
Research Highlights

Cost Effectiveness of Online Education

By Tana Bishop
University of Maryland
University College



Cost Effectiveness — Tana Bishop
University of Maryland University College

RESEARCH HIGHLIGHTS
COST-EFFECTIVENESS OF ONLINE EDUCATION

Area of Focus	Indicator(s)	Measure(s) of Effectiveness	Progress Indices	Institution and Research Sites
Institutional Commitment	Cost reduction	Lower instructional expenses while holding student enrollments steady.	Cost savings per student ranged from \$31 (University of Central Florida) to \$105 (University at Buffalo) while enrollments remained constant or increased slightly.	Penn State U at Buffalo U of Central Florida U of Colorado-Boulder U of Illinois-Urbana UW-Madison VA Tech For individual school results, see http://www.center.rpi.edu/PewGrant/rd1award.html See Pew Grant Round I Actual Savings Summary at http://www.center.rpi.edu/PewGrant/Rd1saving.html
		Reduce rented space needs by utilizing classroom space more efficiently.	U of Central Florida specifically addressed this need by implementing a mixed delivery model that combined f2f and online class sessions.	See UCF results at http://www.center.rpi.edu/PewGrant/rd1award/ucf.html
	Cost containment	Increase student enrollments without additional expense.	Increased section sizes at IUPUI and University of Southern Maine resulted in goal achievement. Rio Salado met its objective by reallocating a faculty member's time across course sections and adding a course assistant.	IUPUI Rio Salado U. Southern Maine See Pew Grant Round I Actual Savings Summary at http://www.center.rpi.edu/PewGrant/Rd1saving.html
Area of Focus	Indicator(s)	Measure(s) of Effectiveness	Progress Indices	Institution and Research Sites
Institutional Commitment	Maximize available resources	Form partnerships and consortia to leverage costs and benefits to the institution.	Through the development of a college/university consortium, the Virtual Library of Virginia (VIVA) has been able to achieve cost savings, improve library services, and expand the holdings of the individual institutions.	See VIVA homepage at http://www.viva.lib.va.us/ For financial report, see http://www.gmu.edu/library/fen/viva/about.html#BUDGET
Faculty Support	Reduce the amount of faculty time spent on administrative tasks	Implement efficient course management system that allows faculty to record and calculate grades, post changes in syllabi, etc.	Faculty used various CMS products (commercial and proprietary) to handle administrative functions more efficiently. According to the research, CMS contributed extensively to redesign efforts and effective time management.	For individual school results, see http://www.center.rpi.edu/PewGrant/rd1award.html For summary results, see http://www.center.rpi.edu/PewGrant/Rd1saving.html
	Automate various assessments to reduce faculty labor	Implement efficient online assessment process for exercises, quizzes, and tests to reduce faculty labor in preparing, grading, recording assessments and posting results.	Automated process greatly reduced faculty time on these processes and generated tests more quickly.	For individual school results, see http://www.center.rpi.edu/PewGrant/rd1award.html For summary results, see http://www.center.rpi.edu/PewGrant/Rd1saving.html

Area of Focus	Indicator(s)	Measure(s) of Effectiveness	Progress Indices	Institution and Research Sites
Faculty Support	Increase faculty productivity	Provide mechanisms for faculty to share resources, such as revised curricula and course materials.	Substantial amounts of faculty time have been reduced in course redesign efforts by eliminating duplicative efforts and streamlining process.	See Penn State results at http://www.center.rpi.edu/PewGrant/rd1award/PSU.html For summary results, see http://www.center.rpi.edu/PewGrant/Rd1saving.html
Student Support	Help students be better prepared for class discussions	Develop and implement online tutorials with key concepts and discussion points to increase student participation.	Tutorials provided consistency in the presentation of key concepts and provided opportunity for more efficient usage of both student and faculty time.	See U Wisconsin-Madison results at http://www.center.rpi.edu/PewGrant/rd1award/UWM.html See VA Tech results at http://www.center.rpi.edu/PewGrant/RD1award/VA.html For summary results, see http://www.center.rpi.edu/PewGrant/Rd1saving.html
	Increase student retention	Improve drop-failure-withdrawal (DFW) rates.	Redesigned courses at two institutions resulted in decreases in DFW rates ranged between 2–14%. Another school reported a 9% decrease in failure rate. Yet another found a 7% increase in students completing redesigned course in comparison to traditional offering.	Penn State (Elementary Statistics) IUPUI (Sociology) Rio Salado (Mathematics) VA Tech (Linear Algebra) For individual school results, see http://www.center.rpi.edu/PewGrant/rd1award.html

RESOURCES RELATED TO COST-EFFECTIVENESS

Operational Definitions

Cost-Effectiveness

Levin, H. M., & P. J. McEwan. *Cost-Effectiveness Analysis: Methods and Applications*, 2nd edition. Thousand Oaks, CA: Sage, 2001.

Ng, K. Costs and effectiveness of online courses in distance education. *Open Learning* 15(3): 2000.

ROI (Return on Investment)

Ferreri, J. ROI for dummies. *Distance Education Report* 6(19): 2002.

Ruyle, K. The “three Rs” of ROI. *Technical Training*: May/June 1998.

Metrics for Research and Evaluation

Massy, W. *Honoring the Trust: Quality and Cost Containment in Higher Education* (see chapter on “Balancing Cost and Quality”). Bolton, MA: Anker Publishing. 2003.

The National Association of College and University Business Officers provides a template for reporting cost of instruction that is useful for internal benchmarking. Searching NACUBO for “Cost of College Project” will produce the downloadable template: <http://www.nacubo.org>.

Pew costing method, [Pew Course Redesign Project Outcomes Analysis](#).

Rumble, G. The costs and costing of networked learning. *Journal of Asynchronous Learning Networks* 5(2): September, 2001. <http://www.sloan-c.org/publications/jaln/v5n2/index.asp>.

Taylor, T, G. Parker III, & E. Tebeaux. Confronting cost and pricing issues in distance education. *Educause Quarterly* 3: 2001.

WCET costing method, <http://www.wcet.info/projects/tcm/index.htm>.

WICHE Technology Costing Methodology Project, <http://www.wcet.info/Projects/tcm/index.asp>.

Standards

American Council on Education (ACE) (n.d.). Guiding principles for distance learning in the learning society, http://www.acenet.edu/calec/dist_le...ciplesIntro.cfm.

American Distance Education Council. Guiding principles for distance teaching and learning. ADEC, 2002. <http://www.adec.edu/admin/papers/di...rinciples.html>.

American Distance Education Council. Guiding principles for distance learning. ADEC, 2002. <http://www.adec.edu/admin/papers/di...rinciples.html>.

Council of Regional Accrediting Commissions (C-RAC). Statement of the regional accrediting commissions on the evaluation of electronically offered degree and certificate programs, 2000. <http://www.wcet.info/Article1.htm>.

Council of Regional Accrediting Commissions (C-RAC). Statement of the regional accrediting commissions on the evaluation of electronically offered degree and certificate programs, 2000. <http://www.wcet.info/Article1.htm>.

Distance Learning Programs: Interregional Guidelines for Electronically Offered Degree and Certificate Programs. Middle States Commission on Higher Education, 2002. <http://www.msache.org/distguide02.pdf>.

Middle States Association, titled "Characteristics of Excellence in Higher Education." <http://www.msache.org/Characteristics%20book.pdf>

Moving Beyond No Significant Difference, <http://www.center.rpi.edu/PewSym/Mono4.html>.

Open and Distance Learning Quality Council (ODLQC). Standards in open and distance education, 2000. <http://www.odlqc.org.uk/st-int.htm>.

Benchmarking

The *American Productivity and Quality Center* offers guidance for benchmarking, <http://www.apqc.org>.

Middaugh's research titled The Delaware study of instructional costs and productivity: "A consortial approach to assessing instructional expenditures" (in *Higher Education Cost Measurement: Public Policy Issues, Options, and Strategies*, 2000) uses some national benchmarks for traditional instructional courses by discipline. See this URL to read that paper and others. <http://www.ihep.com/Pubs/PDF/CostMeas.pdf>

The *Southern Regional Board Distance Education Laboratory* examines issues such as "tuition, fees and charges, funding methods, costs and resource management, and education as e-commerce. Case studies of four SREB states—Georgia, Kentucky, Maryland, and North Carolina—representing centralized, decentralized, mixed, and freestanding were used in the analysis are described, along with 'lessons learned' from the casework." See "Using Finance Policy to Reduce Barriers to Distance Learning" at this URL: http://www.electroniccampus.org/policylab/Reports/Finance_Final_9.06.pdf.

Key Reports and Research Sites

(See replicable effective practices at Sloan-C "Effective Practices"—cost-effectiveness site.): <http://www.sloan-c.org/effective/index.asp>

(See Sloan cost-effectiveness ALN research included in the following publications.)

Bourne, J. & J. C. Moore. *Elements of Quality Online Education, Volume 3 in the Sloan-C Series*. Needham, MA: Sloan-C, 2002.
Bourne, J. & J. C. Moore. *Online Education, Volume 2 in the Sloan-C Series*. Needham, MA: Sloan-C, 2001.

See ALN research published in the *Sloan-C Journal of Asynchronous Learning (JALN)* : <http://www.sloan-c.org/publications/jaln/index.asp>

American Council on Education (Center for Institutional and International Initiatives— see Cost Awards for Distance Education): <http://www.acenet.edu/programs/cost-awards/>.

Centre for Curriculum, Transfer and Technology, <http://www.c2t2.ca>.

Educause, <http://www.educause.edu/ep/>.

Feldberg, J. Five insider secrets to designing and developing effective online course in record time without a big budget. *Educational Pathways*: January 2002. <http://www.edpath.com>.

Knowledge Media Lab, <http://kml2.carnegiefoundation.org/gallery/index.html>.

Merlot, <http://www.merlot.com>.

TLT Group, <http://www.tltgroup.org>.

World Lecture Hall, <http://www.utexas.edu/world/lecture>.