant staff. Due to time and resource constraints the PEL team was not able include each and every internal or external party affected by administrative operational metrics.

While there are limitations to the study, the PEL team feels sufficient rigor has been applied to the data gathering stage that has grounded the recommendations section of this report. Further, it is felt that the real and perceived limitations of the study are offset by the level of organizational readiness and overall commitment that currently exists at the University. The momentum that has grown over the course of writing this report is a further example of the University’s collective desire to move this agenda forward. It should be noted that while there is momentum to take the next step with the implementation, there is a real need to address some of the gaps that exist, such as securing the resources to financially support implementing and sustaining administrative operational metrics.
There are several future considerations as administrative operational metrics become operationalized throughout the University. The implications, considerations, and opportunities are far reaching once the systems that support administrative operational metrics are in place and the organizational culture has embraced an evidence-based decision making model. Great potential exists to expand the scope and use of administrative operational metrics, both in who is using them and in how they are used.

After the full integration and assessment phase has been completed, it will be relatively easy to expand the scope to include additional management processes and metrics. Initially it is expected that administrative operational metrics will be anchored to the compact and the budget processes. From there, administrative operational metrics could be integrated into other existing management processes to including performance reviews, hiring and retention, succession planning, and work plans at all levels. The expansion of administrative operational metrics to these other management processes would strengthen the linkage between performance and organizational goals at several levels.

One of the most visible opportunities is for the University to become a role model for service and business innovation. This would not only raise its stature among its peer institutions, but the benefits to the University would be tremendous in terms of effectiveness and efficiency. In a highly competitive environment, which higher education is becoming, one of the last remaining points of differentiation is high-performing business processes according to Davenport and Harris in their book *Competing on Analytics: The New Science of Winning*. Successfully implementing administrative operational metrics allows the University to maintain and improve on well run business processes to make them among the best in higher education.

Changes in leadership behavior will be required to evolve to a culture of evidence that expects clear accountability. Data must be used to drive discussion and, ultimately, the active management of initiatives. Leadership must move beyond the numbers or metrics into what Kaplan and Norton call “initiative management” in their paper titled, *Creating the Office of Strategy Management* (2005). This refers to the active and ongoing oversight of a central body or individual for the purpose of explicit accountability driven by performance.

As the University’s installation of administrative operational metrics matures and expands, an opportunity exists to develop a robust externally facing presence that could be seen by our external constituencies. This linkage to external constituencies offers the possibility to address the accountability issue directly. Offering a resource that shows point-in-time or trend data related to service quality, productivity, continuous
improvement/innovation and employee engagement of administrative functions would go a long way in answering questions of accountability to the University’s external stakeholders.

To take full advantage of the opportunities offered by administrative operational metrics, the University must build a solid foundation that includes the capacity to implement and sustain administrative operational metrics as well as to make the necessary cultural and management shifts required.
Over the past several months, the PEL team has conducted numerous interviews with administrative vice presidents, unit leaders, staff engaged in analytic planning, and practitioners, many of them engaged in various levels of administrative operational metrics implementation. The insight gained here, along with an extensive review of the literature and research conducted over the Web of the University’s peer group of higher educational institutions, have informed the team’s efforts. These sound research methods also contributed to our recommendations and guiding principles for a successful implementation of administrative operational metrics at the University.

If implemented thoughtfully, we feel that the following recommendations would set the foundation for a model program of administrative operational metrics that would move the University to be best among its peers. We recommend administrative operational metrics at the University be:

**Embedded in a collaborative organizational structure**
Stakeholders should help inform the vision, policy, implementation, and assessment of administrative metrics through a coordinating unit and steering committees.

**Anchored in management processes**
Administrative operational metrics should be specifically “tied” to an established process with accountability and decision making at all levels. The compact process, for example, is a key process to consider.

**Integrated into a reporting tool for transparency and flexibility**
Software should allow each unit to gather and report data that will align with the University-level visual tool.

**Implemented in collaborative, reflective phases**
The following guiding principles should influence the execution of each strategy within each phase: strategic communication, collaboration, staff development, transparency, reflection and feedback, and the University’s criteria for decision making.

The importance of successful implementation should not be taken lightly. An understanding of and appreciation for a metrics system are needed at all levels of the University. Walking carefully through an implementation process with clear, consistent principles will aid in its success.
We feel these guiding principles will prove to be extremely beneficial throughout any implementation plan for administrative operational metrics at the University of Minnesota:

**Strategic Communication**
Thoughtful, planned, and relevant communication that addresses the individual concerns of all major stakeholder groups will decrease the impact of organizational myths and increase the political viability of a metrics program.

**Collaboration**
Sharing the responsibility of the discovery, design, development, and deployment of an administrative operational metrics system will shape its relevancy and usefulness and in turn demonstrate its added value throughout the culture of the University.

**Staff Development**
Training and support will not only assist with embedding operational metrics into the units’ daily functions but will demonstrate the University’s commitment to the program.

**Transparency**
Brad Rawlins of Brigham Young University writes, “Organizations that encourage and allow public participation [inside and outside of the organization], share substantial information so their publics can make informed decisions, give balanced reports that hold them accountable, and open themselves up to public scrutiny, are more likely to be trusted” (2008, p. 10).

**Criteria for Decision Making**
Utilizing the University’s established Criteria for Decision Making model early in the implementation of the administrative operational metrics system will help establish an expectation to use the criteria once operational metrics are embedded into the culture.

**Reflection and Feedback**
Consistent and constant feedback loops combined with periods of quietness that allow for organizational adjustment during each implementation phase of a metrics system are vital to its success.

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**Guiding Principle**

**Reflection and Feedback**
Darlyne Bailey, Dean of the College of Education and Human Development at the University of Minnesota, states, “Allowing time for sharing opinions and reflecting on ideas are not only cultural norms and expectations of the University but are also great assets that should be celebrated” (Personal Communication, May 22, 2008).
Bibliography


Appendix A
Project Charter
Opportunity Statement:
Organizational effectiveness is a key contributor to overall organizational success and a hallmark of top universities and colleges around the world. To contribute to the University of Minnesota’s aspirational goal of an exceptional organization, this project seeks to identify best practices to implement and operationalize administrative measures of performance. Successful implementation of this effort will offer valuable insight into many key administrative activities that will drive organizational effectiveness.

Project Benefits:
- Understanding and leverage tangible performance measures
- Recommend consistent processes impacting the entire organization
- Advances an agenda of accountability and a culture of evidence
- Advancing organizational effectiveness by implementation of key measures
- Consistent outcome based measures of administrative processes
- Measures aligned with overall metrics and strategic management systems
- Allows for information based decision making on administrative functions
- Facilitates University wide evidence-based discussions regarding administrative functions
- Provides a foundation for building an exceptional organization
- Facilitates unit compact discussions related to strategic investment

Goal Statement:
To conduct relevant research and develop recommendations to implement and operationalize meaningful and sustainable administrative operational metrics at the University of Minnesota by June 30, 2008.

Project Scope:
The scope of the project included a holistic view of administrative operational metrics that are marbled throughout the University. Specifically the team researched how administrative operational metrics from administrative functions including human resources, information technology, budget and finance, communications and marketing, research administration and facilities could be integrated into existing management processes.

Items/Issues within scope:
- Research best practices of units that have integrated administrative metrics into the decision making process
- Assessment of the past/current practices of unit at the university who are engaged in metrics related processes
- Determine interviews/data to be collected
- Explore/recommend strategies for proper implementation of the administrative operational metrics across the University including coordinate campuses
- Development of a strategy and operational plan that phase in the deployment of administrative operational metrics

Items/Issues outside of scope:
- Determining key performance indicators (KPI) related to administrative metrics
- Creation of the score cards with KPIs
The implementation of the three trial groups (they will implement these groups before our recommendations)

- The creation of a detailed project plan for administrative metrics
- A detailed budget showing specific costs for implementing administrative metrics

**Project Plan:**
- **Define** – This is the define stage involving defining the project charter, problem to be solved, goals, objectives, scope and project plan moving forward. In this phase basic understanding about the project is solidified and subsequent plan defined (October – January)
- **Measure** – During this measurement stage relevant data was collected through a literature review, interviews and other research. The team focused on gathering as much pertinent data about administrative metrics as was available for internal sources as well as from an external peer group (November – March)
- **Analyze** – At this stage the data was reviewed, assembled, organized and qualified so that key themes could be extracted. It was from these key themes recommendations were generated. (March – May)
- **Improve/recommend** – This is the improvement or a recommendation stage where the team creates meaning from the analysis of the data and outlines a plan of action for implementing administrative operational metrics. This was done by taking the key themes identified in the analyze stage and applying an action plan (April – June)
- **Control** – This stage addresses the overall assessment of the changes to determine if they are working. The phase is largely out of scope as the team is making recommendations for implementation and not ongoing assessment of the processes involved in implementing administrative operational metrics.

**Team Selection:**

**PEL Sponsor:**
Steve Cawley, Vice President and Chief Information Officer, OIT

**PEL Project Leaders:**
Meredith Fox, Coordinator of Analytics and Strategic Planning, Office of Planning
Bernard Gulachek, Director of Planning, OIT

**PEL Team:**
Jessica Beyer, Community Program Assistant
Center for Small Towns, Morris
Steve Gillard, Senior Analyst and Information Systems Architect,
College of Food, Agricultural and Natural Resource Sciences
Andy Howe, Coordinator of Student Services,
Office of the Senior Vice President for Academic Affairs and Provost
Julie VanSteenbergen, Assistant to the Head,
Department of Design, Housing and Apparel in the College of Design

**PEL Adviser:**
Dave Dorman
Appendix B
Overview of Academic Analytics and Administrative Metrics
Overview of Academic Analytics and Administrative Operational Metrics

Collaborative Administrative Operational Metrics Structure

Process Flow of Administrative Metrics

Administrative Operational Metrics

Internal
- Administrative Scorecards (productivity, service, improvement, employee engagement)
- Academic Scorecards
Appendix C
Common Language
Common Language

Note: Some definitions were written by the PEL team or were taken from University documents. All other definitions were taken from the following reference:


Academic Analytics: An integrated set of technologies and processes that use data to analyze and understand organizational performance.

Academic Leaders: Deans and department heads.

Accountability: The state of being obligated to, liable for, or answerable for any part of a business process.

Alignment: Adjustment of a practice, object, system, or process in relation to organizational strategy and/or priorities.

Balanced Scorecard: Part of a performance management system that emphasizes linking of an organization’s performance metrics to its vision and strategy. By organizing metrics along financial, customer, internal process, and learning and growth perspectives, it provides a balanced view of organization performance.

Baseline: A standard unit of measurement that represents an overall average and/or a level of performance used to measure progress of a unit or activity at any point in time.

Benchmarking: A process of measuring an entity’s performance, products, and/or services against internal or external standards based on levels of performance achieved by “world class” performance leaders.

Best Practice: A methodology that identifies measurement or performance by which other similar items will be judged. This methodology is used to establish performance standards to aid in identifying opportunities to increase effectiveness and efficiency. Best practices methodology may be applied with respect to resources, activities, cost objectives, or processes.

Budget Process: An annual process that identifies and estimates the resources needed and allows for the budgeting of those resources for the upcoming fiscal year.

Business Intelligence (BI): An integrated set of technologies and processes that use data to analyze and understand organizational performance.

Business Plan: A comprehensive planning document prepared by a company’s management that provides a detailed description of a new or existing business including its objectives, risks and opportunities, strategy, and resources required.

Business Process: A sequence of logically related, time-based work activities performed to provide a specific output for a customer.

Capacity-Building: The ability to create capability around a defined system, process, or function that allows an organization to meet either its strategic or operational goals.
Cascade: The linking of objectives or activities from one layer or level to another.

Change Management: A structured approach to transitioning from the current state to a future state involving organizations, teams, and individuals.

Collegiate Leadership: Deans and department heads.

Compact Process: An annual University process that integrates strategic planning, budget review, and oversight involving colleges and other units with University administration.

Cost Pools: Describes the nine cost centers that allocate overhead costs to colleges and units across the University.

Culture of Evidence: An organization and specifically its culture that integrates data driven decision making into its management processes.

Customer Relationship Management (CRM): This is a set of information technologies that focus on two-way communication with customers to help understand the customer better and to be able to anticipate current and future customer needs.

Dashboards: This is generally part of a system that offers the user early warning assessment of two or more comparative data points generally comparing a given period of time to a year earlier.

Data Custodians: A unit or group of people who are responsible for the availability and accuracy of a specific category of institutional data found in the Oracle Data Warehouse (e.g., the Office of Human Resources is responsible for staff and faculty data in the Data Warehouse)

Data-Driven Decision Making: Using data to inform decision making.

Data Mining: The process by which a system or application can sift through a large amount of data and select relevant information.

Decentralize: An organizational structure in which senior management maintains minimal direction and authority over operations and policies relating to separate identifiable activities and operations. Decentralized management allows great freedom for decision making at the level of lower responsibility centers.

Efficiency: A measure showing the amount of output per unit of input. Often expressed as a percentage of ideal efficiency.

Four Quadrants: Refers to the four areas of measurement that make up the University administrative operational metrics system (service quality, productivity, continuous improvement/innovation, employee engagement).

Incentive: Relates to the various methods used to direct a course of action.

Indicator: Refers to a data element or data aggregation that leads to an assessment of performance.
**Information System**: A system, manual or computerized, consisting of people, data, processes, and information technology with the objective of collecting, manipulating, retrieving, and reporting data in a business or other context.

**Initiative**: Programs, projects, or actions developed to help achieve objectives or goals. Initiatives are often also employed to help measure results to reach the target.

**Initiative Management**: Actively overseeing or managing strategic projects.

**Internal Benchmarks**: These are the best of an organization’s own similar process, products, or services. This is perhaps the easiest form of benchmarking, since the potential benchmarking partners can be easily identified and are usually willing to share information.

**Key Performance Indicator (KPI)**: Quantifiable measurements that reflect the critical success factors of an organization.

**Metadata**: This refers to data about the data and is used to describe the characteristics and usage of data.

**Metrics**: Standards of measurement. In business, a system of parameters used to evaluate organizational performance.

**Metrics Management**: A system and/or set of processes that manage metrics in a proactive way in reaching strategic and operational objectives.

**Milestone**: A destination or location indicating that performance has reached a certain pre-defined level.

**Mission Objectives**: A concise statement of the core purpose of an organization. An organization’s stated goals to become or remain competitive and ensure its long-term sustainability. Strategic objectives tend to set an organization’s long-term direction, and are used to allocate resources.

**Operational Metrics**: Refers to a standard unit of measurement relating to operational activities. Make up one half of a metric system—strategic measures are the other half.

**Organizational Alignment**: Ensure that all organizational units and their activities are consistent with strategy and goals.

**Outcomes**: The result of a project or initiative based on pre-defined metrics.

**Outputs**: The product or service that is the result of inputs and a process or set of processes.

**Performance**: A general term applied to part or all of the conduct or activities of an entity over a period of time, often referenced to some standard such as past or projected costs, an efficiency base, and management responsibility or accountability.

**Performance Measure**: Quantification of the effectiveness and efficiency with which the objectives of a responsibility center have been accomplished.

**Performance Reports**: Reports that show outcomes or metrics of a given set of processes or actions.
**Performance Reviews:** Periodic reviews of unit or individual performance based on a set of predefined measures.

**Process:** A series of time-based activities that are linked to complete a specific output. A process has a beginning, and end, an output, and at least one clearly identified input.

**Productivity:** The relationship between output (the quantity of goods and services produced) and inputs (the amounts of labor, material, and other costs used to produce the goods and services). Usually measured in terms of output per worker per hour but, conceptually, it should include all conversion costs, not only labor.

**Roll-up:** This is a collecting or aggregation of data from organizational units to determine an overall aggregation.

**Scorecard:** A style of user interface designed to deliver user-specific metrics related to an explicitly stated strategy, that:
- Typically focuses on forward-looking, strategic information rather than historic information
- Focuses on collaboration and communication about strategic goals and progress towards achieving them
- Focuses primarily on outcome measures rather than output (or throughput) measures

**Scorecard System:** A strategic performance management system that enables an organization to measure, monitor, and communicate its strategic plan and goals throughout the organization, in a way that is understood by everyone.

**Service Level Agreements (SLA):** A formally negotiated agreement for specified service with two or more parties that involves a client and a service provider.

**Smart Reports:** A report that has built into it algorithms that leverage user profiles to deliver customized reports to the user.

**Stakeholder Analysis:** Identifies stakeholders and how they will likely be affected by predefined actions from an organization. The goal is to develop stakeholder buy-in for projects of a given organization. These analyses are done where there is a need to clarify the outcome from organizational activities.

**Strategic Metrics:** Standard units of measurement that are used to assess an organization’s performance against strategic objectives. Make up one half of a metric system — operational measures are the other half.

**Strategic Planning:** The process of discovering, evaluating, and selecting the strategies that management decides the entity should undertake. Strategies are broad, major plans, usually without specific time limits.

**Strategy:** The way that an organization positions and distinguishes itself from its competitors. It is the basic business approach an organization follows to meet its goals.

**Strategy Management:** The process of articulating an organization’s objectives, developing plans to achieve these objectives, and allocating resources to implement and monitor the progress. It is often performed by the organization’s Chief Executive Officer (CEO) and executive team and is the highest level of managerial activity. Strategy management is the combination of strategy formulation and implementation.
Strategy Map: A visual depiction, often on a single page, of an organization’s strategic plan for success. Often strategy maps show not only the objectives for the organization, but also the relationship between them, and the categorization of each objective. A strategy map is often used to illustrate to employees how their jobs are related to the organization’s overall objectives.

Succession Planning: The process of identifying and preparing qualified employees to replace key leaders in an organization.

Sustainability: A state or circumstance that can be maintained at a defined level indefinitely.

Target: A defined goal or set of objectives for which an organization is striving.

Trend Analysis: Attempting to identify a pattern in data over time.

Work Plans: Generally refers to individual plans of work intended to communicate where an individual intends to place his/her effort.
Appendix D
Annotative Bibliography
## Annotative Bibliography

<table>
<thead>
<tr>
<th>Reference</th>
<th>Summary</th>
<th>Key Themes</th>
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High level sponsorship  
Technology |
Identify early wins to show success (help describe what success will look like)  
Formal communication involves strategic, planned campaigns of implementers and upper and mid-level managers to introduce change and garner expected cooperation from employees.  
“Commonly understood that employee cooperation during change initiatives is key to the success of most if not all planned organizational changes.”  
“Need to know how employees react to communication opportunities and how they associate those opportunities with the important outcomes for change programs.”  
The degree to which employees experience positive changes at one point in time likely affects their receptivity to other changes later on. | Effective communication  
Identify early wins and describe what success looks like  
Past experience with change initiatives impacts the success of new initiatives |
Communicate in a new way so it feels different to employees.  
*How to get employees to cooperate?* “Leverage, visibility, and responsiveness are key enablers of consistent strategy execution”  
Balanced scorecards communicate the institution’s objectives.  
Use balanced scorecards to show accountability and performance improvement. It shows a snapshot to outsiders of how well the institution is functioning. It helps units to see how they fit into the institution’s goals.  
People at all levels need to be involved in the process. | Behaviors need to change to be successful  
Communicate in a new way  
Leverage, visibility, and responsiveness are key to garner cooperation.  
All employees need to be engaged in the process. |
Four phase implementation: | Keep it simple  
Requires goal-oriented change |
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<thead>
<tr>
<th>Reference</th>
<th>Summary</th>
<th>Key Themes</th>
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| Quality in VET-schools project, *Adopting Balanced Scorecards*            | - planning  
- implementation of BSC objectives and communication of factors that measure practical action  
- regular measurement  
- annual navigation sessions and evaluation  

Set up a specific project to implement BSC  
- determine objectives, tasks and responsibilities  
- keep it simple  
- don’t try to do too much  
- all staff have an opportunity to participate  

Requires goal-oriented change management—paying attention to operating environment  
- limit the number of metrics to ensure validity  
- allocate resources—show your commitment  
- communicate intentions from the start  
- train members on how to use the BSC  
- communicate the benefits of BSC to units  
  - strategic system for managing processes  
  - raises visibility of performance  
  - guarantees agreed upon objectives and strategies are implemented  
  - good way to prove effective use of public funds  
  - shows performance in terms of mission, values and outcomes  
  - allows managers to identify best practices within institution  
  - reduces institutional risk by supporting better and faster decisions based on relevant data and experiences  
- Allow two academic years for implementation  
- Don’t implement if institution is not ready for change  
- Don’t implement if resources are lacking                                                                                                                                  | management  
Don’t implement if resources are not available and institution is not ready.                                                                                                      |
| Davenport, Thomas and Harris, Jeanne (2007)  
*Competing on Analytics: The New Science of Winning*, pages 7-8.             | “By analytics we mean the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions”  

“Analytics are a subset of what has come to be called business intelligence: a set of technologies and processes that use data to understand and analyze business performance.”  

“Why Compete on Analytics”  
“At a time when companies in many industries offer similar products and use comparable technologies, high-performance business processes are among the last remaining points of differentiation.”                                                                 | Analytics, Business Intelligence, fact-based management |
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<th>Reference</th>
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• Data management  
• Transformation tools and processes  
• Repositories  
• Analytical tools and applications  
• Presentation tools and applications  
• Metadata  
• Operational processes | Repositories, metadata, data management |
| Davenport, Thomas and Harris, Jeanne (2007) *Competing on Analytics: The New Science of Winning*, page 159. | “What data is most valuable for competitive differentiation and business performance? To answer, executives must have a clear understanding of the organization’s distinctive capabilities, the activities that support that capability, and the relationship between an organization’s strategic and operational metrics and business performance.” | Competitive differentiation, distinctive capabilities |
| Davenport, Thomas (Jan 2006) *Competing on Analytics*, Harvard Business Review, page 103 | “Employees hired for their expertise with numbers or trained to recognize their importance are armed with the best evidence and the best quantitative tools. As a result, they make the best decisions.” | Expertise, best evidence, quantitative tools, best decisions |
1. Scorecard Management  
2. Organization Alignment  
3. Strategy Reviews  
4. Strategic Planning  
5. Strategy Communication  
6. Initiative Management  
7. Planning/Budgeting  
8. Workforce Alignment  
9. Best Practice Sharing | Scorecard, alignment, strategic planning |
1. Establishing a sense of urgency  
2. Forming a powerful guiding coalition  
3. Creating a vision  
4. Communicating the vision  
5. Empowering others to act on the vision  
6. Planning for and creating short-term wins  
7. Consolidating improvements and producing still more changes  
8. Institutionalizing new approaches | Guiding coalition, vision, urgency |
| Niven, P. (2003) *Balanced Scorecard Step-By-Step for Government and Nonprofit Agencies*. Hoboken,NJ: John Wiley and Sons, Inc. | Describes how a non-profit or a government agency can implement the balanced scorecard approach that has been typically used in the for-profit sector in creating a tool to create a big picture of organizational strategies and develop specific operational measures | Barriers: Vision, people, resources, and management  
Size of organization determines where you first develop the scorecard: Large |
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<tr>
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<tr>
<td>Olve, N., Petri, C., Roy, J., &amp; Roy, S. (2003). <em>Making Scorecards Actionable: Balancing Strategy and Control</em>. Hoboken, NJ: John Wiley and Sons Inc.</td>
<td>This book looks closely at the experiences different organizations have using the balanced scorecard method and addressed the issues and challenges of this methodology and what step by step methods need to occur to make the scorecard process actionable and usable for organizations.</td>
<td>Organizations (p.52) usually benefit the best by having the scorecard first implemented at a high level then cascade down. Need a solid training program and communication plan for employees.</td>
</tr>
</tbody>
</table>
- Partnership with staff, unions, key suppliers, and key customers  
- Transfer of power to the front line  
- Integration of measurement, reporting, and improvement of performance  
- Linkage of performance measures to strategy | KPIs, performance measures |
<p>| Parmenter, David (2007) <em>Key Performance Indicators: Developing Implementing, and Using Winning KPIs</em>, page 23 | Describes the process for moving from mission to performance measures. See Exhibit 2.2 | Mission, vision, values, strategies, critical success factors, performance indicators |</p>
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<thead>
<tr>
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<th>Key Themes</th>
</tr>
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<tbody>
<tr>
<td>Phillips, J., Bothell, T., &amp; Snead, L. (2002) The Project Management</td>
<td>From a project management standpoint the balanced scorecard can be a useful tool to help improve their return on investment. This book discussed setting the stage for the creation and acceptance of the use of the balance scorecard and also the measures to use and the key issues that are involved with the use of a metric tool – this book focused only on the corporation side, but has helpful points.</td>
<td>Involve the staff in the process</td>
</tr>
<tr>
<td>Scorecard: Measuring the Success of Project Management Solutions.</td>
<td></td>
<td>Need a champion of the process</td>
</tr>
<tr>
<td>Burlington, MA: Elsevier</td>
<td></td>
<td>Biggest reason of failure is resistance of the scorecard. Communication and buy-in is critical to make it successful.</td>
</tr>
<tr>
<td>Poister, T. (2003). Measuring Performance in Public and Nonprofit</td>
<td>This book describes performance measures as a whole and discusses the benefits and challenges of developing and maintaining performance measures in the public and non-profit sectors. The importance of performance measures help managers and others assess their performance and gauge their progress of delivering effective programs. Service is important but will look different for each organization, whether its for-profit or non-profit entities. It identified ten processes to implement any type of performance measure: 1. Securing management commitment 2. Develop a system/process 3. Clarify the purpose and parameters 4. Identify outcomes/criteria 5. Selecting indicators 6. Data collection procedures 7. Specifying system design 8. Conducting a pilot program 9. Implement full scale system 10. Evaluate and modify system if needed</td>
<td>Performance measures are used to support management functions: reporting, strategic planning, budgets, program management/evaluation, improvement, communication When used properly performance measures can help make better decisions, increase performance and productivity, and create a sense of accountability.</td>
</tr>
<tr>
<td>Price Pritchett and Ron Pound, High-Velocity Culture Change, A</td>
<td>“You’ll have trouble creating a new culture if you insist on doing it in ways that are consistent with the old one.” “You must hit with enough shock effect to immobilize the old culture at least temporarily.” Otherwise, people will practice self-protective behavior. Identify clear goals to generate energy and enthusiasm. “Make it painful and unpleasant for people to hang onto old habits you are trying to break.” People need to understand the logic and rationale behind the changes and how they will be affected personally. “Your job is to give everyone in your group personal accountability for transforming the culture.” Short term wins help to convince others that the</td>
<td>Change the ways you work to change the culture. Be clear on the logic and rationale. Short term wins Training builds confidence.</td>
</tr>
<tr>
<td>Handbook for Managers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td>Summary</td>
<td>Key Themes</td>
</tr>
<tr>
<td>-----------</td>
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<td>------------</td>
</tr>
<tr>
<td>Schneiderman, Arthur M. (1999), <em>Why Balanced Scorecards Fail</em>, Journal of Strategic Performance Measurement</td>
<td>Changes might be right after all. Employees need training to build their confidence and willingness to change. Give people new techniques—a skill package consistent with what is needed in the new culture. “To be successful the balanced scorecard must be viewed as the tip of the improvement iceberg.” “Lack of top management commitment has repeatedly been identified as the single most important factor in explaining the failures of organizational change initiatives...” “If you are not “keeping score” you are only practicing.” The most important implementation imperative is to ensure all employees participate in the process. Institutions can change when employees share ownership for both the goals and means. Management consensus is key to getting buy-in from the rest of the institution. “Metrics may improve, but all too often, the underlying processes don’t.”</td>
<td>Top management commitment is important to success. All employees should participate in the process.</td>
</tr>
<tr>
<td>Stewart, Alice C. and Carpenter-Hubin, Julie <em>The Balanced Scorecard, Beyond Reports and Rankings</em>, Planning for Higher Education, Winter 2000-2001</td>
<td>Performance indicators need to be linked to drivers of institutional effectiveness in a meaningful way. “The development of internal indicators requires more attention to the contextual characteristics and operational goals of the university.” “External audiences are often limited in their area of interest and have specific ideas of what might be acceptable institutional outcomes. How they influence perception of success or failure is key. The emphasis of the university is primarily on external perception of success and manipulation of image and only secondarily on improved institutional effectiveness.” “The focus on higher goals and values precludes specific action due to a lack of a supporting political coalition and/or criteria by which to evaluate the plan.” “Getting managers to think systematically about the assumptions underlying their strategy is an improvement.” “Translating the balanced scorecard to the complex world of academia is a challenge.”</td>
<td>Performance indicators linked to institutional effectiveness. External audiences perception is key. Needs a supporting coalition.</td>
</tr>
</tbody>
</table>
Appendix E
Annotative Review of Institutions of Higher Education
## Annotative Review of Institutions of Higher Education

<table>
<thead>
<tr>
<th>Peer Institution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Florida</td>
<td>They are not doing anything in administrative metrics and do not have plans to do this type of project in the near future</td>
</tr>
<tr>
<td>University of Wisconsin – Madison</td>
<td>They are working on an administrative “redesign” project to redesign business practices. Looking at ways for streamlining processes, reviewing standards, simplifying and automating processes. They are seeking input from several constituent groups in the campus community.</td>
</tr>
<tr>
<td>University of Illinois - Urbana Champaign</td>
<td>They are in the beginning stages of developing and implementing administrative metrics. They explored the BSC approach when they were developing a reporting tool for strategic planning. They were looking for a tool that would help us measure progress towards our recently completed strategic plans and, specifically, the priorities that emerged from the planning process. They started with a BSC framework but it quickly evolved into a report with sections devoted to each of the priorities. You can find the final progress report at this webpage: <a href="http://www.uillinois.edu/president/strategicplan/ProgressReport/index.cfm">http://www.uillinois.edu/president/strategicplan/ProgressReport/index.cfm</a></td>
</tr>
</tbody>
</table>

A few additional summary notes about the report:

- Each section is devoted to a priority that emerged from the University of Illinois’ strategic planning process. The distinct nature of each of these priorities requires a unique set of metrics. However, included in each section should be multiple kinds of metrics (i.e., financial, academic, reputational, etc.). You could say that this aspect is similar in nature to a BSC approach. Our goal was to paint a **full and accurate** picture of the progress toward each priority.

- Each section includes metrics/data points as well as contextual information. This allows for the inclusion of background information and explanations of metrics/trends where appropriate.

- The plan is to report on progress on an annual basis as part of the strategic planning/execution cycle (i.e., scan of the environment – strategy development/updating – execution – reporting on progress). I anticipate that the report will look very different from year to year, but that many of the same metrics will be used.

- Another part of our strategic planning/execution cycle is the environmental scan (http://www.uillinois.edu/president/strategicplan/EnvironmentalScan.cfm). This document represents another coordinated way in which the University is utilizing metrics and data. Of course, the vast majority of these are environmental data rather than performance indicators. This document was initially developed to inform the strategic planning process. It has been updated on an annual basis and is intended to be used as existing strategies are updated and new strategies are initiated.

They are in the early stages of introducing metrics/scorecards as central administrative accountability tools. I look for the U of I to continue to increase its
<table>
<thead>
<tr>
<th>Peer Institution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Texas- Austin</td>
<td>use of administrative metrics, especially in the area of efficiency of central functions. They are just now beginning to develop key performance indicators and plan to begin developing dashboards to monitor institutional effectiveness in the spring.</td>
</tr>
<tr>
<td>University of Michigan</td>
<td>Their effort started in 2003 and they built a web based tool that includes financial and human resource measures to facilitate strategic decisions on human capital management and staffing trends. This is a collaboration between Human Resources, Affirmative Action, Health Systems, College of Literature, Science, &amp; Arts, Michigan Administrative Information Services and the Corporate Leadership Council. They use approximately 60 measures. For more information see <a href="http://www.bi.umich.edu/projects/hr_metrics.html">http://www.bi.umich.edu/projects/hr_metrics.html</a> The contact for more information on the project is Gary Uptigrove (<a href="mailto:garyupti@umich.edu">garyupti@umich.edu</a>)</td>
</tr>
<tr>
<td>Capital Campaign Metrics Project</td>
<td>The purpose is to design and implement a user-friendly, web-based capital campaign metrics system that provides consistent measurements for fundraising and related activities across the University and enables campaign leaders to monitor progress toward campaign goals. See <a href="http://www.bi.umich.edu/projects/capital_campaign_metrics.html">http://www.bi.umich.edu/projects/capital_campaign_metrics.html</a> for further details. Contact Brent Dickman (<a href="mailto:dickmanb@umich.edu">dickmanb@umich.edu</a>) for further questions.</td>
</tr>
<tr>
<td>M-Stat, M-Dash &amp; M-Alert</td>
<td>Project Description: The Medical School strategic reporting system comprises three parts: • M-Stat, which makes available information about space allocations, faculty appointments and compensation, research submissions, expenditures and awards, clinical activity and more. • M-Dash, an application that knits together the information from M-Stat and turns it into easy to understand and useful charts, graphs and projections. • M-Alert, a system which sends e-mails to users when selected numbers fall above or below certain levels. Project Purpose, Scope, &amp; Deliverables • Obtain a better understanding of metrics currently in use to manage various units in the Medical School. • Identify value drivers. • Determine Key Performance Indicators (KPIs) and benchmarks. • Ensure consistency with the strategic vision of the Office of the Executive Vice-President for Medical Affairs and the Medical School Office of the Dean. • Create a dashboard to facilitate an accessible shared understanding of organizational direction. See <a href="http://www.bi.umich.edu/projects/mdash.html">http://www.bi.umich.edu/projects/mdash.html</a> for more details. For questions contact Karen Dannemiller (<a href="mailto:karendan@umich.edu">karendan@umich.edu</a>).</td>
</tr>
<tr>
<td>Peer Institution</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Pennsylvania State University</td>
<td>Since April 1999 they have produced a “Strategic Indicators” Measuring and Improving University Performance” report. This report is about academics and not administrative measures. However for more information on that contact <a href="mailto:psupia@psu.edu">psupia@psu.edu</a> or see <a href="http://www.psu.edu/predident/pia">www.psu.edu/predident/pia</a>. Beyond this Penn State does not seem to be doing much in the way of administrative metrics or at least found on their website.</td>
</tr>
<tr>
<td>University of Washington</td>
<td>This university has implemented a true balanced scorecard approach to track several administrative activities related to their Business Services area. These activities include Emergency Management, Records Management, Public Services, Real Estate Office, and University Police. The implementation of the balanced scorecard includes the four traditional quadrants (Financial, Customer, Internal Processes and Learning and Growth). The format includes processes or objectives, measures, performance, annual target and the calculated gap in performance. For more details go to the following site <a href="http://www.washington.edu/admin/business/oem/bsc/oem_bs_tbl.php">www.washington.edu/admin/business/oem/bsc/oem_bs_tbl.php</a></td>
</tr>
<tr>
<td>University Of California – Berkeley</td>
<td>UC-Berkeley did use scorecards but is no longer.</td>
</tr>
<tr>
<td>University of California – Los Angeles</td>
<td>We could find no use of scorecards on a University-level for UCLA.</td>
</tr>
<tr>
<td>Ohio State University</td>
<td>Ohio State University is going through a strategic transformation and using scorecards to publicly show their progress. Please see the following URL for more information: <a href="http://www.osu.edu/academicplan/scorecard.html">http://www.osu.edu/academicplan/scorecard.html</a></td>
</tr>
<tr>
<td>University of California San Diego (UCSD)</td>
<td>UCSD has been working at administrative metrics for years and has significant work in the administrative metrics area. The main web site can be found at <a href="http://www.vcba.ucsd.edu/performance/2006/">http://www.vcba.ucsd.edu/performance/2006/</a>. They are using the four traditional quadrants of the Balanced Scorecard (Financial, Customer, Internal Processes and Learning and Growth). Areas include Bookstore, Housing, Imprints, Parking, Storehouse and Telecommunications. Charts, graphs and tables of data exist in an easy to read format.</td>
</tr>
</tbody>
</table>
Appendix F
List of Interviewees
Interviewee List

Lisa Carlson, Vice President for Research, Office of Oversight, Analysis and Reporting, UMTC

Carol Carrier, Vice President, Office of Human Resources, UMTC

Steve Cawley, Vice President and Chief Information Officer, Office of Information Technology, UMTC

Steve Fitzgerald, Director, Office of Classroom Management, UMTC

Meredith Fox, Coordinator of Analytics and Strategic Planning, UMTC

Patricia Franklin, Associate to, Office of the President, UMTC

Bernard Gulachek, Director of Planning, Office of Information Technology, UMTC

Karen Himle, Vice President, Office of University Relations, UMTC

Jacqueline Johnson, Chancellor, University of Minnesota, Morris

Lincoln Kallsen, Budget and Financial Analysis Director, Office of Budget and Finance, UMTC

Joe Kelly, Associate to, Office of Human Resources, UMTC

Jay Kiedrowski, Senior Fellow, Public and Nonprofit Leadership Center, HHH Institute of Public Affairs, UMTC

Leslie Krueger, Associate to, Office of University Services, UMTC

Robert Kvavik, Associate Vice President, System Academic Administration, Office of Planning, UMTC

Matthew Larson, Coordinator, Office of Service and Continuous Improvement, UMTC

Scott Martens, Director, Office of Service and Continuous Improvement, UMTC

Kathleen O’Brien, Vice President, Office of University Services, UMTC

Nancy Peterson, Course and Scheduling Manager, Office of Classroom Management, UMTC

Richard Pfutzenreuter, Vice President and Chief Financial Officer, Treasurer, Office of Budget and Finance, UMTC
Sharon Reich-Paulson, Assistant Vice President, Office of Sr. Vice President Academic Affairs and Provost, UMTC

Gerald Rinehart, Vice Provost, Office of Student Affairs, UMTC

Sean Schuller, Assistant Director of Process Development, Office of Facilities Management, UMTC

Joe Schultz, Associate Analyst, Strategic Projects, Office of Sr. Vice President Academic Affairs and Provost, UMTC

Julie Tonneson, Budget Director, Office of Budget and Finance, UMTC

Paul Treuer, Associate Professor, Director of Knowledge Management Center, UMD

David Weber, Chief Strategic Operations Officer, Rochester Community and Technical College

Amelious N. Whyte, Jr., Associate to the Vice President, Office of Student Affairs, UMTC
Appendix G
Summary of Interview Questions and Talking Points
PEL Team Interview Questions and Responses
(Compiled notes from interviews with administrative leaders at the University.)

1. What is the scope of “administrative operational effectiveness”?
   Cost pools are a focus
   Everything except research, education, and core mission
   The four pillars (exceptional organization, innovation, students, faculty and staff)

2. What is the urgency for using administrative performance measures?
   Agreed upon set of metrics for all administrative units that Deans understand
   There is urgency for the cost pool units and administration
   Improved accountability, aligning customer expectations with an implied service level agreement for each cost pool is needed.
   Identifies where the money would go
   Accountability
   No urgency
   A lot of work going on in this area
   If we don’t measure — we don’t improve
   Have the capability to do this
   Address issues and problems
   Strategic positioning
   We should be doing this already

3. Where are the greatest opportunities for administrative performance measures?
   Prove performance to legislators
   Sustainability
   Be transparent
   Better decision making
   Better data/consistency
   Share information
   To provide accountability to the University community related to central providers of services.
   This should drive overall organizational effectiveness.
   **The bottom line is financial effectiveness.

4. What are the main roadblocks to success?
   Making sure data will be used
   Tied to action
   Resources
   Time
   People
   Culture barriers
Common terminology
University lacks a holistic vision to support senior leaders
Resources not an issue – priorities are
Top people don’t drive - then it will not succeed
University has a relationship culture
Needs to be tied to something
Training
Finding the measures that are meaningful
Don’t have well defined measures
Need central help
Unit level easier to do than University as a whole level
Trusting the data
Organizational metrics – not at central level

5. What are the tangible benefits to administrative performance measures?

Create of transparency
Focus on effectiveness and cost
It is the right thing to do
Better data driven decisions
Measure productivity
Strategic goals
Doing things right the first time
Honest feedback
Accountability
Proactive
Better resource dollar allocation

6. How is success defined relative to this project?

If at the end there is a report that is received and acted on
There needs to be actionable next steps and compelling reasons to move forward
When metrics are used
Establishing a workable process
Linking performance measures to resources
Tied to the University system
High level sponsor
Dedicated staff
Training
People view it as real, creditable, simple
Assess along the way and fine tune as you go

7. What change management strategies have you used or been exposed to? Do you have a preference?

To affect culture you have to change behaviors. You need to understand the behaviors
Engagement
Buy in
Dedicated resources
Balanced Score Card
Training – the University’s change management training is great!

8. Describe how administrative metrics could be linked to the compact process.

Work plans are not reviewed at the compact process unless there is a significant problem.
We don’t want to micromanage the Deans.
Doesn’t believe it should include the academic units.
The BSC should be focused on service units.
It could make the compact process more structured and strategic.
It would move units in the direction to think more long term.
The college profiles are prepared before the compact meeting but are not on the agenda and not always discussed.
Tying it to the compact gets all of the people together at the table at the same time.
The Provost could use it as his agenda and the Deans would recognize its value.
They should expect to be ready to discuss those measures with the Provost.
Admin metrics needs to be linked to the compact process
Link existing management processes to budget and compact process

9. What are the challenges to the institution?

Academia is rigorous in their methodology and we wouldn’t expect researchers to operate on a hunch - We should not manage that way.
Cultural differences make it difficult to implement throughout the institution.
Challenges include picking the correct measures and moving forward collectively
Getting buy-in and agreement with the general overall direction
One challenge the institution has is to select and drive to the correct goals
(student retention, graduate rate, student satisfaction)

10. What are the opportunities to the institution?

The opportunities are with aligning our activities with institutional priorities.
There could be some value in having metrics.
The metrics could provide data to prove need for additional cost pool dollars.
We create it before it is done for us.

11. What are the threats to the institution by implementing administrative metrics?

Need to look at all the measures holistically and work to keep them from becoming punitive.
Making the information public opens it up for many interpretations of the data.

12. Do you think the benefits outweigh the costs?

Yes, with institutional metrics that is meaningful at the collegiate level.
Skeptical about using metrics, but believes that if units have input into identifying the measures for their area, they will be more engaged and
accountable to the outcomes. The U has the data available through many sources; it just needs to capture it.
Concerned about requiring metrics and the resources it will require which means they won’t be available for other things.
“Yes, it is at our peril if we don’t. We need to do this before someone else does it for us.”

Other comments:

There needs to be accountability
Weekly status reports
LOTS of communication
There is a lack of transparency
Pilot on coordinate campus
Key Stakeholders: Sr. Admin, Deans
Extend metrics and performance measures into existing processes
Urgency replaces importance
Need training
Need head of operations or administration to help push along
Discipline is needed to successfully apply change management
Attach it to management processes
VP work plans
HR processes
Compact
Budget
Strategic planning

This project could be owned by:
Robert Jones
Bob Kvavik
The Planning Office
Budget office should help facilitate process
Central office overseeing data sources – let units do data reporting
Appendix H
Before and After: Integrating Administrative Metrics
Before and After: Integrating Administrative Metrics

The characteristics of the University’s organizational landscape before administrative operational metrics and the view after administrative operational metrics have been integrated into the management culture of the University.

<table>
<thead>
<tr>
<th>BEFORE</th>
<th>AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragmented enterprise</td>
<td>Single enterprise view and increased awareness across the University</td>
</tr>
<tr>
<td>Limited organizational alignment to University’s aspiration goals</td>
<td>Improved organizational alignment</td>
</tr>
<tr>
<td>Lack of a strategic management system</td>
<td>Linked with high level strategic perspectives and strategic themes</td>
</tr>
<tr>
<td>Limited University-wide operational and or strategic measures</td>
<td>Prioritized, managed initiatives</td>
</tr>
<tr>
<td>Limited/fragmented organizational structure to sustain metrics</td>
<td>Opportunities for strategic communications</td>
</tr>
<tr>
<td>Limited evidenced-based approach to decision making</td>
<td>University-wide operational and or strategic measures</td>
</tr>
<tr>
<td>Limited use of data for decision making and a lack of comparative data</td>
<td>Effective oversight via transparency of metric performance</td>
</tr>
<tr>
<td>Measurement efforts are disconnected and vary across the University</td>
<td>Integrated strategic management system required</td>
</tr>
<tr>
<td>General capacity issues exist related to integrating metrics into the management decision making process</td>
<td>Tangible contributions to exceptional organizational strategy demonstrated with help of administrative operational metrics</td>
</tr>
<tr>
<td>Funding is not tied to unit level performance in a systematic way</td>
<td>More active initiative management</td>
</tr>
</tbody>
</table>

Abstract of Methodology: After members of the PEL team conducted an internal environmental scan at the aggregate level, a list of characteristics was assembled illustrating the “before” view, that is, prior to implementing administrative operational metrics. The team also assembled an “after” view informed by various prominent articles and books in the field of administrative metrics and through numerous interviews of University and non-University researchers and practitioners of administrative metrics.
Appendix I
Critical Factors for Successful Implementation
### Critical Factors for Successful Implementation

<table>
<thead>
<tr>
<th>Factor</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real and meaningful accountability measures and controls</td>
<td></td>
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<tr>
<td>Communication plan developed on the need for admin metrics</td>
<td></td>
</tr>
<tr>
<td>A culture of accountability throughout the Institution</td>
<td></td>
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<tr>
<td>Established formal process or system of admin metrics</td>
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</tr>
<tr>
<td>Real and/or perceived value of admin metrics</td>
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<tr>
<td>Easy access and analysis of pertinent data</td>
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<tr>
<td>Sense of urgency across the Institution</td>
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<tr>
<td>Completed external stakeholders analysis and involvement</td>
<td></td>
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<tr>
<td>Completed internal stakeholders analysis and involvement</td>
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<tr>
<td>Clear indication of willingness to be transparent</td>
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<tr>
<td>Integrated into current management processes</td>
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<tr>
<td>Appointed coordinator to oversee administrative metrics processes</td>
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<tr>
<td>Established guiding coalition, speaking and acting as one voice</td>
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<tr>
<td>Allocated resources to build capacity for admin metrics</td>
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<tr>
<td>Proposed realistic process &amp; framework</td>
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<tr>
<td>Established processes across the system that can be adapted</td>
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<tr>
<td>Influential pockets of knowledge, commitment, and expertise</td>
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<tr>
<td>Willingness to implement in phased approach</td>
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<tr>
<td>High level sponsorship</td>
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<tr>
<td>Real awareness of the need for metrics across the Institution</td>
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<tr>
<td>Willingness to honor the unique needs of each college and unit</td>
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<tr>
<td>Growing Institutional momentum</td>
<td></td>
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<tr>
<td>Management processes in place</td>
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<tr>
<td>Management functions have been identified</td>
<td></td>
</tr>
<tr>
<td>Increased external pressures for accountability measures</td>
<td></td>
</tr>
<tr>
<td>Clear Institutional mission &amp; goals</td>
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</tbody>
</table>

### Institutional Levers

Many caring, competent, and skilled leaders have implemented practices of administrative metrics in their units, the University is privileged to draw from these experiences and processes when building a central administrative operational metrics program. Examples of some areas practicing administrative operational metrics follow:

- Audits
- FM
- OCM
- Office of the President
- OHR
- OIT
- OSA
- OVPR
- University Services

Additionally, the University can rely on knowledge from expert staff in many units across the system that foster organizational excellence. Some examples include:

- Office of Planning
- Office of Institutional Compliance
- Office of Service and Continuous Improvement (OSCI)
- Organizational Effectiveness
- University Relations
- Office of Institutional Research
- Office of Measurement Services

### Abstract of Methodology

After members of the PEL team read various prominent articles and books in the field of administrative metrics and conducted numerous interviews of University and non-University researchers and practitioners of administrative metrics, the team generated a list of the most critical factors and assigned a value to each factor based on the findings of our question, *To what extent is each factor developed at a University-level?*
Appendix J
Elements of a Useful Data Dashboard
Elements of a Useful Data Dashboard

- Is secure, Flexible, intuitive and accessible
- API
- Is built on Web service Architecture
- Integrates into myU
- Aligns with University mission, vision, and goals
- Functionality to help predict
- Has functionality to drill down to microdata analysis
- Uses icons, graphs, and gauges for quick snapshot
- Various view privileges
- Supports data analysis and reporting from many data sources
- Provides easy reading of University-level metrics
- Optional, additional metric reporting from all units
- Integrates current unit dashboard displays
- Allows notes and qualitative remarks
- Supports various reports
  - Scheduled reports
  - On-demand reports
  - User-defined reports
  - Drill-down reports
  - Ad hoc queries
- Extracts data to OLAP tools offline tools (such as Excel)
- Generates alerts from monitoring tools
Appendix K
Certified Balanced Scorecard Software
### Certified Balanced Scorecard Software

The information below regarding Certified Balance Scorecard Software is taken directly from the Balance Scorecard Collaborative at [http://www.bscol.com/bsc_online/resource/](http://www.bscol.com/bsc_online/resource/)

<table>
<thead>
<tr>
<th>Balance Scorecard Software</th>
<th>Web site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognos</td>
<td><a href="http://www.cognos.com/">www.cognos.com/</a></td>
</tr>
<tr>
<td>CONSIST FlexSI</td>
<td><a href="http://www.consist.com/">www.consist.com/</a></td>
</tr>
<tr>
<td>Corporater</td>
<td><a href="http://www.corporater.com/">www.corporater.com/</a></td>
</tr>
<tr>
<td>CorVu</td>
<td><a href="http://www.corvu.com/">www.corvu.com/</a></td>
</tr>
<tr>
<td>The Executive Strategy Manager</td>
<td><a href="http://www.executivestragetymanager.com/">www.executivestragetymanager.com/</a></td>
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<td>Extensity (formerly Geac)</td>
<td><a href="http://www.extensity.com/page/default_CORP.html">www.extensity.com/page/default_CORP.html</a></td>
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<td>InPhase</td>
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<td>Microsoft</td>
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<td>Oracle</td>
<td><a href="http://www.oracle.com/applications/financials/bsc.html">www.oracle.com/applications/financials/bsc.html</a></td>
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<td>Performancesoft</td>
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<td>QPR</td>
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<tr>
<td><strong>Balance Scorecard Software</strong></td>
<td><strong>Web site</strong></td>
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<tr>
<td>Rocket Software</td>
<td><a href="http://www.rocketsoftware.com/portfolio/epm/balanced+scorecard+solution">www.rocketsoftware.com/portfolio/epm/balanced+scorecard+solution</a></td>
</tr>
<tr>
<td>Vision Grupo Consultores</td>
<td><a href="http://www.visiongc.net/">www.visiongc.net/</a></td>
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</tbody>
</table>
Appendix L
Framework for Success at the University of Minnesota
Implementation of Administrative Metrics

Framework for Success at the University of Minnesota

Embedded in a collaborative structure
Anchored in management processes
Implemented in collaborative, reflective phases
Integrated into a reporting tool that provides flexibility and transparency

Linked directly to University’s mission
and goals and overall metrics system

Key Principles of Accountability
- access
- affordability
- assessment
- financial transparency
- goals and action plans
- federal and state agendas
- incentives
- innovation
- performance indicators
- public trust

Key Leadership Behaviors
- align correct people and appropriate resources
- assess needs of external and internal stakeholders
- develop quality training and support
- establish accountability through outcomes
- offer meaningful assessment of process
- offer meaningful times for feedback and reflection
- remove institutional barriers
- implement strategic communication
- set the vision

Key Institutional Values & Cultural Characteristics
- adaptable
- benchmarking
- caring
- collaborative
- communication
- consensus-building
- continual improvement
- culture of evidence
- data-driven
- excellence
- learning organization
- strategic
- stewardship
- swift
- transparent

Adaptable
Benchmarking
Caring
Collaborative
Communication
Consensus-building
Continual improvement
Culture of evidence
data-driven
Excellence
Learning organization
Strategic
Stewardship
Swift
Transparent
Appendix M
Collaborative Administrative Operational Metrics Structure
Collaborative Administrative Operational Metrics Structure

Users
Senior leaders, administrative vice presidents, unit leaders, other functional leaders and analysts

President and Senior Vice Presidents
Executive Level

Steering Committee
Administrative Vice Presidents, Chair of Twin Cities Deans group

Working Group
OIT, OSCI, OMS, IMS, OIR

Process Owner
Associate Vice President of Planning, Office of Planning

Collaborative Administrative Operational Metrics Structure
Appendix N
Process Flow of Administrative Metrics
Process Flow of Administrative Metrics

President and Senior Vice Presidents
- Office of Planning

Administrative Metrics Steering Committee

Administrative Metrics Work Group

Academic Metrics Steering Committee

Academic Metrics Work Group

Administrative Users
- Administrative Vice Presidents & Unit Leaders
  - Units
  - Colleges

Academic Users
- Administrative Vice Presidents & Unit Leaders
  - Colleges

Process Flow of Administrative Metrics
Appendix O
Existing University Management Processes
### Central units compact reviews
(Planning, budgeting, unit review)

### Unit performance review
(Assessment at the unit level)

### College level compact process
(Planning, budgeting, unit review)

### University level compact process
(Planning, budgeting, unit review)

### Budget process
(Annual budgeting and planning process)

### Hiring/retention
(Workforce alignment)

### Professional development
(Capacity building)

### Succession planning
(Leadership development)

### Work plans of executives
(Work plans of President’s cabinet)

### Work plans of deans and unit heads
(Work plans of deans and VPs, etc.)

### Individual Performance reviews
(Job reviews for leadership)

### Communications strategy
(Organizational communications)

### Strategic planning
(Planning the direction of an org unit)

### Organizational alignment
(Ensures strategy is being executed)

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**Abstract of Methodology:** After members of the PEL team conducted a series of interviews of University administrators and practitioners across the University a list of existing management processes and their related timelines was assembled. These management processes were chosen for their ease of integration with administrative operational metrics.

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**Note:** This is a draft of timelines of existing management processes. Individual units may use a different schedule to implement these processes.
Appendix P
Snapshot: Implementing Administrative Operational Metrics
### Aligning Policies, Procedures, and Resources at a University Level
The initial phase of successful implementation consists of establishing policies and procedures that support a robust system of administrative metrics.

<table>
<thead>
<tr>
<th>Responsibilities of University-level</th>
<th>Responsibilities of Unit-level</th>
</tr>
</thead>
<tbody>
<tr>
<td>implement strategic communication processes within collaborative administrative metrics structure, build core systems and processes, create model of integration of administrative metrics, implement communication throughout University system, anchor in compact and budget processes, and provide training</td>
<td>evaluate staff data analysis skills to determine training needs, align staff and resources to prepare for optional unit-specific metrics (each unit may define and create additional operational and/or strategic metrics pertinent to their unit), identify data sources for specific metric data, determine how metric analysis will be integrated into management processes (e.g., work plans, compact, budget), define with unit managers how metric outcomes will inform decision making, recognize this is a learning stage for using metrics for decision making</td>
</tr>
</tbody>
</table>

### Building Infrastructure
This phase of successful implementation consists of building an infrastructure that supports a robust system of administrative operational metrics. The following strategies will set a foundation for successful achievement of the remaining phases of implementation.

<table>
<thead>
<tr>
<th>Responsibilities of University-level</th>
<th>Responsibilities of Unit-level</th>
</tr>
</thead>
<tbody>
<tr>
<td>endorse collaborative administrative metrics structure, approve overall financial plan, identify and secure needed human and IT resources, determine changes to existing policies and procedures, endorse work of the University Administrative Team, and develop strategic communication</td>
<td>implement unit specific measures, analyze validity of unit measures, adjust unit specific optional measures as needed, ensure staff have received training and encourage ongoing training, evaluate how metrics have been integrated into unit management processes (Note: Unit leaders are not held accountable for metric outcomes during this stage)</td>
</tr>
</tbody>
</table>

### Trial Implementation
This phase allows central units to begin implementing policies and procedures of administrative operational metrics into their management functions. The following strategies will help achieve this phase.

<table>
<thead>
<tr>
<th>Responsibilities of University-level</th>
<th>Responsibilities of Unit-level</th>
</tr>
</thead>
<tbody>
<tr>
<td>realize metrics and analysis are still being tested by units and should not be used for decision making and/or accountability of unit; begin to integrate evidence-based decision making using administrative operational metrics in budgeting and compact processes at compact meeting, and review of unit performance; review unit's strategic plans for current and future initiatives</td>
<td>implement unit specific measures, analyze validity of unit measures, adjust unit specific optional measures as needed, ensure staff have received training and encourage ongoing training, evaluate how metrics have been integrated into unit management processes (Note: Unit leaders are not held accountable for metric outcomes during this stage)</td>
</tr>
</tbody>
</table>

### Full Integration and Assessment
This phase fully integrates administrative operational metrics and assesses and makes final adjustments to the processes. The following strategies will help achieve this phase.

<table>
<thead>
<tr>
<th>Responsibilities of University-level</th>
<th>Responsibilities of Unit-level</th>
</tr>
</thead>
<tbody>
<tr>
<td>transition from measuring central administrative unit performance to measuring management function performance in all units, conducts an assessment of implementation at compact meeting, review of unit performance, review unit’s strategic plans for current and future initiatives, administrative VPs and Vice Provost use metrics for decision making and accountability of unit leaders</td>
<td>prepare unit's strategic plans for current and future initiatives, including initiatives based on metric outcomes, administrative VPs use metrics for decision making and accountability of unit leaders, unit leaders hold staff accountable for unit performance</td>
</tr>
</tbody>
</table>

### Guiding Principles:
The following guiding principles should influence the execution of each strategy within each phase:

<table>
<thead>
<tr>
<th>Strategic Communication</th>
<th>Collaboration</th>
<th>Staff Development</th>
<th>Transparency</th>
<th>Reflection and Feedback</th>
<th>Criteria for Decision Making</th>
</tr>
</thead>
</table>

### Snapshot: Implementing Administrative Operational Metrics
Appendix Q
University’s Criteria for Decision Making
University’s Criteria for Decision Making

If the University is to become one of the top three public research universities in the world, and to achieve excellence in our coordinate campuses and other programs, we must more clearly align the University’s mission to each of its colleges, departments, and other academic units as well as administrative functions and units. We need to ask what the essential support needs to be for core teaching, research, and public engagement and which programs and services no longer fit within our goals, reasonable expectations, and resources.

In order for the University of Minnesota to stay strong and vibrant we must be able to review programs and establish priorities based on well-established criteria. The criteria below, established over the past 20 years at the University, continue to provide a solid framework for such reviews. These seven criteria, taken together as unified whole, offer useful measures to assess and improve the University.

1. **Centrality to Mission:** A program or service is more highly valued if it contributes significantly to the core mission of the University.

Each program or service should be evaluated in terms of its contribution to the University’s core mission. Centrality, or proximity to the core mission, is measured by the degree to which a program contributes to the following inter-related mission components:

- Teaching and learning should be an essential component of a high-quality, holistic undergraduate education or a high-quality graduate/professional education focused on deepening and broadening knowledge for the welfare of society.
- Research, discovery, and creative work should contribute significantly to the University’s overall excellence in creating and advancing knowledge and helping to stimulate and sustain related work elsewhere in the institution.
- Public engagement should relate to the University’s teaching and research missions and make significant connections between the needs of Minnesota, its citizens, the nation, and the world, and the University’s knowledge-based resources.

Funding of programs and services critical to the University’s mission should be a priority.

**Key Questions:**

A. To what degree is the substance of the activity pertinent to agreed-upon program needs, goals, and mission?
B. How essential is the program or activity to the University’s core mission?

2. **Quality Productivity, and Impact:** A program or service should meet objective and evaluative standards of high quality, productivity, public engagement, and impact.

Traditional measures for evaluating programs in higher education should be rigorously applied. For example, the quality, diversity, productivity, public engagement, and impact of the faculty and staff can be measured by peer national ratings, publications, outside funding, surveys, competitive awards, community impact, and other indices that describe important results and impact. The University also must more fully develop its own benchmarks (through the University’s annual Accountability Report) for measuring quality, productivity, public engagement, and impact.

**Key Questions:**

A. What are the most appropriate measures to apply?
B. Are measures being applied consistently and transparently
C. How do we measure the quality of a program or service?
D. How do we measure output, taking into account a blend of qualitative and quantitative assessments?
E. What is the impact of the program or service? How far does it reach?

3. **Uniqueness and Comparative Advantage:** A program should be evaluated based on characteristics that make it an exceptional strength for the University compared to other programs in Minnesota or at other peer institutions.

The University is committed to maintaining areas of distinctive strength that academic and administrative units have built over the years while recognizing new areas of potential advantage, particularly in interdisciplinary initiatives. This criterion is focused on high-quality foundation programs and services that build on the needs and resources of Minnesota, the nation, and the world as well as areas where further investment will yield significant return in intellectual quality and capital.

**Key Questions:**

A. What is the rationale for the program/service at the University of Minnesota?
B. Is the program/service a strength of the University in comparison to peer institutions?
C. Does the program/service contribute to the comparative economic or cultural advantages of Minnesota?
D. Is the program/service an essential component of a unique synergy of ideas and activities?
E. What would the loss, reduction, addition, or expansion of the program/service mean to the University, the state, and the region?

4. **Enhancement of Academic Synergies:** A program/service should be organized to promote and facilitate synergies that build relationships and interdisciplinary, multicultural, international and other collaborations.

Programs and services should be structured to leverage and create new synergies and do so in a cost-efficient manner. Dynamic, accountable organizational structures can result in additional resources for the highest priority activities while creating efficiencies to maintain core academic programs at a lower overall cost. This requires careful, strategic combinations of resources that enhance natural connections.

**Key Questions:**

A. Will the proposed structure add value to the intellectual climate of the program/service as well as creating cost savings?
B. Will the proposed structure better serve students, staff, and/or faculty?

5. **Demand and Resources:** Evaluation of a program or service should consider current and projected demand and the potential and real availability of resources for funding program or service costs.

Evaluation should include short- and long-term projections of change in demand for each program or service. Other indicators might include demographic and financial trends, number of applications, quality of acceptances, services performed in support of other programs, degrees awarded, instruction of students, or research undertaken for the solution of pressing problems of society. Programs or services should also be evaluated based on a reasonable generation of resources and to meet costs.
Key Questions:

A. Do accurate measures project a rise or fall in demand for this program or service over the long term?
B. Considering the University’s core mission, is there a need for the program, as distinct from a simple measure of demand for the program?
C. Does the program or service have sufficient resources to support it?

6. Efficiency and Effectiveness: A program or service should be evaluated based on its effectiveness and how efficiently it operates.

Programs and services should be operated to efficiently and effectively adapt to ongoing changing circumstances internally and externally. Consideration should be given to whether existing administrative functions and responsibilities could operate more efficiently and effectively through shared resources (e.g., student service at multiple levels, business processes, etc.). Consideration also should be given to leveraging human capital to most effectively use the special talents and expertise of faculty and staff. A critical aspect in evaluating programs/services is whether they achieve valued results and impact, in mission-related activities, in relationship to their costs.

Key Questions:

A. Can valued functions be performed at less cost within a new structure or with the aid of alternative strategies (e.g., technology)?
B. Will functions be performed more efficiently and effectively at the unit level, with shared coordination among units, or system-wide?
C. Are the organizational outcomes achieved at acceptable levels of quality and cost?
D. What is the next best alternative use of the resources?
E. Does the program have a clear business plan and a balanced budget?
F. Does it deliver service at the right level, in a timely manner, and at the right cost?
G. Are we identifying core competencies and assigning responsibilities and designing structure based on them?
H. Are decisions being made at a level where there is expertise, experience, and information?

7. Development and Leveraging of Resources: Any new or existing program or service should be evaluated on its potential to develop new resources and leverage existing resources.

Resources needed to support academic research, education, and public engagement are derived from a wide range of public and private sources, and may include more than monetary resources. Ongoing evaluation of priorities and related, internal shifts of resources to areas of higher priority may be required.

Key Questions:

A. Will a revised or new program create new opportunities to expand the University's quality and range of public contributions?
B. Is the program strongly connected to other academic units so that resources and opportunities are expanded for research, education, and connection of the University to public needs?
C. Are there opportunities for additional resource growth and leveraging that we are not taking advantage of?
D. Are revenues placed in the most appropriate organizational setting to achieve desired results?