

7: Measuring Effectiveness

Process

7P1: Selecting, managing, and distributing data

MSTC determines what data and performance information to distribute based on Board and stakeholder expectations, as well as data related to outcomes for Strategic Directions and College Goals. Table 3P03a lists external stakeholders; internal stakeholders include the MSTC Board, Executive Committee, Management Team, instructors, support staff, and custodial staff.

Beginning in Fall 2006, the AEI AQIP Action Team developed and recommended the use of nine AEIs to Deans Council to measure academic program health. The AEI process was approved and implemented in FY2009. Deans, Associate Deans, and instructors share this performance information. Staff members with research responsibilities collate feedback on the

type of information collected and use the feedback to make improvements for subsequent reporting. Additional reports provided by outside groups are used to make decisions regarding academic programs (Table 7P01a). The Facilities Department uses internal and external data to make decisions to improve operations of MSTC's buildings and grounds. For example, data are provided to the Executive Committee, the MSTC District board and to the WTCS office regarding energy usage. As a result of this information, a decision was made effective summer 2009 to operate college buildings Monday through Thursday for June and July. At the conclusion, administration analyzed energy use and conducted a staff survey to evaluate the decision. As a result a decision was made to continue the four-day summer schedule for 2010.

HR implemented an online recruiting system. The system has been expanded to create applicant pools for adjunct instructors. In addition, HR implemented a behavioral interviewing process that provides position-specific data regarding applicants that are used to hire

Table 7P01a: Examples of Data Collected and Distributed

Provider	Report	Usage	Benchmark
WTCS	Quality Review Process (QRP) Report Card	Reviews and compares data on individual academic programs to make improvements	WTCS
WTCS	Client Reporting System	Federal reporting (AEFL, Perkins, AA/EEOC) State reporting (School-to-work, HS services, LFB, DOA, UW articulation, minority retention) WTCS reporting (Student counts/trends, cost allocation, equalization, interdistrict aids, graduate follow-up, program fee calcs, material fee calcs, state grant distribution, information requests)	WTCS Federal
WTCS	Graduate Follow-up Survey	Indicates graduate employment data 6 months after graduation	WTCS
WTCS	Cost Allocation	State aids, Cost per FTE analysis, Cost allocation summary, operational cost trends, Revenue source trends	WTCS
WTCS	Contract Reporting System	Contract services trends, Contract services revenues, Annual reporting	WTCS
WTCS	Employer Follow-up Survey	Indicates employer satisfaction with graduates	WTCS
National Center for Education Statistics	Integrated Postsecondary Education Data System	Allows MSTC to benchmark against other colleges across the United States	National
MSTC	Student Activities Survey	Determines student preference for use of student activity funds	Internal
MSTC	AEI	Academic effectiveness of programs at MSTC	Internal WILM
MSTC	Annual Energy Usage Report	Analyzes and benchmarks energy use to improve carbon footprint.	Internal

the best candidate for a position.

The Wellness Coordinator conducts surveys to determine ways to improve employee health and decrease health insurance costs. Information from MSTC's health insurance company is used to determine employee health trends. This information is used to shape wellness activities.

Student Affairs conducts quarterly meetings to disseminate information regarding enrollment, student surveys, changes related to services supporting student success, and other data used to make decisions on department activities. Feedback from students was used to discontinue intercollegiate athletics.

Budget managers have on-demand access to financial information to track performance against budget. The Vice President of Finance routinely updates an end-of-the-year forecast to determine MSTC's financial position. Budget managers receive monthly reports on spending; action can be taken to adjust the budget or reallocate expenditures. Table 8R01a documents data routinely used to monitor institutional performance.

7P2: Data to support planning

MSTC selects data based on specific goals and operational needs. The Executive Committee, Deans Council or department managers specify data needed to measure College Goals. Operational report needs originate in departments as a result of instructors or staff members making requests of their managers for operational data. Department managers work with staff to write the report request. For just-in-time data needs, a report writer develops a query of the MSTC PeopleSoft ERP. For permanent reports that measure the effectiveness of operations, a WILM Decision Support team member works with a department head to identify a method for report development. If a Cognos report is the best option, then a report request is filed with the WILM Report Request system. See Table 8R01a for information on management, distribution, and use of performance information.

7P3: Determining data needs

Departmental managers and staff members determine the data needs for their area. Operational data are typically driven by end users and business process needs. Federal or state (WTCS) data collections are key requirements. WTCS reporting requirements are defined in a consultative manner, incorporating appropriate departmental staff from each WTCS college.

The Information Technology Department managers determine network-based storage resources in consultation with their staff and end users. Network storage needs are discussed with the Information Technology Steering Committee to determine whether requests align with the specific operational goals. Incremental tape back-up occurs daily. Weekly system back-ups reside in safe deposit boxes off campus. WILM storage needs are determined in consultation with technical support staff for the various enterprise systems and the WILM Network Administrator.

MSTC bases access to specific data or systems on the requirements of an employee's position; Business Office staff also meet with users to determine report needs and formats. WILM develops profiles for all enterprise systems that allow College managers to assign system security. A department manager grants an employee access to the data systems and network and rescinds it when it is no longer required using a WILM request process. A WILM team member must approve the request and then forward it to the WILM Security team for activation. MSTC's Information Security policy defines this process.

The Student Records Office scans and makes student documents available via the secure ImageNow system. Student records maintained in a division are kept in locked storage.

7P4: Analyzing overall performance

Instructors, professional staff, Associate Deans, Deans, and the Executive Committee share information on organizational performance. MSTC's Strategic Directions and College Goals drive priorities for comparative information. Employees in each of these roles at MSTC play a part in the analysis of data and information, in the design of improvement plans, and in the review of plan outcomes. Data and information are available from various college, WILM, and WTCS sources. Table 8R01a provides information on standard reports, the audience, the frequency, and how the information from a report is used. Data reported are used to identify variances from organizational goals, triggering further investigation to improve overall performance.

7P5: Determining needs for comparative data

MSTC staff selects data that informs college decision-makers regarding the institution's effectiveness and efficiency; WTCS data collection requirements are

considered. MSTC uses WTCS system reports to benchmark college performance against the 15 other WTCS institutions. WTCS reports include:

- Client Reporting System
- Program Enrollment by Instructional Division
- Program Curriculum
- Graduate Follow-up Survey
- Staff Accounting
- Uniform Fund Financial Accounting System
- Apprenticeship Completers
- Course Approval
- Staff Certification
- High School Grads Enrolling Directly in WTCS
- Contract Reporting
- Employer Follow-up Survey
- Longitudinal Follow-up

The AEI dashboard addresses a need for internal and WILM benchmarking of MSTC academic programs on performance measures useful to program instructors and managers (response 7R3). The action project team recommended the measures on the dashboard after extensive conversations with instructors and staff. The action project team generated experimental data runs and reports, which instructional staff at MSTC reviewed for usefulness in measuring program performance. Deans approved the implementation of the AEI dashboard process.

MSTC participates in the QRP, which is a process for ongoing program improvement in the WTCS. QRP measures on the scorecard (see question 7R3) were defined in a series of state-wide meetings. MSTC is an active participant at the system level in this process. MSTC uses the QRP scorecard for program management decisions. In addition, MSTC, in collaboration with its WILM partners adopted local QRP scorecard measures that are used to benchmark program performance among the three colleges.

Executive Committee members use the IPEDS Executive Peer Tool to compare MSTC within a nationwide cohort. Users can define IPEDS report elements for institutional benchmarking performance.

MSTC deploys the Noel-Levitz Student Satisfaction Inventory (SSI) every two years to measure student satisfaction with college services. MSTC uses the SSI to benchmark its performance against other two-year colleges from across the nation and in Wisconsin. This process facilitates discussion regarding program and service improvements at MSTC.

Staff use of systematic measures such as the AEI dashboard or the QRP scorecard leads to more focused data analysis. The Cognos report generator is used to

create reports tailored to program-specific performance investigations. 7R3 includes a summary of data staff routinely collect and review.

7P6: Aligning data analysis to goals

Alignment of department and unit analysis with organizational goals occurs through MSTC's strategic planning model. Based on institutional and community needs, MSTC's Board develops the Strategic Directions. The Executive Committee develops the College Goals based on these Strategic Directions. (See responses 5P1 and 5P2 for MSTC's Mission, Vision, Core Values, and current Strategic Directions and College Goals). Using the College Goals, each Vice President structures measurable departmental goals, incorporating staff feedback.

Analysis is shared through a variety of ways. The Vice President of Academic Affairs meets biweekly with the Deans Council; Associate Deans meet with the Deans Council as needed. MSTC's academic units determine the type of data shared. An example of this process is the AEI dashboard (see the response to question 7R3). Department data are shared through the Deans Council meetings, and are discussed in more detail at Divisional meetings with the Associate Deans and instructors. To address continuous improvement in Academic Affairs and related services, MSTC devotes two Division Planning Days and two College Initiative Days each academic year to activities related to College Goals.

The Student Affairs department discusses performance data on student surveys, services that support students, enrollment, and other data trends at quarterly meetings. The Directors of Student Affairs and Enrollment Management meet routinely with staff members to review information and assess progress toward goals and to address ongoing student needs.

The Business Office distributes on-demand and monthly budget reports. Budget managers review these reports to manage their areas of responsibility. The Vice President of Finance reviews the financial reports and provides institutional forecasts. These reports are then discussed with appropriate budget managers for possible action. Monthly budget reports are also shared with the Board.

7P7: Ensuring accuracy, reliability, and security

MSTC ensures the timeliness, accuracy, reliability, and security of information systems and related

processes through a combination of physical and procedural security. All critical systems have established access security; information access is based on requirements for specific staff roles and responsibilities.

Data are stored locally and at the shared WILM data center. In both cases, the data centers are secured against physical and electronic intrusion.

Before deploying new reports or software, the data are vetted using a test database. Systems are tested for accuracy before being put into production.

MSTC ensures the integrity of data used to develop the various reports in Table 8R01a in a number of ways. There are multiple audits by internal and WTCS staff members; the WTCS system is highly integrated so discrepancies are readily identified and corrected. 7R3 includes results of MSTC data collection efforts.

MSTC ensures the timeliness of data in information systems through a combination of WTCS, local, state, and federal deadlines and processes. MSTC employees have standards for data entry and reporting, which means that PeopleSoft information is current; in combination with sophisticated and flexible tools like Cognos, MSTC is confident that data are current and accurate.

MSTC has clearly defined information technology processes and procedures for instructors, staff, and students. Policy compliance is monitored using a variety of software tools and physical devices.

Results

7R1: Measuring performance

8R01a is a table of performance measures and effectiveness that are used regularly at MSTC. With the exception of individual PeopleSoft reports and internal surveys (both of which individual users designed and implemented), each of the reports in this table were designed with input from end users relying on the information from the reports. The end users, who are in turn responsible for involving other stakeholders in the data design process, provided the report design teams with feedback on how the proposed measures would be used in comparing unit performance against unit and institutional goals. Groups such as the Deans Council or the Executive Committee use the measures reported in 8R01a to measure organizational and unit performance. These review procedures provide an opportunity for users to judge how well data reports reflect unit performance.

The Business Information Systems Manager performs internal data reviews to assess the efficacy of internal processes.

7R2: Evidence for meeting needs

Academic staff routinely evaluate feedback from program advisory committees, students, and instructors to search for improvement opportunities to better meet student and employer needs. In addition, evaluation of AEIs and QRP data are critical to program improvement. These reviews resulted in the addition of new programs and the discontinuance of low-enrollment programs; budget reallocations from discontinued programs provided some of the operational costs for new programs. Table 7R02a reflects the program changes during the past two years. These changes resulted in significant growth in student enrollments (over the last two fiscal years, FTEs increased by more than 25%) and helped MSTC General Fund revenues exceed fund expenses for each of the last three fiscal years. The five new Renewable Energy programs have been particularly strong performers; in the two years since the first of the programs were implemented FTEs have grown to more than 200, an increase of 300% over the first semester.

Evidence that MSTC's processes for measuring effectiveness are meeting needs is the low number of complaints and requests for additional information. As noted in 6I1, MSTC was able to reduce the number of reports during a recent upgrade, a clear sign that measurement processes are meeting user needs and constantly improving.

The response to question 7R3 includes an example of

Table 7R02a: Analysis-Driven Program Changes

Program	Action
Paper & Chemical Technology	Suspended 7/09
Chiropractic Technician	Discontinued 7/09
Energy Efficiency Technician	Added 6/09
Renewable Energy Specialist	Added 6/09
Quality Supervision	Discontinued 7/09
Renewable Electricity Technician	Added 6/08
Renewable Thermal Energy Technician	Added 6/08
Biorefinery Technology	Added 6/08
Judicial Reporting (shared program)	Added 6/08
Steamfitter Service	Added 6/08

the AEI dashboard that is prepared annually for each of MSTC's occupational programs. The response to question 7P5 includes information on the development of the AEI dashboard.

7R3: Comparative results

MSTC staff members review data on academic program performance and institutional performance. Tables 7R03a, 7R03b, 7R03c, and 7R03d provide examples of the data that are reviewed by Executive Committee, Deans Council, Associate Deans, and instructors. For example, Table 7R03a is WTCS data on the performance of the Accounting program at MSTC in FY2008. State scores benchmark a program against all similar programs in the WTCS. The target score is the average for the four top-performing programs in the state and the threshold score is the average score for the four lowest performing programs. The actual score is MSTC's outcome. College scores benchmark program performance against other programs at MSTC and against MSTC's WILM consortium partners.

Table 7R03b is MSTC's AEI dashboard for the Accounting Program for FY2009. Due to the system-wide data collection and editing processes required to report QRP data, system-wide data reports generally lag in-house data reporting. This dashboard provides quick reference to program performance trends on key measures of effectiveness. Each of MSTC's associate degree or diploma programs generates an AEI dashboard.

MSTC uses the SSI to compare institutional performance to that of peer colleges in the US and in Wisconsin. Based on SSI results, in general MSTC students are more satisfied than peers in Wisconsin and nationally. Institutional service improvement initiatives are derived in part from information from the SSI survey and from the focus groups that follow the survey process.

The WTCS provides an array of information on college performance. Table 7R03c is an excerpt from the FY2008 annual WTCS Cost Allocation Summary. This report provides information on enrollment and FTE production by demographic group, revenues by college academic unit, and expenses by college academic unit.

WILM uses Cognos reporting software to provide timely information to MSTC decision makers. The information in Table 7R03d is reviewed weekly. Note that this report enables MSTC staff to compare the institution's performance on these FTE measures against that of WILM partner colleges. In addition,

MSTC can compare year-to-date data with past years at the same point in time; this permits decision makers to make changes with confidence.

In conclusion, MSTC employs a variety of measures that enable College personnel to compare institutional performance to that of peer institutions within its data management consortium, across Wisconsin, across the US, and internally among its career programs. This information provides insight into MSTC performance, is useful in the identification of opportunities for improvement, and demonstrates systematic processes for data collection, analysis, and reporting.

Improvement

7I1: Recent improvements

The District Board recently implemented a budget modification process to improve fiscal responsibility. This process requires managers to monitor their budgets and to submit timely budget modifications. In addition the District Business Office simplified the process for requesting budget updates.

The new AEI dashboard is a valuable addition to the process for evaluating existing and emerging academic programs (response 7R3 covers AEIs in detail). This report is currently available in hard copy, and will be available soon as an online, interactive report. Deans and Associate Deans review AEIs annually. During this review, users provide feedback on AEI indicators.

As discussed in 9R2, MSTC routinely monitors student transfer into and out of the districts at the program level. When leaders noted that a large number of public safety students were leaving the district, MSTC used the information to expand and upgrade the Protective Services facilities. The new facilities, opened in Fall 2009, are state-of-the-art; MSTC will continue to monitor student migration to evaluate the effect of the new facilities.

The implementation of the Online Employee recruitment system in FY2009 increased MSTC's ability to collect and analyze data on applicants. The Wellness Coordinator implemented a new Health and Wellness promotion district wide by offering programs that promote exercise and well being.

Enrollment Management implemented indicators to measure the success of admissions, registration, and financial aid (Table 2R02k). Staff and managers in these areas were involved in the development of the Enrollment Management measures. The Director of Enrollment Management reviews and discusses these

Table 7R03a: Typical QRP Scorecard

Accounting Program				
Indicator Type Name	Indicator Code Name	Threshold	Target	Actual
WTCS Measures	C200 Course Completion	56.06	72.51	60.53
	C400 Special Populations Course Completion	47.57	72.27	53.00
	C600 Minority Course Completion	41.10	66.32	42.86
	F200 Second Year Retention	52.77	69.67	65.57
	F400 Third Year Retention	30.60	52.12	49.33
	F600 Third Year Graduation	10.36	34.98	29.33
	F800 Fifth Year Graduation	23.00	45.22	38.60
	I300 Job Placement – All Employment	78.47	98.58	93.75
	I600 Job Placement – Related Employment	45.42	78.68	68.75
MSTC Measures	M150 Retention	80.00	87.50	72.95
	N200 Program Enrollment	30.00	60.00	164.00
	S400 Graduate Satisfaction	2.99	3.55	3.35

Table 7R03b: Accounting Program AEI Results

MSTC Academic Effectiveness Measures: Accounting Program						
Indicator	Definition	FY05	FY06	FY07	FY08	FY09
Program FTE	Actual FTE generated by students enrolled in a specific program.	96.1	98.77	92.6	89.35	83.29
FT/PT Student Count	FT/PT students active in a program for a specific fiscal year.	81 FT 112 PT	74 FT 138 PT	76 FT 121 PT	62 FT 130 PT	82 FT 97 PT
QRP C200 Course Completion	Percentage of students in a program who completed at least 80% of the courses they took the previous year.	75%	67.50%	69.86%	60.53%	
QRP F200 2nd Year Retention Rate	Percentage of First Time Program Students who started 2 years ago and are still enrolled/graduated	69%	69.00%	56.00%	58.00%	
QRP I600 Job Placement in Related Employment	Percent of most recent graduates responding to the graduate follow up survey, in the labor market and reporting training related to employment.	76%	63.15%	58.82%	91.00%	
Average Cost per FTE	Average Cost per FTE for All MSTC Programs *FY07 Data not available	NA	\$5,450	NA	NA	
Direct Cost per FTE	Includes Direct costs; Average salary and benefits rather than actual; Gen Ed costs. Instructor overload not included. Credit classes only. *FY 07 Data not available	NA	\$4,380	NA	NA	NA
Total Graduates	Actual program graduates by FY	20	25	30	28	21
Tech Connect Total Postings by Program	Job postings included on the WTCS statewide Tech Connect system (includes in-district, out of district, out of state)	176 FT 50 PT	193 FT 77 PT	173 FT 73 PT	870 FT 523 PT	636 FT 269 PT

indicators with team members. Each semester, enrollment staff members also review global indicators such as application yield, matriculation yield rates, and online registration usage.

Each of these four improvements (budget management process, AEI, new HR services, and Enrollment Management measures) has had an institution-wide effect on performance. The District Board and management are kept current on MSTC's fiscal position, MSTC programs are now internally benchmarked on key performance measures, applicants are measured on standardized indicators, and changes in Enrollment Management business processes have contributed to increased student

satisfaction and enrollments.

712: Culture-driven process improvements

For a description of how MSTC's culture and infrastructure help drive planning and continuous improvement, see 912.

Table 7R03c: WTCS Cost Allocation Summary Excerpt, 2008 FTEs

Technical College	Collegiate Transfer	Associate Degree	Technical Diploma	Vocational Adult	Non-Post-secondary	Community Services	Total
Milwaukee Area	3,216.4	6,150.3	1,066.4	346.3	1,791.9	1.8	12,573.1
Madison Area	3,088.0	4,379.2	1,032.0	374.9	489.4	64.5	9,427.9
Northeast WI	-	4,747.3	817.7	379.3	552.5	7.6	6,504.4
Fox Valley	-	4,301.1	672.8	598.2	517.6	11.7	6,101.3
Gateway	-	3,477.2	400.9	147.8	807.3	-	4,833.3
Chippewa Valley	126.7	3,336.4	749.9	144.2	266.0	-	4,623.1
Waukesha County	-	2,819.2	610.3	265.4	373.7	45.4	4,113.9
Western	-	2,694.3	488.0	186.0	382.5	6.5	3,757.2
Moraine Park	-	2,086.1	634.1	129.8	244.0	0.1	3,094.1
Northcentral	-	1,904.1	324.0	172.0	550.9	-	2,951.0
WI Indianhead	-	1,800.1	656.4	309.1	151.0	4.3	2,920.9
Mid-State	-	1,570.4	291.3	83.5	148.3	2.8	2,096.3
Lakeshore	-	1,277.8	260.2	123.9	409.8	1.0	2,072.8
Blackhawk	-	1,308.9	292.9	99.0	202.9	1.0	1,904.7
Southwest WI	-	928.0	365.9	106.0	195.5	0.0	1,595.4
Nicolet Area	273.4	463.7	108.8	71.3	110.8	34.3	1,062.3
WTCS FTEs	6,704.5	43,244.2	8,771.4	3,536.6	7,194.1	180.9	69,631.7

Table 7R03d: Comparison of FTEs Across WILM Institutions

Year to Date FTE	MSTC				LTC				WITC			
	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010
AAS Degree	738	829	951	1,099	655	664	751	932	884	936	943	1,036
Tech Diploma	128	123	118	122	106	108	102	128	311	336	359	392
Voc Adult	24	26	21	24	45	47	44	49	100	100	95	110
Comm. Services	12	14	14	12	13	14	13	12	6	5	5	4
Basic Ed.	53	43	36	49	166	174	156	218	41	45	25	34
Total	955	1,035	1,141	1,360	985	1,007	1,067	1,340	1,343	1,422	1,430	1,578