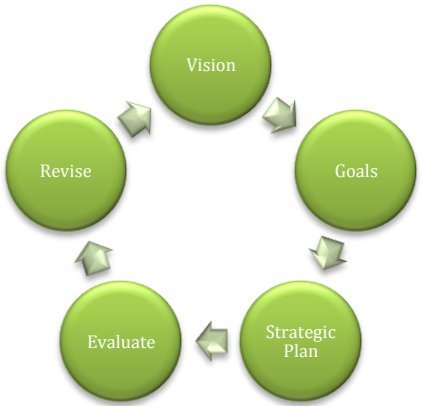
Action Project: A Process for Managing NMU's Strategic, Operational and Resource Performance

PROJECT DESCRIPTION

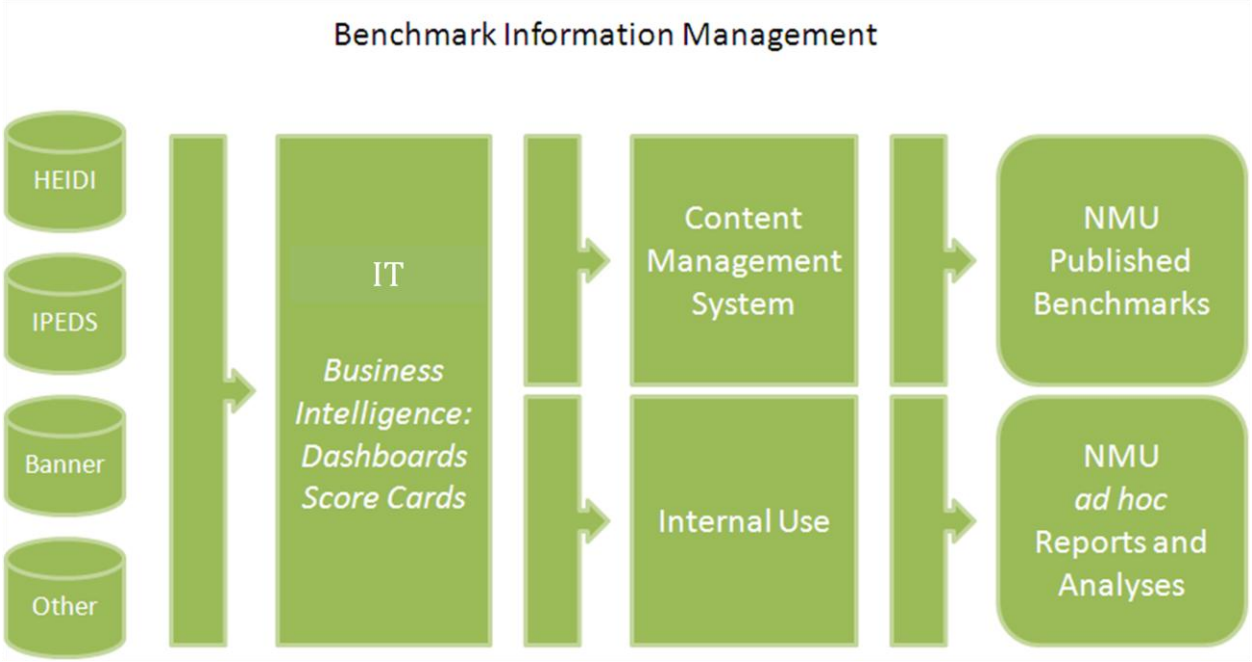
This project will develop and implement an information technology based Knowledge Management System (KMS) for Northern Michigan University to enable the administration, staff, and faculty to have ready access to NMU's documented base of facts, sources of information, and analysis. This system will permit users to do ad hoc analyses and reporting. The system will be constructed by primarily using existing software tools and information systems that are currently supported by the university. The project will include documenting the process for using KMS to monitor, analyze, and communicate university performance related to its strategic, operational and resource management efforts.

INTRODUCTION

This work is an outgrowth of our previous Action Project: **Benchmarking the NMU Road Map to 2015 Action Project** in which we described a substantial list of potential benchmarks and an overall management plan. Benchmarks are only a part of our Quality Improvement Processes. Quality improvement follows a well established path that begins with a vision and mission and leads to a series of deliberate steps to manage growth. The power of continuous quality improvement is that it gives us an incremental methodology that breaks the achievement of our mission into smaller steps. These are portrayed in the scheme below.



The "Benchmarking" action project outlined a way to systematically provide the means for data-driven decision making. We created a very large number of potential metrics and benchmarks but we understood crucial follow-on planning would be required to develop a delivery mechanism to support the planning paradigm, above. We proposed that the delivery mechanism for our Knowledge Management System would look like this:



The diagram encapsulates these ideas:

- External data sources (HEIDI and IPEDS)
- Internal data sources (Banner, other)
- Database software tools managed by our Information Technology (IT) division to create analyses of the data
- Delivery mechanisms
    - The University's Content Management System to communicate with students, employees and the public
    - Various tools for creating and delivering reports for private consumption

This Action Project picks up where the previous project ended. This action project develops the operational details needed to move the schematic into a functioning system that guides planning at Northern Michigan University. Moreover, we have recommended a set of metrics with which to initially populate the system.

PROCESS

The KMS team began its work during the 2009 fall semester in accordance with the timeline in our proposal for this Action Project:

1. **October - December:** Inventory existing performance information from internal and external sources, and review how it is maintained (measures, reports, data bases)

- **Early January:** Agree upon a conceptual framework
- **Late January:** Design the appearance of the KMS, including
  - Portfolio formats

- Portfolio organization - Function
- Portfolio organization - Perspectives/Conceptual Framework
- Access

- **Late January:** Identify software tools to be used to support KMS, including
  - Banner
  - Oracle
  - Cognos
  - iDashboards
  - Corda
- **Late January:** Map measures to identify relationship and where they should be included in portfolios
- **Mid February:** Define process for monitoring, analyzing and communicating performance
- **March:** Finalize KMS design and performance management process
- **Late May:** Develop and implement measures, portfolios, and website for KMS
- **June-August:** Let users "debug" system, suggest improvements/changes
- **September:** Write AQIP Final Report

The timeframe for completing the project is very ambitious. The Knowledge Management System is a complex collection of data, software tools and user experiences, each of which builds upon the others. We were able, nonetheless, to address each of the elements in the plan, and successfully launch "version 0.9" for users to debug in late August, 2010. As we will describe later, we developed a process to continuously improve the KMS system to ensure it will become part of the fabric of the University.

REPORT AND RECOMMENDATIONS

We will use the topics in the timeline to structure this report. The topics are naturally organized into six sections:

1. *Definitions*
2. *Conceptual Framework for the KMS*
3. *The metrics and benchmarks for the KMS*
4. *Initial Implementation*
5. *The process for maintaining the KMS*
6. *User Manual*

Section 1: Definitions

Benchmarks, targets and metrics are typically part of a discussion about planning, but these terms are not used consistently. For example, we might be asked "what is your benchmark for enrollment next year?" with the understanding we are being asked for target value. In another context, we might be asked, "what are your benchmark institutions?" with the understanding we are being asked about comparisons with other universities. Or, we might be asked "have you benchmarked current performance before you start the new program?" with the understanding we are being asked about the current state of affairs.

For our purposes, we will use these terms as follows:

A *metric* is something we can measure. For example:

- The number of freshmen enrolled in a given year and semester
- The average FYES per FTETF for our 9 peers in a given year
- The average FYES per FTETF at NMU in a given year

FYES is Fiscal Year Equated Students
FTETF is Full-time Equated Teaching Faculty

A *benchmark* is comparative value for a metric. For example:

- There were 2,895 freshmen enrolled in the 2009 fall semester versus 2,944 in the 2008 fall semester
- The average FYES per FTETF for our 9 peers in 2009 was 17.6
- The average FYES per FTETF at NMU in 2009 was 20.3 versus 20.7 in 2008

A *target* is a goal value for a metric. For example:

- The target for freshman enrollment for the fall of 2010 is 2,950
- The target for the overall credit load is 13.5 for the 2010 fall semester
- The target for the for FYES per FTETF at NMU is to be within 10% of our 9 peers in 2015

Note especially that the comparative value for a benchmark can be internal or external. An internal benchmark will typically be temporal in nature; how does this year compare with last year, for example. An external comparative value for a benchmark would typically come from our peer institutions.

Finally, IT is the acronym for "Information Technology" which is the university's division that provides hardware and software technology solutions to students, faculty, staff and alumni to satisfy their needs for information and secure automated, self-service processes. IT will have the responsibility for maintaining the system.

Section 2: Conceptual Framework

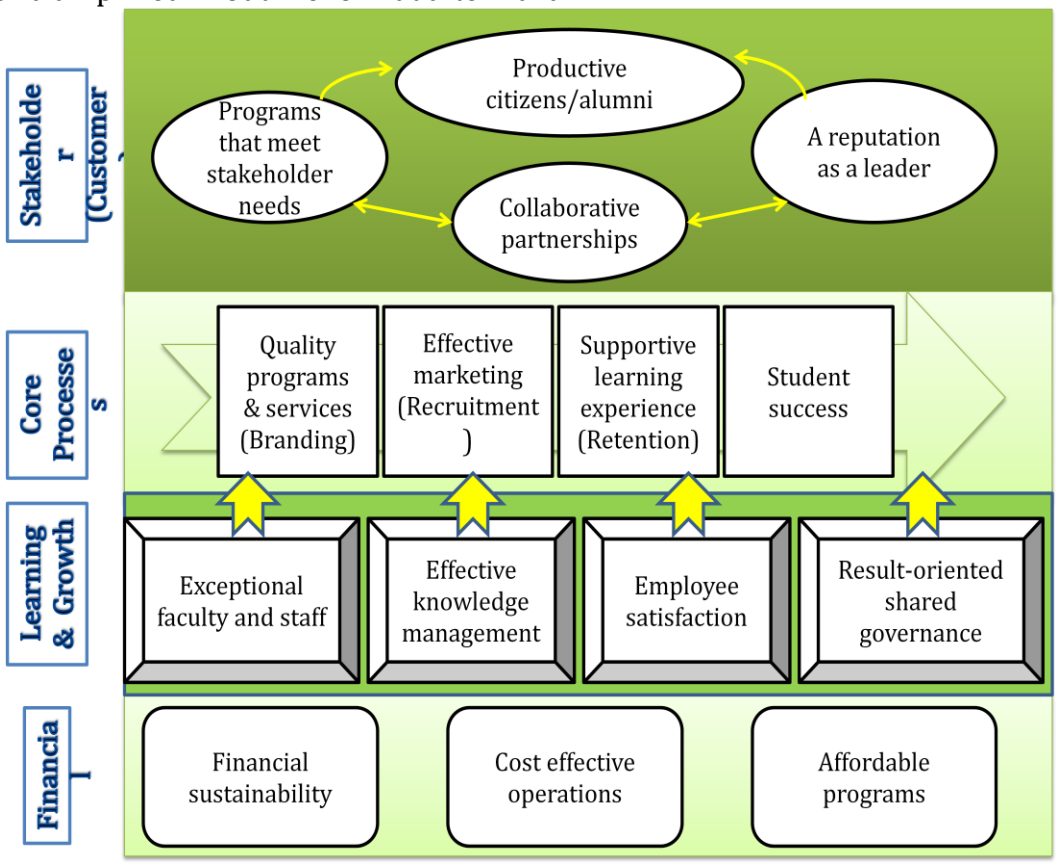
Our Knowledge Management System (KMS) is not just a collection of tables and graphs; it is purpose driven. The KMS is a key element in our ongoing assessment of the goals we set forth in our Road Map to 2015 (http://www.nmu.edu/roadmap2015/) and the principles against which our accreditation is founded (http://www.hlcommission.org/aqip-categories/aqip-categories.html)

The conceptual framework is intended to be an overarching statement that will guide the evolution of the KMS in the coming years. Because of its comprehensive nature, we understand that we will not be able to address every element when the system is first rolled out to the campus. We have nonetheless, attempted to provide sufficient detail to guide the choice of metrics and their associated benchmarks that will be added over time. Our aim is to provide this focus as a defense against the tendency of data systems to become collection of "stuff."

Our conceptual framework is organized around four perspectives:

1. *Stakeholders*
2. *Core Processes*
3. *Learning and Growth*
4. *Financial*

Each of these perspectives is driven by a number of considerations depicted in the diagram below and amplified in outline format afterward.



Stakeholder (Customer) Perspective: What stakeholder needs must we serve?

- Productive citizens/alumni (NMU vs. Peers)
  - Time to graduation
  - Time from graduation to employment
  - % graduates who obtain employment in major
  - % graduates who go on to graduate school
  - % graduates who pass licensure tests
- Programs that meet stakeholder needs
  - Student satisfaction - faculty evaluations
  - # of majors in discipline
  - # of students on wait list
  - # of maximum enrolled courses
  - National student satisfaction surveys
- A reputation as a leader
  - University of choice – selectivity compared to peers
  - Market share
  - Reputation in region
    - Upper Peninsula
    - Counties
  - Ratings by national groups
- Collaborative partnerships
  - Major UP employers
    - Training
    - Internships
    - Cooperative grant applications
  - Universities and community colleges
    - Cooperative programs, grant applications
    - Articulation agreements and % credits accepted
  - UP and Northern LP K-12
  - UP and Northern LP hospitals and medical centers
  - UP and Northern LP cities and counties
  - State agencies

Core Processes: In which internal processes must we excel?

- Quality programs and services (Branding)
  - Recognized for excellence
    - National rankings
    - National, regional and state awards
- Effective marketing (Recruitment)
  - Market share
    - First-time full-time freshman
    - Transfer students
    - Graduate students
  - Selectivity
- Supportive learning experiences (Retention)
  - Student engagement

        - Superior Edge
        - Student organizations
    - Student drop and adds and withdrawals
    - Student financial stress
    - Student faculty evaluations
    - Service surveys – level of satisfaction
- Student success
    - Classroom success
        - % undergraduate students C+ by semester (drill down by discipline)
        - % graduate students B+ by semester (drill down by discipline)
        - % students plus or minus prior semester GPA
    - Past due receivables
        - Time and amount
    - Student indebtedness
    - Student graduation audits

Learning and Growth: How must NMU learn and innovate?

- Exceptional faculty and staff
    - Faculty with terminal degrees
    - Staff level of educational attainment
    - Grant applications and success
    - Faculty and staff external awards and recognition
    - Scholarship
    - Training and professional development
- Effective knowledge management
    - % of students, faculty, and staff access (notebook or desktop) to knowledge system
    - % of students, faculty, and staff access on-campus/off campus
    - % of time system is available
    - # of help desk calls and nature
    - # of service calls/repairs and nature
- Employee satisfaction
    - Staffing levels compared to peers
    - Employee surveys and evaluations
    - Retention levels
    - Compensation compared to peers
    - Grievances
- Result-oriented shared governance
    - Access to information
    - Student, faculty, staff participation in decision making (Committee structure)
    - Communications to campus
    - Timeliness of decision making

Financial: What financial objectives must we accomplish?

- Financial sustainability
  - Net tuition and fees (less financial aid and bad debts)
  - State appropriations
  - Grants and contracts
  - Net room and board (less financial aid and bad debts)
  - Change in net assets
  - Cash and short-term investments
  - Long-term debt
  - Deferred maintenance/invested in physical plant
- Cost effective operations
  - % of tenured and tenure earning faculty
  - Faculty mix (staff mix) to peers
  - Productivity
  - Compensation compared to peers
  - Space utilization
  - Course enrollments
  - Energy consumption
  - Net income (loss) (drill down by program)
- Affordable programs
  - Tuition and fees compared to peers
  - Room and board compared to peers
  - Tuition discounting compared to peers
  - Student average cost of books
  - Financial aid – compared to peers
    - NMU
      - Merit
      - Need
    - State & federal

Section 3: Metrics and Targets

We recommend that the Knowledge Management System be comprised of four kinds of information:

1. ***Trend Information***
2. ***Benchmarking Information***
3. ***Environmental Scan Information***
4. ***Northern Michigan University Profile Information***

Trend Information (TI) would be historical data available on Banner. The focus is on NMU trends and should monitor those areas that are of primary importance and that have been identified in Conceptual Framework, Road Map and AQIP. These data would most likely be updated on an annual basis, normally at end of fiscal year. To the extent possible this part of the Knowledge Management System should include the info that is normally included in the AQIP System Portfolio. There would be a series of

graphs/charts, similar to those presented in the "Benchmark" action project. This information should focus on operational, strategic, and financial goals.

Benchmarking Information (BI) would compare NMU to peers over a period of time. Information would be gathered from external databases (for example, HEIDI). Again the information maintained should focus on areas identified in Conceptual Framework, Road Map and AQIP. Information would normally be updated annually. This information should focus on operational, strategic, and financial goals.

Environmental Scan Information (ESI) this part of the KMS database would include information that shows trends in K-12 enrollments in areas that NMU recruits, UP and Northern LP business information, population information for primary recruitment areas, market shares of peer institutions. The information would be from external databases and updated annually. This information should be used to assist in strategy development.

NMU Profile Information (NMUPI) would include: mission, vision, Road Map, current levels and trend information about NMU students, faculty, staff, facilities, land, athletics, number of academic programs, departments, and divisions, and key financial information. We might look to the AQIP Systems Portfolio for a structure for organizing the information. Much of this is already included in the Institutional Research web site. The information would be updated on a current basis. In other words, if something changes, the website would be updated. This would be information that is used frequently to help describe NMU.

The five KMS databases identified above would be accessed through a single web site.

Section 4: Implementation

CHOOSING A PLATFORM

The KMS team conducted onsite evaluations of two delivery platforms: 1) iDashboards and 2) Cognos Business Intelligence and Performance Management Software Tools. The decision was to standardize on the Cognos product. Both systems offer appropriate reporting metaphors (red, yellow, green icons, trend analysis and drill-down, for example) and both have robust tools for creating a compelling user interface. The University already has a base installation of Cognos tools and this was the deciding factor in choosing the Cognos software.

CHOOSING THE METRICS, BENCHMARKS AND TARGETS FOR THE KMS

As explained in Section 2, we recommend that the elements in our Knowledge Management System be organized into these four broad categories:

1. ***Trend Information***
2. ***Benchmarking Information***
3. ***Environmental Scan Information***
4. ***Northern Michigan University Profile Information***

While the Knowledge Management System will incorporate each of these kinds of data, we recommend that a priority be given to the first category, *Trend Information*. We have a wealth of data that can be put in a time series format which will permit us to quickly share a lot of information with planners. Furthermore, trend information simultaneously incorporates a default benchmark. We will be able to compare our current performance with that of last year and previous years.

We understand the limitations of using ourselves as the sole performance benchmark and we will move quickly to establish targets that reflect the world outside Northern Michigan University. Our reasons for focusing on trend information are purely pragmatic. We need to inform our various planning processes about the Knowledge Management System, and provide a mechanism for them to establish benchmarks and targets. It is important that the various divisions throughout the University have ownership in the system. Central that sense of ownership is the assumption that users will have a say in what we measure, how we establish comparative data and what goals we set. Our primary goal is to create the system that will support these choices.

METRICS

The KMS Team evaluated a large number of possible metrics and recommends that the KMS system be initially populated as follows

ENROLLMENT –

Current year:

1. Percentage increase/decrease in student count and credit hours by academic department compared to same semester prior year. Graph format. (Get sample)
2. Percentage increase/decrease in under represented student count and credit hours compared to same semester prior year.
3. Percentage increase/decrease in international student count and credit hours compared to same semester prior year.
4. Percentage increase/decrease in non-international students enrolled in study abroad programs compared to same semester prior year.

Next year:

5. Percentage increase/decrease in student applicants, admits, and orientation fees by recruitment region compared to same time prior year. (Get sample) Rank high to low.
6. Percentage increase/decrease in prospective under-represented students paid orientation fees compared to same semester prior year.
7. Percentage increase/decrease in prospective international student paid orientations fees compared to same semester prior year.

STUDENT SUCCESS-

Current year:

1. Percentage increase/decrease in First-time Full-time Students completing Fall and Winter semesters meeting or exceeding their **Predicted Success Factor (PSF)**. (Predicted success factor would be developed using ACT and High school GPA- Paul Duby has done a number of studies on student success and his research could be used to develop PSF)
2. Percentage increase/decrease in Fall to Winter semester enrollments by majors.
3. Percentage of students graduating within program time frame. Ranked high to low.
4. Percentage increase/decrease in withdrawals compared to prior semester.

Next year:

1. Percentage increase/decrease in prospective students who have paid their orientation fee grouped by PSF within recruitment region.

FINANCIAL-

Current year:

1. Percentage increase/decrease in monthly and year-to-date operating revenues compared to prior year. (Drill down on major operating revenue categories with same calculation. Include:
   - **a.** Gross student tuition and fees
   - **b.** Grants and contracts
   - **c.** Sales and services of educational activities
   - **d.** Residence life
   - **e.** Dining Services and Conferences
   - **f.** Other auxiliary
2. Percentage increase/decrease in monthly and year-to-date non-operating revenues compared to prior year. (Drill down on major non-operating revenue categories with same calculation.
   Include:
   - **a.** State appropriation
   - **b.** Pell grants
   - **c.** Gifts
   - **d.** Investment income
3. Percentage increase/decrease in monthly and year-to-date expenditures compared to prior year. (Drill down on major expense categories with same calculation.)
   Include:
   a. Established labor
   b. Other labor
   c. Supplies, materials & services (net of utilities and financial aid)

   d. Utilities
   e. Financial aid
   f. Equipment
   g. Cost of goods sold
   h. Contingency
   i. Expenditure credits
   j. Transfers
4. Budget vs. actual?? Revenues
5. Budget vs. actual?? Expenditures
6. NMU Foundation Gifts Recognized compared to prior year period?
7. Monthly/Annual days cash on hand
8. Liquidity ratio monthly and yearly (See Moody's document)
9. Percentage increase/decrease in receivables (Current assets) compared to prior year.
10. Percentage increase/decrease in current liabilities compared to prior year.

HUMAN RESOURCES-

1. Percentage increase/decrease in regular employee headcount as of for month compared to prior year. (Drill down by employee group)
2. Percentage increase/decrease in temporary employee headcount as of for month compared to prior year. (Drill down by employee group)
3. Percentage increase/decrease in vacant positions for month compared to prior year. (Drill down by employee group)

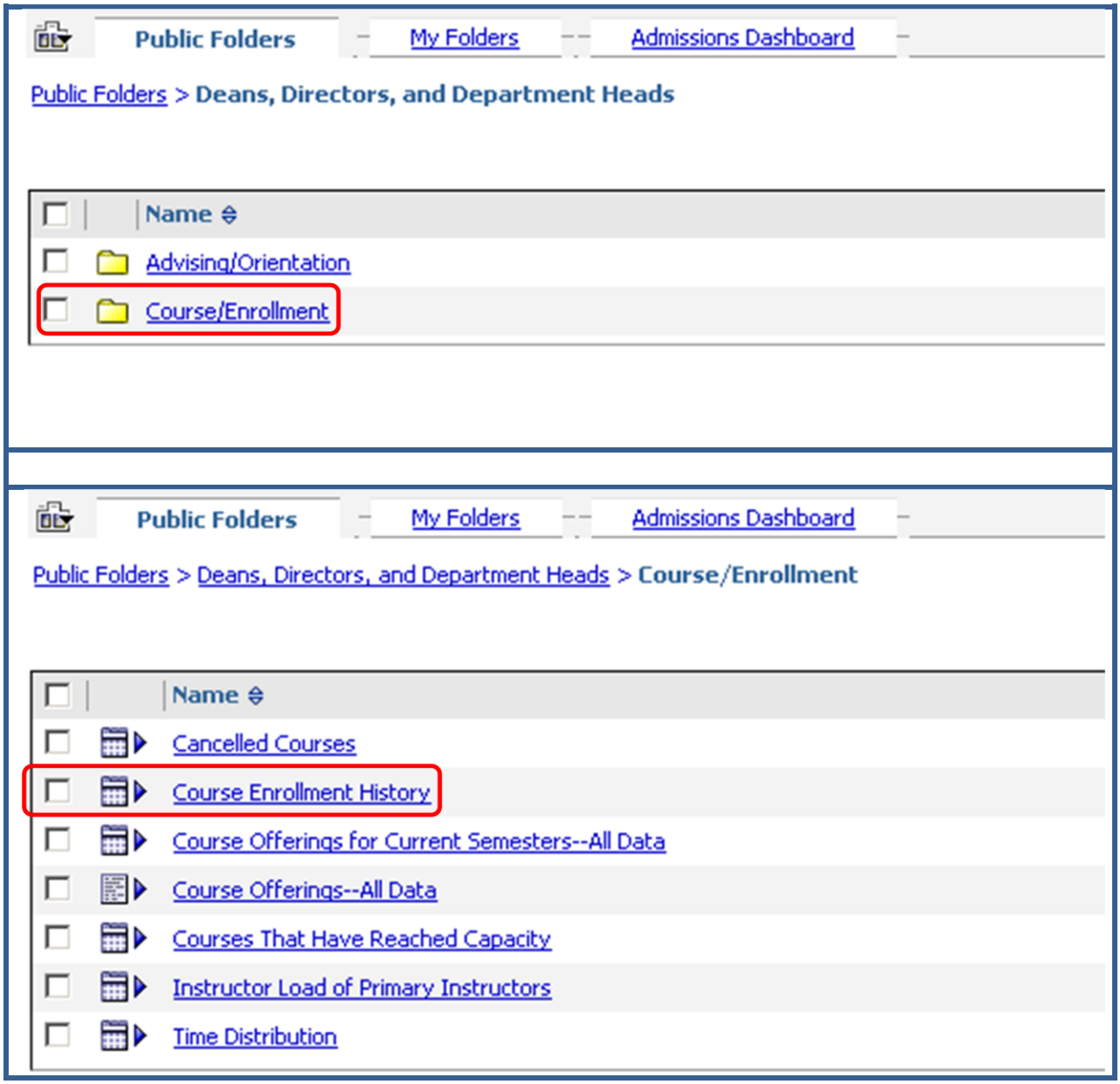
AD HOC INFORMATION

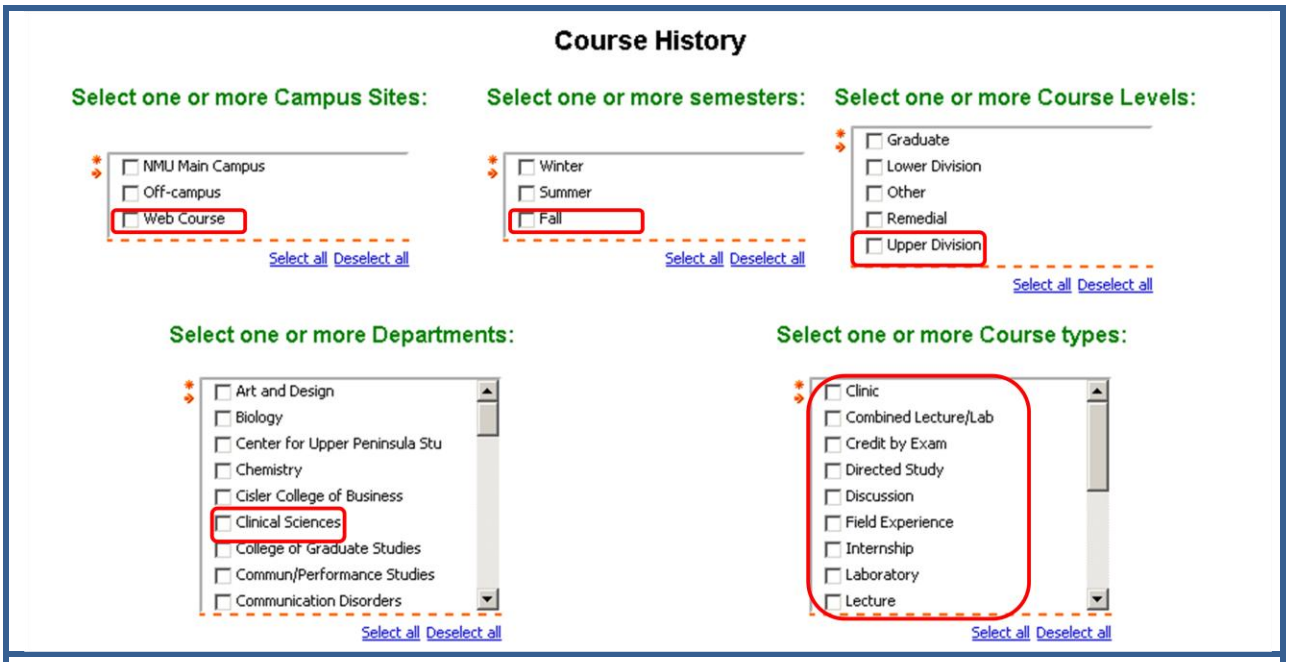
A key design requirement for the Knowledge Management System is to provide users with tools to for dynamic data exploration as opposed to relying on standard reports. We do not wish to diminish the importance of standard reports. Indeed, we anticipate that most users of the KMS will use standard reports most of the time. But, there are important instances when planners will want answers to questions for which they have greater control over input parameters.

An important milestone was achieved during the 2010 winter semester with the launch of an online site for academic administrators. The system was created by IT after extensive discussions within the Academic Affairs Division about the information needed to manage our course offerings.

The following images illustrate the enormous flexibility of the system. The instance portrayed shows how an administrator could develop a course enrollment history for

- *fall semester,*
- *upper division,*
- *web courses,*
- *offered by our Clinical Laboratory Sciences Department.*





Enrollment History

Department	Course	AY	Offered	Number of Sections	Sum of Cap	Sum of Actual	Sum of SCH
Clinical Sciences	CLS 302	2006	Fall 2005	1	12	9	18
		2007	Fall 2006	1	15	16	32
		2008	Fall 2007	1	20	17	34
		2009	Fall 2008	1	20	6	12
		2010	Fall 2009	1	20	10	20
	CLS 304	2006	Fall 2005	1	12	10	20
		2007	Fall 2006	1	12	9	18
		2008	Fall 2007	1	20	17	34
		2009	Fall 2008	1	20	3	6
		2010	Fall 2009	1	20	5	10
	CLS 402	2011	Fall 2010	1	20	9	18
	CLS 404	2011	Fall 2010	1	20	12	24
	CLS 410	2011	Fall 2010	1	30	29	29
	CLS 420	2006	Fall 2005	1	20	19	19
		2007	Fall 2006	1	25	22	22
		2008	Fall 2007	1	25	21	21
		2009	Fall 2008	1	25	18	18
		2010	Fall	1	25	23	23

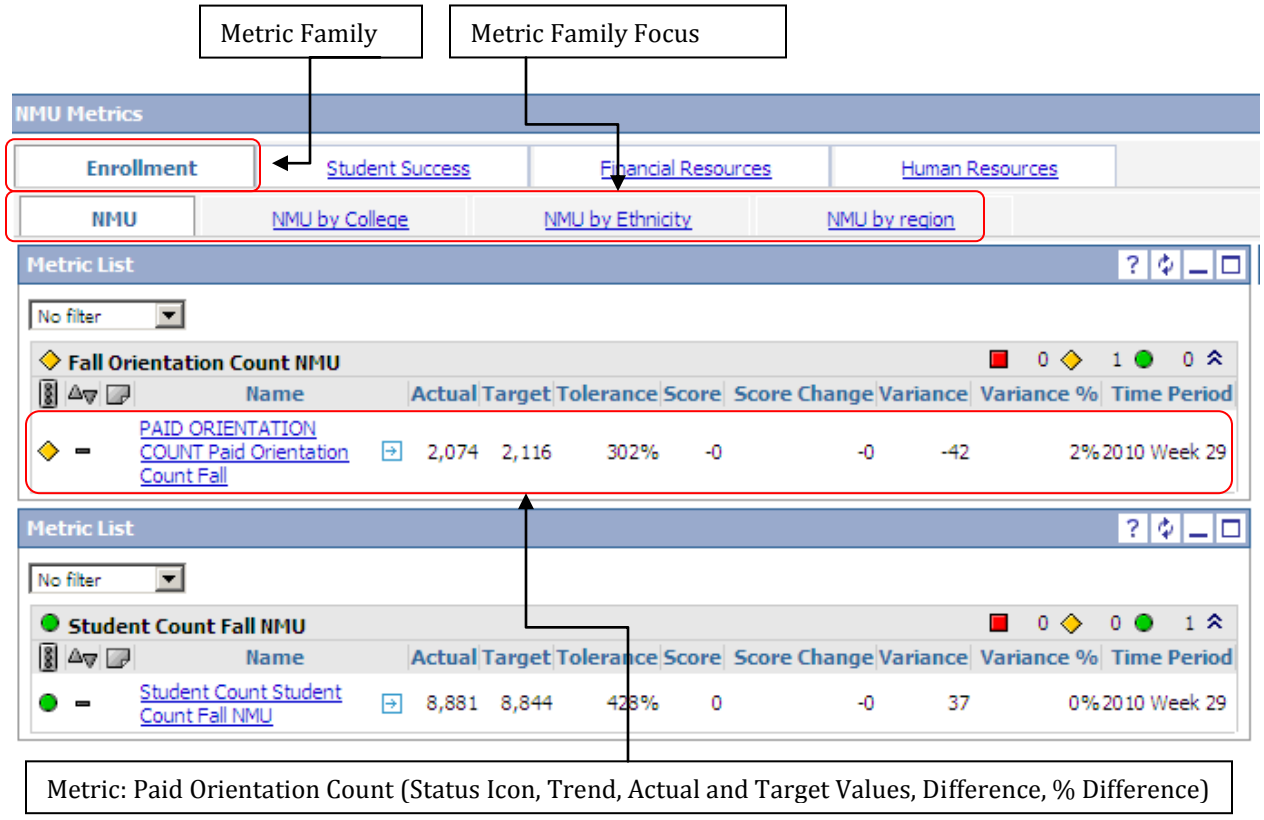
			2009				
		2011	Fall 2010	1	25	25	25
	CLS 495	2010	Fall 2009	1	30	12	12
Grand Total				**20**	**416**	**292**	**415**

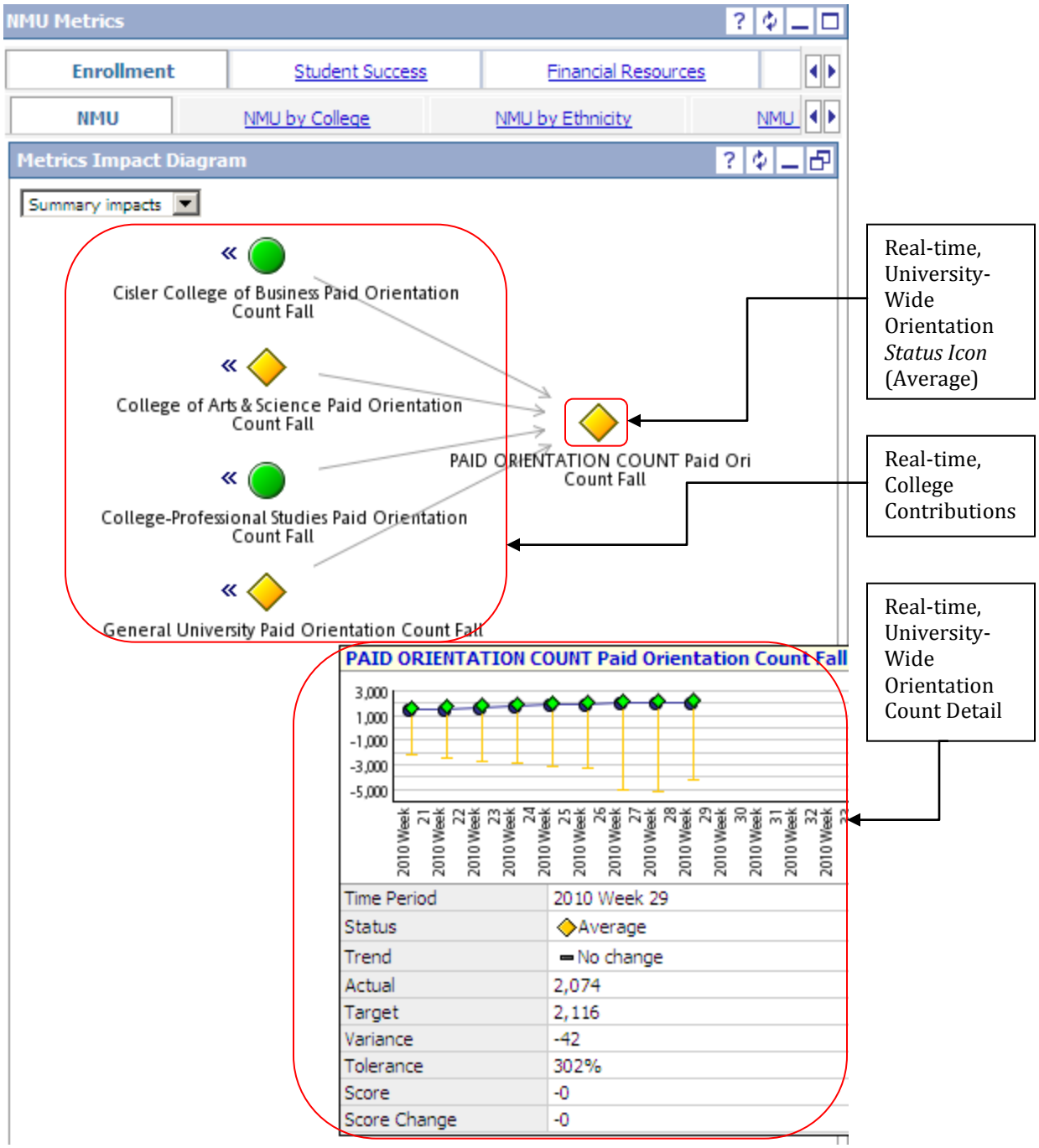
There are literally thousands of parameter combinations like those illustrated that can be entered into the system. In addition IT created an accessible data base of *all* courses we have offered since 2004, each record of which contains 41 fields. With this data base it is possible to use software tools such as pivot tables to explore a diverse range of inquiries from the time-of-day distribution of our courses to internships.

THE ROLL-OUT

The Team has begun extensive field testing of our Knowledge Management System. Our first users are academic deans and selected department heads. As with the ad hoc system just described, our KMS is password protected, and so we illustrate its first steps with the aid screen shots.

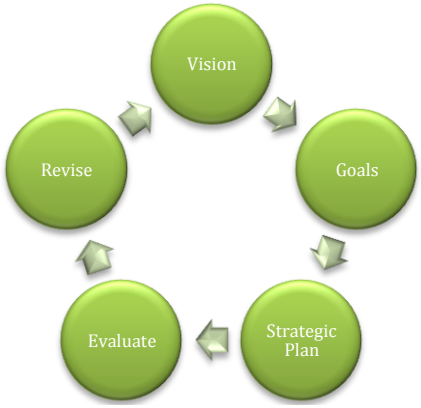
The scenario presented depicts the experience of a logged on user who has navigated to the NMU Metrics site. The next slides follow the choices necessary to view the current summer orientation counts for new freshmen.




NMU Metrics
Enrollment
Student Success
Financial Resources
NMU
NMU by College
NMU by Ethnicity
NMU
Metrics Impact Diagram
Summary impacts
Cisler College of Business Paid Orientation Count Fall
College of Arts & Science Paid Orientation Count Fall
College-Professional Studies Paid Orientation Count Fall
General University Paid Orientation Count Fall
PAID ORIENTATION COUNT Paid Ori Count Fall
PAID ORIENTATION COUNT Paid Orientation Count Fall
3,000
1,000
-1,000
-3,000
-5,000
2010 Week 21
2010 Week 22
2010 Week 23
2010 Week 24
2010 Week 25
2010 Week 26
2010 Week 27
2010 Week 28
2010 Week 29
2010 Week 30
2010 Week 31
2010 Week 32
Time Period 2010 Week 29
Status Average
Trend No change
Actual 2,074
Target 2,116
Variance -42
Tolerance 302%
Score -0
Score Change -0
Real-time, University-Wide Orientation *Status Icon* (Average)
Real-time, College Contributions
Real-time, University-Wide Orientation Count Detail

Section 5: The Knowledge Management System Process for continuous improvement

The Knowledge Management System is intended to facilitate the ongoing planning cycle under way in the various university divisions:



This cycle applies to the KMS as well!

CONTINUOUS QUALITY IMPROVEMENT

The Team recommends that the operational responsibility for the KMS reside with the Administrative Information Technology Division (IT). With other divisions on campus, IT already has a quality improvement process in place. We suggest this process be augmented as follows:

1. That IT create a data advisory group consisting of staff from IT as well as representatives from beyond the division:
    a. to prioritize requests for additional metrics, benchmarks or targets
    b. to recommend hardware or software upgrades
    c. to recommend changes to the "look and feel" of the KMS

    The University divisions to be represented on the advisory group will be
    - *Academic Affairs*
        - *Academic Deans (2)*
        - *Department Heads (2)*
        - *Institutional Research*
    - *Finance and Administration*
        - *Budget Office*
        - *Auxiliary Services*

    Members from each division will be selected by the appropriate Vice President

2. That IT provide orientation training on the system to new users and periodic refresher courses for all users. During the training sessions, IT will secure the recommendations of the participants for improving the system.

3. That IT periodically, but not less frequently than bi-annually, assess the KMS in terms of
    a. comparability with peer institutions
    b. satisfaction of NMU users of the system

    This assessment will become an element in the overall assessment materials submitted by the unit.

Section 6: User's Guide

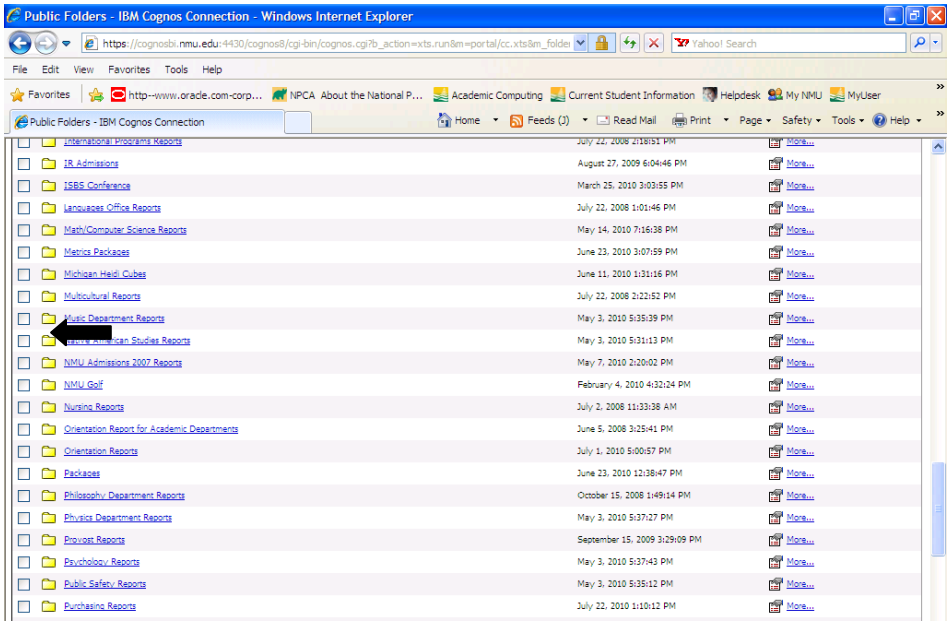
The Knowledge Management System (KMS) User's Guide provides information about how to access and use the Northern Michigan University KMS. The KMS is a collection of key performance indicators (KPIs) presented in dashboard format. The KPIs are divided into four key areas: Enrollment, Student Success, Financial Resources, and Human Resources. Each area presents a set of KPIs that were developed by a team of people from the university charged with completing this project.

Note: Questions about using or accessing the KMS should be directed to the Director of Information Services in the Department of Information Technology at (906) 227-1272.

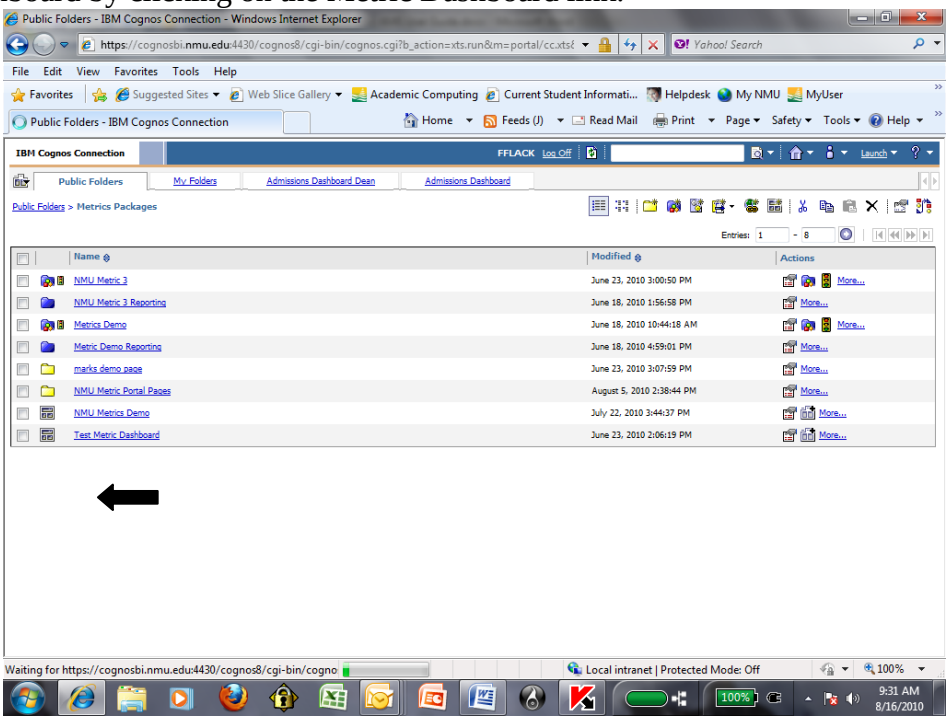
Accessing the Dashboard

To access the KPI Dashboard follow these steps:

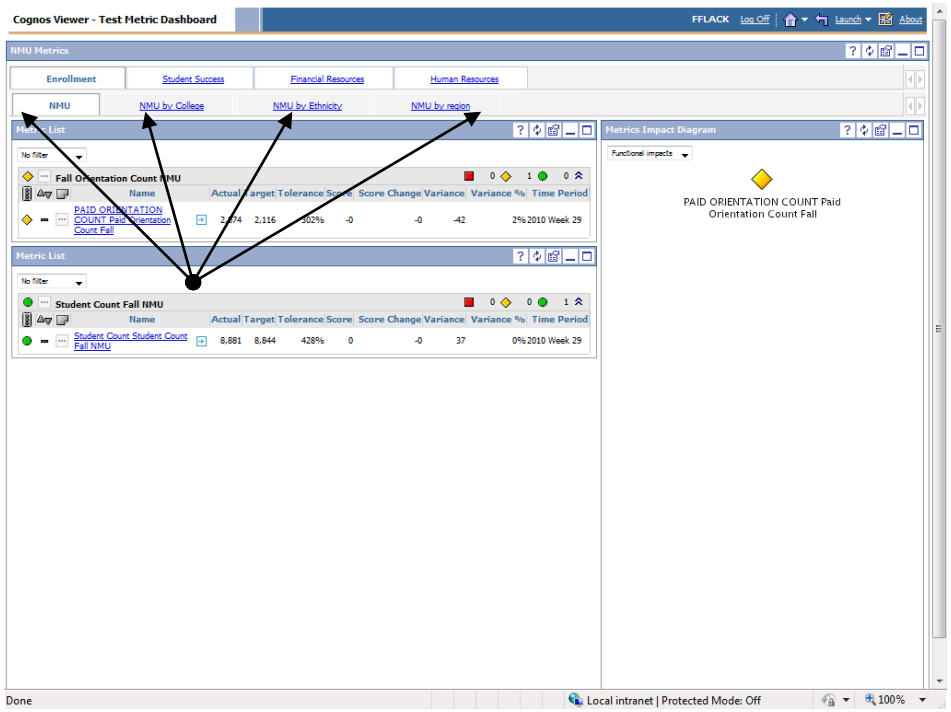
- From a web browser go to http://cognosbi.nmu.edu and log in.
- Click on "Cognos Content".
- Find the folder called 'Metrics Packages' and open it by clicking on the Metrics Packages link.



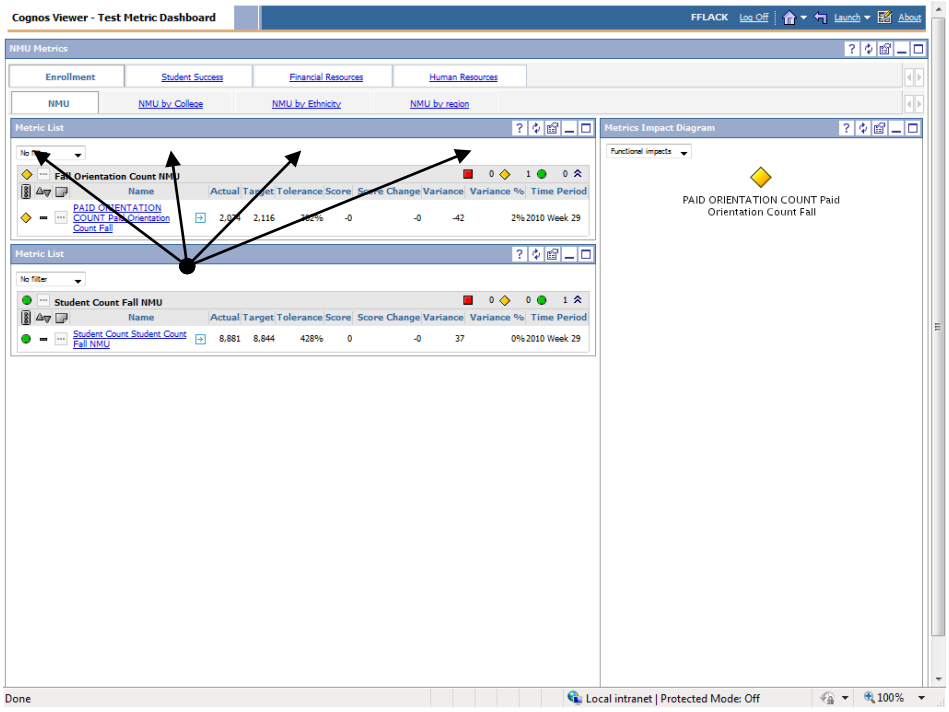
Open the dashboard by clicking on the Metric Dashboard link.



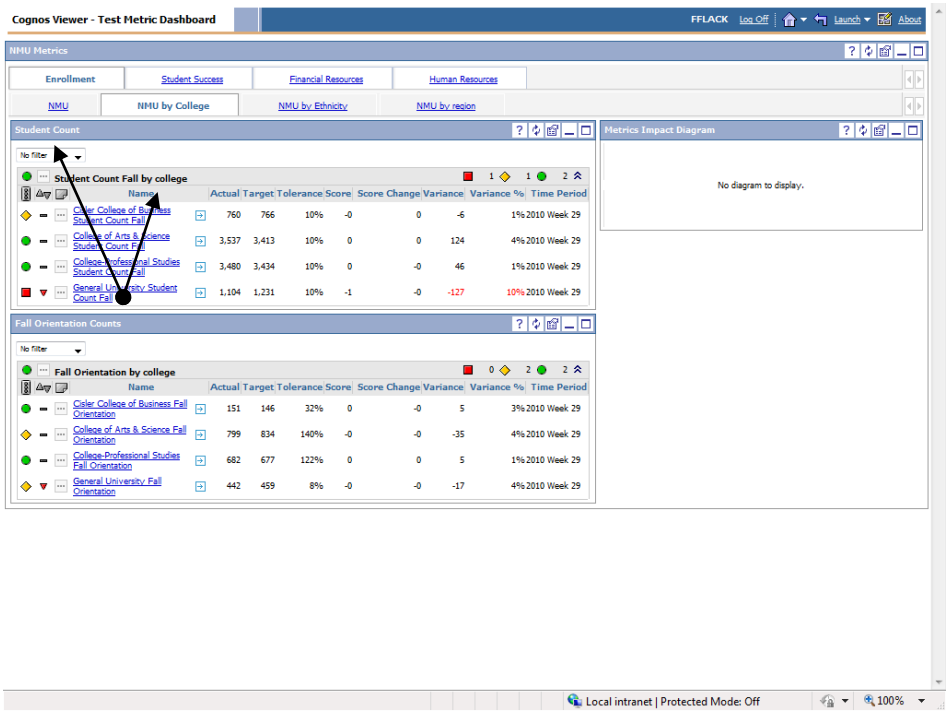
The top tabs, Enrollment, Student Success, Financial Resources and Human Resources, represent the Metric Family



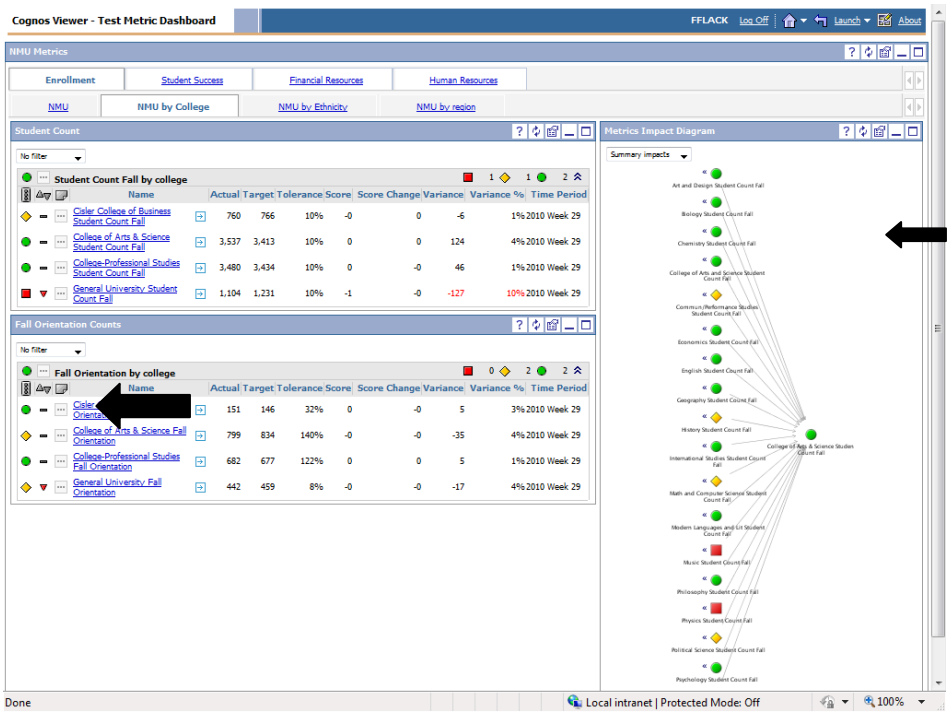
The Metric Family Focus is shown in the second row of tabs.



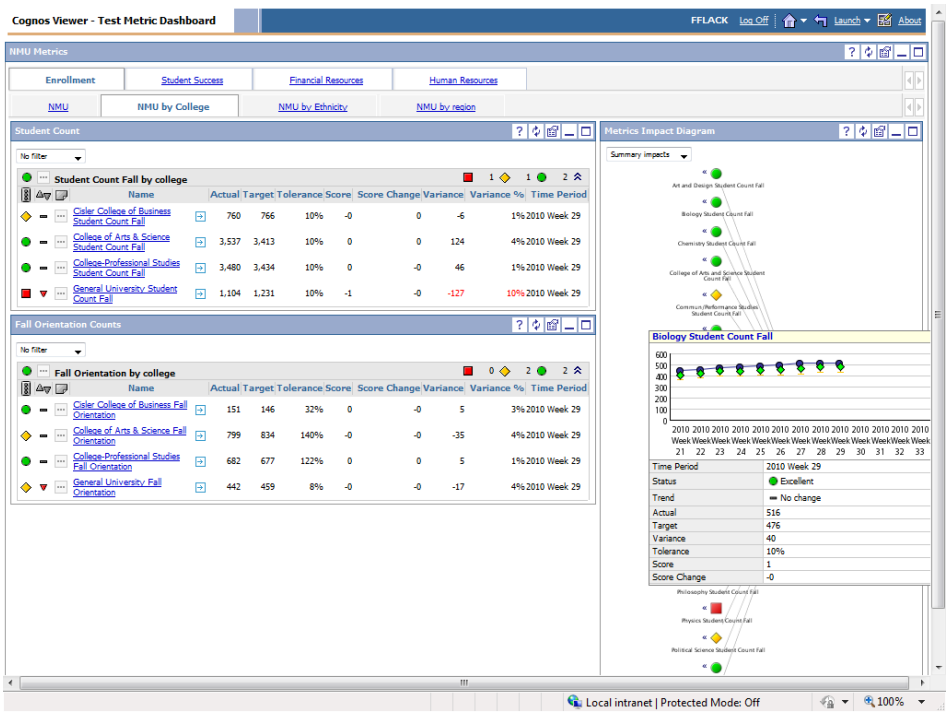
Select the desired Metric Family and Metric Family Focus by clicking on each tab.



Double click a link under Student Count or Orientation Count to display the metrics for a particular college. The Metrics Impact Diagram appears and corresponds with the college that was selected. Select Summary Impacts to show the impact for each department within the College.



Using your mouse, hover over the department indicator in the Metrics Impact Diagram to show the trend diagram. In the trend diagram, the green diamond represents the target, the blue circle represents actual.



DEFINITIONS

Status Indicator

A status indicator is graphical representation of the performance of a metric. The status assigned to a metric is based on the score calculated for that metric. Status indicators indicate performance as follows:

Green - one tolerance or more above target
Yellow - within one tolerance above or below target
Red - more than two tolerances below target

Score Calculation

The status of a metric is determined by its score. A score is a numerical representation that determines whether a metric is on target, above target, or below target, and by how much. Whether a metric is above target or below target is determined by the tolerance value set for the metric. The default tolerance for metrics is 10% above or below target.
Scores can be calculated as a global setting from the target, actual, and tolerance values of a metric or they can be calculated using thresholds defined by targets and user-defined columns.

Trend

A trend indicator in Metric Studio shows the direction of change in the performance of a metric, that is, whether it is improving, staying the same, or getting worse. Trends are determined by comparing performance over time.

Tolerance

A tolerance value defines an acceptable range for a result that deviates from a set target.

Target
A target value defines a level of expected performance.

APPENDIX - PROJECT TIMELINE DETAIL

Our project was organized to fulfill the expectations as described by the timeline as we submitted it. The record below describes the progress in somewhat more detail.

Major tasks and timeline:

- *Agree upon a conceptual framework - Complete by December 15, 2009*
  Completed - December, 2009
- *Design the look and feel features of the KMS – Complete by December 31, 2009*
  Completed - April, 2010
  The look and feel of the KMS is dependent upon the software, therefore the tools were evaluated and a selection was made before designing the look and feel.
    - *Portfolio formats :*
        - *Dashboards (examples iDashboards, San Jose State University)*
        - *Scorecards (NMU AQIP Benchmarks, CMU Key Performance Indicators)*
        - *Graphs*
    - *Portfolio organization - Function:*
        - *Strategic*
        - *Operational*
        - *Financial*
    - *Portfolio organization – Perspectives - Conceptual Framework*
        - *Stakeholders*
        - *Core Processes*
        - *Learning and Growth*
        - *Financial*
    - *Access*
        - *Log on*
        - *Alerts*
        - *My NMU*
- *Identify software tools to be used to support KMS– Complete by December 31, 2009*
  Completed as follows:
    - ***iDashboard software evaluation – January, 2010***
    - ***Corda CenterView software evaluation – January, 2010***
    - ***IBM Cognos Go Dashboard demonstration – February, 2010***
    - ***IBM Cognos Metrics Studio software demonstration – March, 2010***
    - ***Metrics Studio selected, March, 2010***
    - ***Metrics Studio Installation – end of April, 2010***
    - ***Metrics Studio training – June 9-11, 2010***
    - ***Metrics Studio consulting – June 14-18, 2010***

  Note: Metrics Studio was selected because it most closely met the software requirements which included the ability to interface with existing databases, ease of use, functionality and drill down capability.

- *Inventory existing performance information and how it is maintained : measures, reports, data bases - Complete by December 31, 2009*
  Completed - December, 2009
  - *Internal*
  - *External*
  - *Spreadsheet*
  - *Cognos - NMU*
- *Map measures to identify relationships and where they are to be included in portfolios – Complete by January 30, 2010.*
  First draft completed in January, 2010.
  Second draft completed in April, 2010.
  Ongoing as KPIs are changed and finalized.
- *Define process for monitoring, analyzing, and communicating performance. As part of this process describe when and how changes are made in strategy, operations, and resource management to bring into alignment with mission and vision. - Complete by February 15, 2010.*
  This will be completed once the final KPIs are decided upon.
- *Finalize KMS design and performance management process. - Complete by March 1, 2010.*
  KMS Version 1 to be completed by September, 2010
- *Develop and implement measures, portfolios, and website for KMS. – Complete by May 31, 2010.*
  KMS Version 1 to be completed by September, 2010