

CATEGORY 7 MEASURING EFFECTIVENESS

Examines how your institution collects, analyzes, and uses information to manage itself and to drive performance improvement.

Introduction

The processes for Measuring Effectiveness reveal most processes are systematic and transitioning to aligned level of maturity.

The cultivation of faculty, staff, and administrative support for institutional effectiveness activities has become a priority for the college. Internally and externally, there is a growing expectation that the college must demonstrate and communicate to its many stakeholders how the institution is improving student learning and adding value to its students through support and administrative services. However, as BHC implements institutional effectiveness programs, the college confronts many technical and organizational challenges in the collection, formatting, dissemination, and reporting of information that documents student and institutional performance.

The processes for selecting managing and distributing performance information to support instructional, non-instructional, and planning improvement methods are well defined, deployed, and have experienced cycles of evaluation and improvement. (7P1, 7P2). The data request process is systematic and aligned with appropriate areas of the college (7P3). It will be undergoing its first cycle of evaluation and improvement in 2013. Recent improvements include the deploying a comprehensive student tracking and data warehouse management system. This AQIP Action Project will allow the college to make more timely decisions based upon information that is current and reliable.

The college dashboard and WEAVEonline assessment processes (7P4) enable the college to at an organizational level analyze data and information regarding overall performance. A recent review indicated the need to increase the frequencies of these reviews to ensure rapid responses to changing needs and priorities. Approaches to gain comparative data to assist in planning and improvement initiatives are integrated throughout the college. The availability of comparative data is included in the decision matrix to determine which data is selected and surveys are conducted (7P5). Improvements to the unit planning process with the implementation of WEAVEonline have improved BHC's ability to collect, store, manage, and align unit work process to the strategic plan objectives (5P6).

The processes in the ITS work processes are often reacting to problems. However, these processes are transitioning to systematic processes with the analysis of a recent technology audit and organizational infrastructure changes that took place in 2012 (7P7). The College acknowledges that it has not adequately addressed the institutional infrastructure needed by faculty and staff to address the challenges presented by an increasingly technological consumer oriented student body. For BHC to continue to survive in an increasingly competitive educational marketplace, it must redesign key systems that can deal with thousands of students but do so in a manner that meets their individual educational needs and expectations. BHC is implementing new information technologies (Data Warehouse, Early Alert, student tracking, and appointment scheduling software) that will allow the college to customize, streamline, and become far more effective and efficient in meeting student and stakeholder needs.

Processes (P)

7P1. The performance data selected, managed, and distributed to support the college's instructional and non-instructional programs and services is driven by the Strategic Plan, annual WEAVEonline goals and assessment plans, Program Review process and the ad-hoc requests for needed information.

Data is disseminated supporting instructional and non-instructional programs and services including registration activity, and enrollment forecasting. This data is segmented by campus, department, discipline, program, and course level. The Office of Planning and Institutional Effectiveness manages, analyzes, and distributes student data including registrations, enrollments, persistence, retention, completion, course sequence success, and other information to support academic decisions. Program Review Process is annually evaluated by Department Chairs and Deans. These reviews include data to assist faculty with program level assessment. Data includes elements such as program and course level enrollment and student demographics, course capacity, occupational outlook, course sequence data, student graduate follow-up data specific to the program, and financial unit cost data. Program Review data is disseminated to faculty through hyperlinks in the Program Review module of WEAVEonline.

To increase accessibility to data, PIE collaborated with the IT office and designed a web page to assist faculty and staff when making requests requiring services from Information Technology Services (ITS), PIE, or the Student Services department. The web form is available through the college portal, myBH, and the request is then routed to the appropriate individuals. The data and the means for delivering that data is done in various formats and is at the discretion of the requestor and the office fulfilling the request.

Program Learning Outcome Assessment Data

At the program level, the Office of Planning and Institutional Effectiveness meets with program faculty and deans to review data generated specifically for the program being reviewed to discuss its usability in informing the review process. These discussions lead to additional data requests or revision to current data sets.

Student Satisfaction Data

A representative sample of the data used to gauge students' satisfaction with instructional delivery and services includes data from the Noel Levitz SSI, SENSE, and the Graduate Follow-up Survey. See Category 3 for more information about these processes.

Enrollment Management Data

While the college has several extensive registrations, registration and enrollment reports to support enrollment management activities, the LEARN Strategic Plan calls for the development of an Enrollment Management Plan to use systematic approaches to analyzing the data and influencing the institutions recruitment and marketing efforts.

Finance Data

The Finance division receives ad-hoc requests for information related to student billing and payment information, vendor contract award results, and institutional revenue and expenditure amounts at various levels. These ad-hoc requests are often received from board of trustee members, administrators, budget managers, prospective suppliers, and community members through the Freedom of Information Act process administered by the Marketing and Public Relations department. In addition to these ad-hoc requests, the Finance information system provides users with on demand data utilized for decision-making and budget management purposes. The Finance division also provides budget managers with unit financial performance results annually as part of the BFO process. This information allows budget managers and administrators to review financial performance for the previous year as well as current year to date results and assists with developing budget requests for the upcoming fiscal year.

7P2. BHC selects data and performance information based on their identification as KPIs and core measures of the strategic plan achievement. BHC has implemented a Dashboard approach to tracking performance and linking performance to strategic goals and objectives. The BHC Dashboard includes a series of interconnected measurements aligning college-wide objectives and action plan metrics. The Dashboard is aligned to the five strategic plan LEARN priorities:

- Learner success
- Engaging learners and community
- Accountability
- Resource optimization
- Networking employees

The Dashboard, first implemented in 2007, was developed to better use data and information to make improvements and manage institutional effectiveness and was benchmarked against Northwest Missouri State University and St. Luke's Hospital. Improvements to the dashboard in 2010 included reducing the number of years displayed to five from seven and the alignment of college measures to national initiatives such as the Complete College America and Voluntary Framework of Accountability (VFA). A color coding system is in place to allow any member of the BHC community to easily identify and interpret the performance of any one indicator. Progress relative to the success of the LEARN strategic plan and action plans are measured against the established targets and appropriate benchmarks established for each KPI. Current cycle information is updated as it becomes available and immediate past performance going back four years is displayed for trend analysis.

The cultivation of faculty, staff, and administrative support for institutional effectiveness activities has become a major priority for the college. Internally and externally, there is a growing expectation that the college must demonstrate and communicate to its many stakeholders how the institution is improving student learning and adding value to its students. However, as BHC implements institutional effectiveness programs, the college identified and is consequently addressing many technical and organizational challenges in the collection, formatting, dissemination, and reporting of information documenting student and institutional performance. After reviewing the Lincoln / Illinois Performance Excellence (ILPEX) Feedback Report in 2009, the college identified the need to create a comprehensive student tracking and data management system that would allow it to make decisions based upon information that is current and reliable as one of the first AQIP Action Projects. The college is in its first six months of implementing a data warehouse solution that will allow the college to customize, streamline, and become far more effective and efficient in meeting faculty and staff needs for select data and information enabling them to meet students' and stakeholders' needs. The new data warehouse will be available for college users by early 2013.

To support departmental use of data in managing programs and services the college utilizes two approaches. First, the WEAVEonline unit planning process has each unit establish an annual assessment plan with goals and objectives that are aligned with one or more of the college's strategic goals, measures and performance targets. Second is the Budget for Outcomes process where the Finance department selects financial data (historical and current data) and disseminates that data to departments for analysis in developing a new budget request to support their unit plan.

7P3. To determine the needs of specific data collection, storage, and accessibility is determined by multiple methods including state and federal mandates and compliance requirements, the strategic planning process, internal program data requests, grant-reporting requirements, or new initiatives established as priorities by the President or Board of Trustees.

PIE, ITS, and the Student Elucian Database administrator collaborate on meeting the needs of departments and units regarding the collection, storage, and accessibility of certain data. An individual department or unit identifying basic data and information needs electronically completes a Service Request form, which is electronically forwarded to a member of all three collaborating units. The Elucian Database Administrator handles requests focused on current year student data, longitudinal data is handled by PIE, and ITS staff handles requests that will become regular reports.

Prioritization of data requests is handled at two levels. First, is the data required for meeting regulatory requirement of federal, state, and local governmental entities, and/or accreditation bodies? Staff working in the office of Planning and Institutional Effectiveness monitors this data. President’s Cabinet members and other units of the college may request data for particular accreditation or regulatory compliance as the need arises. The college submits regular state reports to the ICCB, Integrated Post-Secondary Education Data System (IPEDS) and the Illinois Board of Higher Education, the Higher Learning Commission and the U.S. Department of Education.

Second, if the request is an academic assessment and institutional effectiveness measure asked for by a specific unit and is clearly documented in WEAVEonline as aligned to the unit plan and the college strategic plan, the data is collected, stored, and analyzed for continuous improvement efforts. Program Review data is annually updated to the cohort of programs under review for easy and quick access to data regarding student enrollment, retention, completion, cost effectiveness measures and labor market information.

7P4. The Planning and Institutional Effectiveness staff analyzes data and information and publishes data on both a regular and ad-hoc basis. An example of a regular data sets shared with the college is the weekly registration reports issued during peak registration periods and after census day. These reports are disseminated via email to department chairs, deans, and President’s Cabinet. Additional analysis reports generating lists of courses with fewer than 10 students enrolled are shared with academic advisors.

Priorities for improvement are established in three ways. The BOT establishes priorities upon the conclusion of reviews and strategic planning retreats. President's Cabinet establishes priorities upon the review of the college’s performance relative to the Dashboard, Underrepresented Groups Report, and Program Reviews and other planning tools. Finally, through the unit planning WEAVEonline process, the work process units monitor and document performances relative to their unit plan objectives. At the conclusion of each state reporting process, PIE staff meets with the report stakeholders to review the findings, evaluate the process, and develop process improvements when necessary. PIE staff members participate on ad-hoc committees reviewing and preparing continuous improvement reports to the state, such as Program Review and the Under Representative Groups Report. In these reports, PIE assists members in “drilling down” into the data to support hypothesis and understand the content being evaluated.

Data and performance on strategic plan achievements are prepared and shared with the Board of Trustees, Presidents Cabinet, special project committees, faculty senates, Labor Management Council, and various instructional and non-instructional departments. Financial data is disseminated to department managers regarding financial performance as well as statistical information regarding enrollment, credit hours, and comparative data with other ICCB schools. Annual Audit processes also disseminated data to stakeholders, including the BOT, and provides institutional budget to actual variance information (CC5D)

7P5. The college actively seeks comparative data to assist in strategic planning and process improvement. When making decisions on key performance measures, surveys and studies the college

first asks: 1) is the data available internally, 2) does the data support the measure identified in the strategic planning and unit planning process 3) is there comparative data available and if not is there an opportunity to create a partnership to identify the comparative data. Comparative data from both internal and external to higher education are utilized to ensure performance is exceeding the college's targets. Several sources of comparative data are utilized. The ICCB serves as a central repository for data from the 48 Illinois community colleges. The IPEDS and nationally normed surveys also serve as sources of comparative data. The college participates in the NCCBP, a national community college project established to provide institutional performance indicators on several KPIs. The American Association of Community College's VFA is a comprehensive national accountability system created by and for community colleges to determine how well the college performs in serving a variety of students and purposes. The VFA measures student progress and outcomes, workforce, and economic and community development and has an approach for assessing student learning outcomes. The PACE survey was chosen partly due to its comparative data to other community colleges. In 2012, a call to ICCB produced the opportunity to get normed data nationally and establish an Illinois Consortium to share and compare results. Financial data is benchmarked against other ICCB institutions and peer group institutions and the Higher Learning Commission data is used with regard to financial ratios and performance annually.

BHC is actively involved in organizations that share their pursuit of continuous quality improvement. This includes CQIN, which is a membership-based organization, comprised primarily of two-year educational institutions throughout the United States and committed to quality improvement. Through involvement with CQIN, BHC has been exposed to several Baldrige award-winning organizations, outside of higher education, and has benchmarked against the relevant components of their processes. Each annual CQIN institute focuses on best practices for quality improvement and enables BHC to benchmark against those effective practices.

7P6. The college ensures that each department and work unit analysis of data aligns with the college's strategic plan by having departments and programs document their unit plans using the standardized process in WEAVEonline, a software application that addresses the need to develop and maintain continuous improvement processes for both the academic and administrative work units within the college. The WEAVEonline process enables work processes to address systematically improvements, document performance of its operations and aligns its experiences with college-wide institutional effectiveness measures (CC5D). WEAVEonline guides and provides for the alignment of unit plan objectives to be associated with the colleges strategic plan goals, accreditation, budgeting and institutional priorities.

The acronym "WEAVE" is used to make brief notation of the steps of the assessment cycle:

- W**rite expected student learning or program/department outcomes
- E**stablish criteria for success of the outcomes
- A**ssess performance of students or support unit
- V**iew assessment results for analysis
- E**ffect improvements where indicated

The Program Review process also helps align departmental programs with the strategy of the college. Program Review utilizes a standardized set of metrics for analysis in the review process. A recent improvement to the process included the documentation of these reviews in WEAVEonline and thereby integrating the Program Review process with the annual unit planning process. The Program Review process (previously conducted once every five years) now documents annually assessment plans that are associated with the college's strategic plan and culminates in a robust fifth year analysis.

7P7. The college ensures the timeliness, accuracy, reliability, and security of its information system(s) through the governance and management of the ITS work processes that oversees hardware, software, communication, and network systems.

The timeliness of BHC information systems is dependent on resource availability and scheduling priority. Systems are maintained for maximum availability by ITS technical staff. Hardware is refreshed periodically, as funding is made available. The goal is to refresh servers every five to seven years and personal/desktop systems on a four to five year cycle. Software is kept current following appropriate testing procedures following the release of a new version by the vendor. All BHC faculty and staff are given access to the information systems via the secure portal, myBH. Levels of access are granted through Elucian user accounts and role definitions. This single point of access provides most information including campus news/announcements, event information, academic information, student registration, financial aid, payments, and grades, financial and administrative information.

In addition, the learning management system, Canvas, provides access for online learning students and faculty to access class information, assignments, testing, and other academic information. Canvas is also used to supplement in-class delivery of information to students.

The accuracy of BHC information systems is dependent on staff preparedness and data validation processes. Training of employees begins during the hiring and orientation of new staff when they are trained in the management of data relevant to their positions. Staff effectiveness is continually improved through the analysis and correction of data management processes. Faculty and staff can request customized reports via an online data request system through myBH that initiates action from the ITS staff, student services coordinators, or PIE staff.

The reliability of BHC information systems is dependent on multiple factors utilizing best practices. ITS staff maintains the technology infrastructure to ensure operational capacity. As a part of the computing refresh, ITS requires that all computers have a minimum level of software in order to provide appropriate security and support. ITS provides a Help Desk for employees who need technology assistance with the computing systems. The Help Desk also supports BHC students using Canvas and myBH.

Testing of software using appropriate test environments takes place prior to software upgrades. Data is backed up daily, weekly, and monthly. Data integrity and audit processes are performed. ITS maintenance days are scheduled periodically throughout the year for administrative system updates and upgrades. The Elucian Support Team meets monthly to plan upgrades and testing to ensure software releases are reliable. Elucian software is maintained at the current major release or one release level back. BHC continually monitors the network and electronically notifies ITS staff of emergencies affecting technology systems.

BHC central computing systems, including all Production servers, networking, infrastructure, telecommunications systems, and firewalls are powered through an Uninterruptible Power Supply (UPS) and secluded in a secure data center environment. In addition, the primary data center and the telephone system at the Moline campus have a power generation backup.

Information systems are protected via passwords and monitoring software (e.g., antivirus, anti-malware) and intrusion detection systems. All incoming BHC email goes through a SPAM filter.

Files and documents stored on personal system hard drives are the responsibility of the user. Users are expected to back up files stored on the local computer themselves. All users are provided a home directory on the network to store data. These directories are then backed up daily and stored in an off-site location.

Results (R)

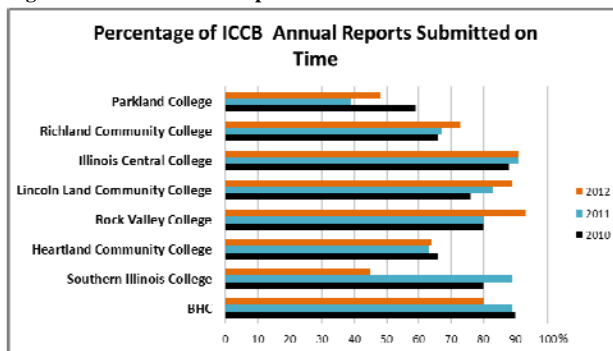
7R1. The current AQIP Action Project to develop and implement the data warehouse will strengthen the college’s capacity to collect, analyze and disseminate certain performance data in a systematic and consistent manner. BHC continues to use the following measures for ongoing assessment to determine the effectiveness of the current approaches.

- Meeting external reporting deadlines
- Meeting internal standards for report and budget deadlines
- WEAVEonline unit plan completed elements

7R2. The following indicators are evidence that the system for measuring effectiveness meets identified needs:

Reported in Figure 7R2-1, the college is meeting its external reporting deadlines. A desk review is completed annually to ensure that the college continues to meet its external reporting deadlines. In 2012,

Figure 7R2 – 1 Annual Report Submissions



the college submitted 80% of the required ICCB state reports on time down from nearly 90% the previous two years. Comparatively only one college has outperformed us in the three years reviewed.

The key performance measures for the downtime effectiveness of information technology systems have been discussed in 6R3. Additional metrics will be determined upon the review and analysis of the technology audit.

The measures of performance and effectiveness of the colleges key work systems and processes for information and knowledge management collected and analyzed regularly has improved since the implementation of the WEAVEonline system. To ensure assessment data is consistently documented, PIE monitors the number of units that complete the required documentation elements in WEAVEonline. Reported in Figure 7R2-2, the percentage of units completing required elements of WEAVEonline has improved. This improvement is a result of increased software

Figure 7R2 – 2 WEAVEonline Status

| WEAVEonline Status Overview for All Entities Completed | | |
|---|---------|--------|
| | FY 2011 | FY2012 |
| Mission/Purpose | 24% | 41% |
| Goal | 27% | 47% |
| Outcome/Objective | 24% | 36% |
| Measures | 23% | 37% |
| Targets | 15% | 21% |
| Findings | 5% | 5% |

training and technical navigational assistance. WEAVEonline is the tool used by both academic and administrative units of the college.

Figure 7R2 – 3 Types of Assessment Measurement

| Academic Direct Measures | Academic Indirect Measures | Administrative Measures |
|--------------------------|----------------------------|-------------------------|
| • Other Acad Dir. | • Other Acad Ind. | • ☐Other Admin. |
| • Internship Eval | • Advisory Board | • ☐Activity Volume |
| • Licensure Exam | • Alumni Survey | • ☐Benchmarking |
| • Performance | • Benchmarking | • ☐Climate/Environ |
| • Portfolio | • Curriculum | • ☐Discussions |
| • Pre/Post Test | • Employer Survey | • ☐Doc. Analysis |
| • Presentation | • ☐Exit Interviews | • ☐Efficiency |
| • Project | • ☐Focus Groups | • ☐Evaluations |
| • Standard Test | • ☐Honors/Awards | • ☐Existing Data |
| • Written Assign. | • ☐Placement Data | • ☐External Report |
| • Writing Exam | • ☐Satisfaction | • ☐Focus Groups |

Finally, Figure 7R2-3 details the types of academic, indirect, and administrative measures documented in WEAVEonline and used to assess effectiveness of programs and services.

7R3. While Black Hawk College utilizes a number of sources by which to compare performance against other higher education institutions relative to student and stakeholder satisfaction, organizational climate and student outcomes, the college has not developed many similar strategies for the comparison of performance results for measuring effectiveness. One exception is the number of reports submitted on time to the ICCB in comparison the ICCB Peer Group.

Improvements (I)

7I1. The methods for storing, reporting, and providing access to information have been the focus of an AQIP project. For the past six months, the college has a team working on improving the structure and design of a data warehouse. The college began this journey by training staff on the concepts of business intelligence and data warehouse. Through those trainings it was determined the college would pursue purchasing a data warehouse product versus building the data warehouse from scratch. After a robust review and evaluation of several data warehouse products, the team recommended and enlisted the services of an outside vender. As of the writing of this Systems Portfolio, the project has successfully completed the installation and functions for extracting, loading, and transforming data pulled from the Elucian system and is currently engaging staff in the data verification process. The operational target date for the data warehouse is in early 2013.

BHC has made several other improvements in its processes for measuring effectiveness. These include:

- adoption of software programs that make data more readily accessible, including WEAVEonline and ZogoTech Data Warehouse
 - adoption of software that makes electronic workflows timelier
 - recipient of Title III grant funding to assist the college in using technology to build an infrastructure responsive to student technological requirements
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7I2. The culture and infrastructure that has assisted in the selection of specific process to improve and to target improved performance results in measuring effectiveness is one of data driven decision-making and a strong focus on student success. Although the college has undergone several leadership changes over the past five years, it has retained the course of using data to inform decision-making and to embrace continuous quality improvement. The shift to a data-informed culture has led to the decision to pursue a data warehouse environment that would make data and information more readily available to faculty, staff, and administrators. The approach to providing faculty, staff and administrators self-service tools to access budget information, student success data, and employee information is a growing expectation of BHC's workforce. This expectation forms the basis for the expansion of the BHC's analytic reporting capabilities and the further development and refinement of the college's institutional effectiveness measures.