



EDUCATIONAL OUTCOME ASSESSMENT, 2004

A REPORT ON EDUCATIONAL OUTCOME ASSESSMENT ACTIVITIES AT CASE

PRESENTED TO THE FACULTY SENATE

BY

THE OUTCOME ASSESSMENT EXECUTIVE COMMITTEE:

RICHARD BOYATZIS (WEATHERHEAD SCHOOL OF MANAGEMENT)
HIRAM CHODOSH (SCHOOL OF LAW)
ELIZABETH DAMATO (FRANCES PAYNE BOLTON SCHOOL OF NURSING)
DONALD FEKE (PROVOST'S OFFICE, CHAIR OF THE COMMITTEE)
DAVID HUTTER (PHYSICAL EDUCATION AND ATHLETICS)
WALLACE GINGERICH (MANDEL SCHOOL OF APPLIED SOCIAL SCIENCE)
JAMES HENSON (CENTER FOR INSTITUTIONAL RESEARCH)
JILL KORBIN (COLLEGE OF ARTS & SCIENCES)
JAMES MCGUFFIN-CAWLEY (CASE SCHOOL OF ENGINEERING)
DANIEL ORNT (SCHOOL OF MEDICINE)
MARSHA PYLE (SCHOOL OF DENTAL MEDICINE)

MARCH 23, 2004

This report summarizes the educational outcome assessment activities undertaken in support of the educational mission of Case Western Reserve University. Highlights of activities are described in the executive summary with full reports by unit, school or department attached.

Contents

Executive Summary.....	3-9
Overall Campus Assessment Activities.....	10-26
Center for Institutional Research.....	10-20
School of Graduate Studies	21-23
Reaccreditation Activities	24-26
Individual Unit Reports	27-162
College of Arts & Sciences	27-33
Mandel School of Applied Social Sciences.....	34-36
Physical Education and Athletics	37-52
School of Dental Medicine.....	53-83
Case School of Engineering	84-92
School of Law.....	93-100
School of Medicine.....	101-108
Frances P. Bolton School of Nursing	109-124
Weatherhead School of Management.....	125-162

EXECUTIVE SUMMARY

Overview

Case Western Reserve University strives to be the most powerful learning environment in the world. Because Case seeks to have transformational impact on all students, we commit to a comprehensive educational outcome assessment program, wherein we measure how our students have changed, what knowledge has been learned, and what competencies have been developed. Our educational outcome assessment programs will not only provide information on how well we are achieving our objectives, but will also identify what types of programs and experiences have the most powerful impacts. Continuous evaluation leads to improvements of programs and the enhancement of the distinctiveness of our University. Educational outcome assessments are based on the core vision and mission of each school and the University as a whole. This report summarizes the extensive and comprehensive assessment activities currently underway at Case.

Overall Campus Outcomes Assessment Activities

- **Center for Institutional Research (CIR)**
 - The Center for Institutional Research at Case, created in March 2003, provides information and research about the University's students, faculty, staff, programs, and environment to support decision-making, policy analysis, institutional assessment, and strategic planning. Based in the Office of the President and the Provost but drawing on the expertise of staff in a number of units, the center's resources are available to school-based faculty and staff as well as to central administration and campus committees. The Office of the President and the Provost establishes policy and priorities for the Center, though a significant component of its research activity includes coordination and support for academic outcomes assessment, particularly for the activities of the Outcomes Assessment Executive Committee. Other outcomes assessment activities include the conduct and/or analysis of national outcomes survey assessments: The Cooperative Institutional Research Programs (CIRP) longitudinal student survey project, the National Survey of Student Engagement (NSSE) longitudinal survey project, the Case/Higher Educational Data Sharing Consortiums senior survey (HEDS) and other alumni, graduate student and faculty surveys.
- **Reaccreditation Efforts**
 - Case is currently preparing for its application for continuing accreditation from the Higher Learning Commission (HLC) of the North Central Association (NCA) of Colleges and Schools. A team from the HLC/NCA is expected to conduct a site visit at Case in April 2005. Prior to this site visit, Case will submit a formal self-study document, describing the University, progress towards reaching our vision, and assessing strengths and weaknesses with respect to the accreditation criteria specified by the NCA. Included within these criteria are requirements for extensive and meaningful educational outcomes assessment activities to be practiced.

- Case has chosen to pursue an accreditation plan that will allow us to highlight the distinctive strengths of our University. Case's self-study will be themed around the concept of the "transformation" experienced by students, faculty and staff. Targeted self-study activities are currently underway in four areas, two of which (Graduate and Professional Student Development; Faculty Motivation, Commitment and Engagement) have direct relationship with educational outcomes assessment. Survey data and other information gathered from these focused self-studies will complement the outcome assessment activities reported here.
- **School of Graduate Studies**
 - The School of Graduate Studies conducts an exit survey for all masters and doctoral degree recipients. The instrument provides information on the effectiveness of Case graduate training, professional development and the quality of faculty mentoring. Results are being made machine-readable with a report planned during the 2004-2005 academic year.

Individual School and Department Outcomes Assessment Activities

Capsule summaries of the educational outcome assessment activities practiced within each school are presented in this section. Full details are available in the appended reports.

- **College of Arts & Sciences**
 - The primary outcome assessment activity of the College of Arts and Sciences is the ongoing assessment of the SAGES program. Currently in its pilot phase, SAGES is the subject of a comprehensive, rigorous, and continuous assessment program. The assessment involves a range of methods, including standardized course evaluations, SAGES-developed course evaluations, direct observations of the learning environment, interviews with faculty and students, and use of National Survey of Student Engagement (NSSE) data. In addition to the overall assessment activity represented by SAGES the Executive Committee of the College of Arts and Sciences, in consultation with then Dean John Bassett, determined that outcome assessment in the College required accommodation of the variability among its twenty-one departments. As would be expected, outcome assessment plans differ from department to department. All departments submitted a plan for outcome assessment that was reviewed and approved by the Executive Committee and the Dean. Outcome assessment methods across the departments include the following mechanisms:
 - course evaluations
 - exit interviews with graduating seniors
 - essays by graduating seniors evaluating their experiences
 - admission to top graduate and professional schools
 - admission to special summer programs abroad
 - discipline-specific written questionnaires
 - e-mail or phone interviews
 - portfolios of writing projects
 - evaluations of capstone experiences
 - ongoing evaluations of student progress
 - alumni interviews

- **Mandel School of Applied Social Sciences**

- The Mandel School of Applied Social Sciences employs an evaluative strategy that informs faculty on issues of curriculum content, curriculum outcomes and student and alumni opinions. The evaluative strategy includes both quantitative and qualitative information gathered through a variety of tools and techniques, including field learning evaluations, grades, portfolios, licensing examination, course evaluations, alumni survey, social work self-efficacy, and exit focus groups. The evaluative strategy is one that depends on measures the School has used routinely over a number of years as well as measures that are in the process of development and refinement. Information from the evaluative strategy is fed back to the faculty through committee structures; the curriculum groups, e.g., concentration meetings; individual communication between the associate dean and the faculty member; and periodic reports and memos. Outcome assessment at the Mandel School occurs in the context of our Ability-Based Learning Environment (ABLE). Faculty of the Mandel School identified eight abilities they wanted students to develop by the time they graduate from the program. The abilities were based in part on input received from fourteen stakeholder groups. They serve as the learning objectives for each student, and are the standard against which learning outcomes are assessed. These eight areas are: Applying Social Work Methods; Integrating Social Work Values and Ethics; Valuing a Diverse World; Thinking Critically; Communicating Effectively; Advocating for Social Justice; Succeeding in the World of Work; and Artfully Using the Self.

- **Physical Education and Athletics**

- Physical Education faculty members are encouraged to use course and instructor evaluation forms to improve teaching style, methods, and curricular content to enhance achievement of learning outcomes. The intercollegiate athletic program is assessed every year as required by the Education Amendment Act of 1972. The EADA report documents institutional compliance concerning gender equity principles in intercollegiate athletics with budgetary and human resource allocation. The intercollegiate athletic program also is required to complete an NCAA self-study every five years. The physical education department also assesses the intercollegiate athletic program via student opinion from a senior survey electronically administered to students completing their final season of athletic eligibility, random selected students presently members from each team each season, and students on the eligibility roster the previous season but not during the present season.

- **School of Dental Medicine**

- The School of Dental Medicine has approached outcomes assessment from a systematic and comprehensive perspective. Organizationally, the process is embedded into the fabric of the vision and mission statements, strategic planning outcomes, goal and objectives definition and finally, the articulation of the outcomes expected. The process is driven by what the faculty has defined as the School's mission through the strategic planning process. The result, strategic directions, defines the specific objectives that the faculty has determined to be important for the success of the School and the academic program. Outcome Assessment is defined around the primary mission statements regarding the Educational Program, Scholarship and Research, Service and Patient Care. The program objectives are outlined for each of the mission categories. The Committee on Outcome Assessment tracks results quarterly using a template of program objectives and expected outcomes for each of the mission categories. The results of the outcome evaluation are shared with the Dean and then the faculty to monitor program progress. Adjustments to the outcome assessment plan are made to both program objectives and to level of expected outcome on a regular basis. Specific outcomes may be tracked for several years, and then when expected outcomes have been consistently achieved new objectives and

outcomes may be monitored to evaluate program development and new outcomes. Specific objectives related to the Pre-doctoral educational program are defined in the Competencies for Graduates Document. This document defines fifteen domains for content deemed necessary for the student to have mastered by graduation and the educational objectives that define each domain. The document represents the knowledge, skills, and values a graduate is expected to have acquired by graduation. Correlating documents tie our curriculum content areas (courses) to the specific competency statements. An Educational Outcome Plan document lists the ways in which each competency statement is assessed (and by what methods) throughout the curriculum, across the four years. The post-doctoral educational programs at the School of Dental Medicine have the same level of educational competency expectations and outcomes documentation. These are professional requirements for accreditation in both the pre-doctoral and post-doctoral programs.

- **Case School of Engineering**

- **School-wide assessment:** The primary method for assessing academic outcomes for the entire school of engineering is provided by a survey of alumni and employers of alumni. Tabulated data are sent to chairs and presented in a school-wide faculty meeting. **Departmental assessment:** All individual departments conduct their own assessment activities ranging from exit surveys, “town-hall meetings” and senior surveys. As would be expected results are also processed differently, ranging from presentations to faculty and students and tabulated results distributed to Chairs and students. Following dissemination of results actions are taken to address problems and formulate new educational policy. These processes are annual and inform educational policy throughout the academic year.

- **School of Law**

- **School Level Assessment:** Every seven years, as part of the law school accreditation process, the School of Law conducts a comprehensive self-study. Under the leadership of the Dean, the School of Law formalizes its strategic plan for the future. Beginning in the summer of 2003, the School of Law undertook a formal study of its place in the US News Rankings, generated a report that assessed the school’s position, and made numerous recommendations to the faculty, most of which were approved and are in the process of being implemented. **Programmatic Assessment:** The School of Law recently implemented a new, three-year, integrated skills training program, *CaseArc*, and because of the experimental nature of the program, its collaborative teaching model, and the expansion of skill sets deemed critical to the contemporary professional (from writing to oral processes, from litigation to transactional skills, business planning, and focused problem solving), we have implemented several new assessment tools, including periodic surveys of students and informal, small group meetings with the Associate Dean. Each year, the directors of our Centers of Excellence (Law-Medicine; International; Law, Technology and the Arts; Business Regulation; and the Clinic) submit reports to the Dean, assessing both accomplishments and issues to be addressed. Some, but not all, of the Centers also utilize their advisory boards for providing assessment and input. For example, the Clinic’s advisory board meetings led directly to the formation of a skills task force that designed the *CaseArc* program. **Students:** Traditionally, legal education utilizes summative assessments of students that focus on a final examination. The School of Law still relies heavily on these quantitative, comparative assessments, based on a mandatory grade curve that applies to classes larger than fifteen students. The School of Law, however, has started to depart from that model in several key respects. First, through the *CaseArc* program and our advanced writing seminars, the faculty provides more formative and qualitative feedback. Second, a few large classes are moving to smaller graded assignments during the semester. Third, the emphasis on oral, social processes requires new assessment tools for the skills curriculum.

- **Weatherhead School of Management**

- **MBA Studies Completed and On-Going:** The school completed an up-dated outcome assessment of the MBA program in 2002. It included the baseline data from 1987 through 1989 (for comparison groups), the full-time graduating cadres of 1992, 1993, 1994, 1995, 2000, and 2001 and part-time graduating cadres of 1994, 1995, and 1996. Entering data on all in-coming MBAs continues to be collected each year, but only collect graduating data on full-time graduates. That data is analyzed about every two years. The main assessment method used for these comparisons (and the entry course) is the ECI-U WSOM Version. It assesses emotional and cognitive intelligence competencies that have been shown in hundreds of studies to predict effectiveness of managers, executives, and leaders in most countries of the world. It is on-line for our registered students. In addition to these studies, there have been a number of doctoral dissertations conducted on this data, as well as follow-ups of graduates. This work has been cited by other authors in the field as exemplary of outcome assessment and maintaining an intellectual integrity to our work with students. Parallel studies began last year at ESADE (a major management school in Barcelona to study the impact of their program.) and will start next year at ALBA (the major private management school in Athens). **EMBA Outcome Studies:** Two doctoral dissertations were completed on follow-up studies of the EMBA. One followed the graduating class of 1997 four years later. Another followed classes of 1999, 2000, and 2001 in 2002. **Professional Fellows Outcome Studies:** Four cadres of the Professional Fellows Program were followed and studied. They were two classes one year after graduation, one cadre two years later, and one cadre three years later.

- **School of Medicine**

- The School of Medicine has a broad and extensive program for outcomes assessment. The multiple opportunities for dialogue among students, faculty and leadership provide substantial qualitative feedback during the four years in school. Quantitative data for both students' acquired knowledge base and impact on career selection and success is provided through the standardized assessments at a national level where pertinent benchmark data also results. Assessments in which both national organizations and the SOM engage post graduation provide both qualitative and quantitative outcome measures but the response rates due to the voluntary nature of the solicitation are often low. The advent of the United States Medical Licensing Examination (USMLE) Step 2 Clinical Skills (CS) has provided the impetus for the School to develop better internal measures of clinical skills assessment. Over the next several years this method of outcome measurement will be incorporated into a variety of experiences for the School as a whole and for individual clinical departments. The SOM Performance as PGY-1 study was a measure of our graduates' ability to function as trainees and provided valuable feedback to education leadership. The goal will be to analyze the questionnaire tool and potentially repeat the assessment for the class of 2004. The SOM is developing a new track within the School called the Cleveland Clinic Lerner College of Medicine that is creating a unique five-year curriculum. The first class will enter in July of 2004 and many new assessment tools are still in the formative stage for this program. **School wide activities: During Program:** Year 1 Comprehensive Examination: This examination assesses the Core Academic Programs that form the curriculum of the first year and a passing score is one of the requirements necessary to advance to year 2. Performance on this comprehensive examination is then compared to the USMLE Step 1 (below) where this comparison provides a useful assessment of the core programs within the first year as well as it has been shown to predict success on the USMLE Step 1. USMLE Step 1: Students take this national examination at the end of year 2. Score for the school's students (with consent) are compiled by National Board of Medical Examiners (NBME) and reported to Case allowing comparison to previous years' performance and the national group of examinees. Other assessment activities include: USMLE

Step 2 Clinical Knowledge (CK), SMLE Step 2 Clinical Skills (CS), Objective Structured Clinical Examination (OSCE), SOM student feed-back efforts (routine meetings with the Dean, students a representation on various curricular and medical education committees, weekly meetings with students and faculty to specifically critique curriculum). American Association of Medical Colleges (AAMC) Medical School Graduation Questionnaire. Post Graduation: The specific specialty and center for each of our graduates is reported. The *match program* provides feedback to the school to determine overall success on the initial match process. Students rank their choices as part of the program and the school receives data on the percentage of our students that match to their highest ranked program. The quality of the programs, as measured by various reports is reviewed for the schools graduates as well. Other post-graduation assessment activities include: USMLE Step 3, School of Medicine Performance as PGY-1s: (In 2001 a questionnaire was developed and sent to all graduates of the class of 2000.)

Department/programmatic level: during program: Individual departments including Internal Medicine and Family Medicine have for many years used the OSCE format for learning and assessment activities. Other activities include extensive Curriculum Evaluation efforts and NBME Subject Examinations. Post Graduation: USMLE Step 3: NBME reports overall scores to Case with comparison scores at a national level. Individual clinical departments have access to the National Match results for the School's students choosing to pursue careers in the respective specialty.

- **Frances P. Bolton School of Nursing**

- **Assessment activities conducted at the school level:** The FPB Systematic Evaluation Plan is a document that summarizes and directs the various evaluation activities of the entire school. This document outlines the schedule of evaluation (typically 1-5 year cycles) of the school's components, which include mission and governance, faculty, students, curriculum, resources, and integrity. This document was revised in 2003 based on recommendations from the Ohio Board of Nursing. The FPB Systematic Evaluation Plan (see attached) is a document that summarizes and directs the various evaluation activities of the entire school. This document outlines the schedule of evaluation (typically 1-5 year cycles) of the school's components, which include mission and governance, faculty, students, curriculum, resources, and integrity. This document was revised in 2003 based on recommendations from the Ohio Board of Nursing. Alumni Surveys are sent to alumni of each program on the one and three year anniversary of their graduation. The data have been entered into an SPSS data file for the purposes of conducting descriptive statistics and analysis of trends. Annually, each faculty member (tenured & non-tenured) completes a self-assessment of their work-related activities during the academic year. This includes an accounting of courses taught, student thesis/dissertation committee involvement, and school and university committee participation, as well as activities related to publication and grant writing. Future goals are set for each faculty member and reviewed by the FPB, appointment/Reappointment/ Promotion/ Tenure Committee Results of third party rankings (Total Federal-Funding Dollar Amounts for Research & Training, US News & World Report Graduate School Rankings) are followed and regularly discussed by the convened faculty as a whole. Proposed interventions to improve FPB's ranking are considered. **Assessment activities being performed at the programmatic level:** Student evaluations are conducted at the conclusion of each course. The results are compiled by support staff, reviewed by the appropriate program director, and then sent to the faculty of record for the course. These documents are stored as electronic files in the offices of the Program Directors. Exit interviews are conducted at the time of graduation for those students who are graduated in May or within one year of graduation those students who are graduates after the summer and fall semesters. The exit interviews for the BSN and ND II students are conducted using a standardized commercially available tool for exit interviews (the EBI—Educational Benchmarking Institute). As of 2003, 94 schools of nursing nationally used this standardized tool to evaluate their educational program. Results compare FPB to 5 other peer institutions that we select (selection is limited to participating schools), to other similar Carnegie level institutions (31 similar institutions in 2003 that used EBI), and to all 94 participating schools of nursing. MSN graduates use an FPB-developed exit

interview tool to evaluate satisfaction with the masters program. PhD exit interviews are conducted by the program director. The program directors, the Associate Dean for Academic Programs, and the Evaluation Committee review the results of the exit surveys. Results are summarized and presented to the general faculty in terms of areas in which educational goals are met to a satisfactory degree and opportunities for improvement. Each academic program faculty group meets separately to develop and implement strategies to address survey areas that indicate an opportunity for improvement. Faculty members complete a course evaluation for each course they have taught during the academic year. These evaluations are reviewed by the appropriate program director for any necessary actions to be undertaken by the FPB Curriculum Committee or the faculty as a whole. Prelicensure students (BSN & ND II) take the commercially available Mosby Assess test near the end of their program, which evaluates their readiness to take their RN-licensing examination. The performance of our students is compared to national norms. FPB also trends the first time pass rate for the RN-licensing examination (NCLEX) for our prelicensure students, as does the Ohio Board of Nursing. The first time pass rate is compared to schools of nursing in the state and nationally. Provost

Conclusions

Meaningful educational outcome assessment activities are currently being practiced within each educational unit of Case Western Reserve University. The results of these assessment efforts are being used both to affirm that the various educational programs are meeting their objectives and to point the way toward improving the effectiveness and quality of our programs. However, there still remain significant challenges (i.e., confusion about the need for assessment and appropriate methods, lack of financial and human resources dedicated to assessment, disinterest of faculty) to be overcome in order to fully realize the benefits of educational outcome assessment. Continued promotion of assessment and its incorporation as an organic component of the educational process should continue to occur at both the University and school levels.