

COST BENEFIT ANALYSIS OF UCA'S CONCURRENT ENROLLMENT PROGRAM

Prepared by the University Concurrent Enrollment Policy Committee
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The University of Central Arkansas (UCA) is a state-supported institution of higher education. As such, UCA's mission is to provide educational services to the people of Arkansas and beyond. Concurrent Enrollment (CE) programs may be an effective and significant method of delivering education to the surrounding communities. One can safely say that the public appreciates CE programs, for they are popular across the country wherever they are offered. The recent rapid growth of CE programs developed by various institutions in Arkansas testifies to their popularity here. However, to date, UCA has not conducted a meaningful study of its CE program's cost effectiveness, a program now in its third year. In 2008, the Faculty Senate formed an ad hoc committee, the University Concurrent Enrollment Policy Committee, and included in its charge the responsibility for a cost benefit analysis of the program.

Executive Summary

Focusing on explicit costs and applying the most current understanding of allowable revenues,¹ an analysis of the university's Concurrent Enrollment (CE) initiative indicates the program has produced no tangible benefit, absent any plausible numbers regarding matriculation and persistence at UCA due exclusively to the existence of its CE program. However, the university's CE program has incurred costs. Based on data provided by Academic Outreach (Appendix A), the CE program cost the university \$109,000 in the 2006-2007 academic year and \$402,000 in the 2007-2008 academic year, and is projected to cost the university \$471,000 in the 2008-2009 academic year. Additional evidence indicates that departmental expenditures for CE-related activities not contained in these data are at a minimum an additional \$100,000 for 08-09.

Further, the analysis produced no conclusive findings related to the implicit costs and benefits of UCA's CE program. By their nature, implicit costs and benefits are more difficult to articulate and measure; they are the source of the most controversy and disagreement in cost-benefit

¹ For the 07-09 biennium, UCA claimed 110 FTE generated by student enrollment in the University's Concurrent Enrollment program during 06-07, the calendar year on which funding recommendations were based. However, no funds have been distributed to UCA as a result of FTE generated by Concurrent Enrollment in the 08-09 fiscal year. This is the result of formula funding, i.e., the formula for the distribution of state revenue for Higher Education was not fully funded.

According to an Arkansas Department of Higher Education document "Higher Education Formula Funding Process," developed for Legislative Audit January 2009, "In those years when no new funding or limited funding is available, there is little or no impact of concurrent enrollment on funding. When funds are available, the impact of concurrent enrollment on funding is relatively insignificant because [only] the new funds would be distributed by the formula. Only when the formulas are fully funded would there be any real impact from concurrent enrollment."

analyses. The Committee has articulated an inclusive—if not comprehensive—list of the implicit costs and benefits. Some are, by their nature, nearly impossible to measure, e.g., the community’s goodwill. Others, such as matters related to UCA matriculation of former CE students, their persistence, and their academic qualification, require time and dedicated resources to track and analyze before any meaningful conclusions can be drawn.

A General Point About Cost-Benefit Analysis (CBA):

CBA does not attempt to reduce all human aspirations and experience into dollars. CBA attempts to compare highly disparate pluses and minuses but to do so with a common unit of measurement. For example, in adding apples to haircuts, a direct addition of the quantities would be nonsense, but one could add the *dollar value* of apples to the *dollar value* of haircuts. Thus, CBA is conducted in dollars.

Basic Principles of CBA:

- A benefit is a benefit: no matter who receives the benefit, count them all.
- A cost is a cost: no matter who pays the cost, count them all.
- All benefits are created equal: A particular \$1 of benefit is exactly the same as every other \$1 of benefit.
- All costs are created equal: A particular \$1 of cost is exactly the same as every other \$1 of cost.
- All benefits are created equal to all costs: \$1 is \$1, no matter whether it is a cost or a benefit.
- A cost is a cost and cannot be a benefit, just as a benefit is a benefit and cannot be a cost: Make up your mind.
- Count every dollar exactly once: A dollar is a dollar, not two dollars, three dollars, or four dollars. No multiple counting.
- Implicit benefits and implicit costs are just as real as explicit benefits and explicit costs: count them all and count them as equal to explicit costs and benefits.
 - Explicit benefits: Any source or method by which dollars flow *into* UCA accounts.
 - Student-paid tuition and fees
 - State revenues based on CE Semester Credit Hour (SCH)
 - State special revenue for CE program SCH
 - Local, State, Federal grant revenues for CE programs
 - Privately raised revenues for CE programs
 - Explicit costs: Any source or method by which dollars flow *out of* UCA accounts.
 - Rebates of student tuition/fees
 - Stipends/salary assistance for UCA faculty
 - Stipends or assistance for high school (HS) teachers
 - Expenses for materials provided to high schools
 - Expenses for mandatory training for HS teachers
 - Expenses for travel/materials related to program coordination or management
 - Expenses for UCA faculty travel related to CE programs

- Implicit benefits: Any stream of benefits accruing to UCA not immediately or directly tied to cash inflow.
 - Community goodwill, owing to the general popularity of CE programs
 - Students matriculate at UCA because of positive experiences with UCA's CE program as a HS student
 - Former CE students elevate overall retention rates because of positive learning outcomes of UCA's CE program
 - HS CE programs attract high quality students, who may then matriculate to UCA.
 - UCA exercises quality control over CE courses.
- Implicit costs: Any costs incurred by UCA not immediately or directly tied to cash outflow
 - Increased faculty workload or job dissatisfaction
 - Increased use of adjuncts on campus, diminishing overall educational quality
 - Use of scarce faculty time and effort, preventing the development of other beneficial projects at UCA
 - If there is a revenue difference between "normal" SCH and CE SCH, lost revenue due to a decline in "normal" SCH as students matriculate with accumulated CE SCH.

Every CBA begins with the obvious: Tabulating the explicit benefits and the explicit costs. Explicit benefits and costs are those where a tangible dollar flow occurs. That is, a bank account opens up, and dollars flow into it or out of it, and these flows will be recorded on the bank statement.

Many analyses stop with the explicit costs and benefits. Although implicit costs and benefits are real and may be substantial, they are very resistant to measurement and often involve judgment calls that provoke disagreement and controversy.

Explicit Costs & Benefits

Useful to the understanding of explicit costs and benefits is an understanding of the operational model of UCA's CE program. To wit:

Over the past three years, the university has developed affiliations with various high schools and has contracted to offer anywhere from one to numerous sections of a variety of courses. These courses are taught on the high school campuses, using high school facilities and high school personnel, under the guidance of UCA faculty and staff.

A student's outlay to participate in UCA's CE program is currently zero per person, and a high school's final outlay to participate is zero to negligible per school. UCA's rationale has been that as UCA is using high school resources (classes, teachers, equipment, etc.), the university owes the high schools for the lease of these resources. The high school owes UCA student tuition and fees. For accounting purposes, UCA has assumed the aggregate claim by the high schools is

equal to the tuition and fee revenues. Both sides of the exchange have released their claim upon the other. Thus, no revenue is produced by tuition and/or fees.

(This arrangement has not been unusual among Arkansas higher education institutions with CE programs, although the stated rationale may differ. For example, another institution might waive the tuition and fees owing, and call the aggregate waiver a “scholarship” offered to every student who enrolls in a CE course. However, these scholarships must be booked against the state-mandated scholarship cap of 30% of tuition revenue.)

While some have maintained that SCH generated by concurrently enrolled students be counted as “revenue,” as they produce full-time equivalent (FTE) hours, in April 2007, the Arkansas Higher Education Coordinating Board adopted revisions to its Concurrent Enrollment Policy. This directive reads, in part, “Colleges and universities may *not* claim student semester credit hours or funding if (1) tuition is not received by the institution in any form (emphasis added).”²

This policy eliminates from UCA’s CE program all state revenues derived from SCH; thus, the program produces no revenue.

Expenses for the CE program include such items as the high school faculty/staff coordinators; UCA departmental expenses for teacher professional development, UCA faculty travel, UCA faculty overload or adjuncts arising from CE program operations; promotional and general expenditures, and salaries/benefits of UCA staff dedicated to CE programs. Three UCA staff members have been exclusively dedicated to CE.

In FY 06-07, CE program costs totaled \$109,210. In FY 07-08, CE program costs totaled \$401,089. Total costs for FY 08-09 are projected to be \$470,805.

A survey of chairs in departments participating in the CE program reveals additional costs to the university unreimbursed by Academic Outreach. Several departments have reassigned faculty to CE, typically a one-course reassignment though a few faculty have two- and three-course reassignments to oversee CE courses. Chairs also report spending on average one to five hours a week on CE-related duties. Additional costs associated with producing materials were also reported by some chairs. Based upon the survey data, costs to the university not captured within the CE budget of Academic Outreach is minimally an additional \$100,000.

Implicit Costs & Benefits

Conversations around campus revealed several consistent sources of implicit benefits. Frequently, one of the first mentioned is good external relations, especially with area high schools and legislators. CE programs are typically popular with parents, who are also voters, and therefore CE programs are often popular with legislators. CE programs also help “build the UCA brand” within the community, helping keep UCA in the public eye in a favorable light.

²<http://www.adhe.edu/SiteCollectionDocuments/Academic%20Affairs%20Division/Concurrent%20Enrollment%20Policy/ConcurrentEnrollment.pdf>

“Goodwill” is, of course, notoriously difficult to evaluate and rather ephemeral. Goodwill is also notoriously illiquid, especially for not-for-profit organizations. It is difficult to understand how goodwill from CE programs can either be capitalized or liquidated.

Another commonly supposed implicit benefit is the matriculation and retention of former UCA CE students. However, it is not enough to discover whether UCA CE students go on to matriculate at UCA. Many may have done so even in the absence of UCA CE programs.

The Committee would have to determine whether a student chose to enroll at UCA precisely because of good experiences with UCA’s CE program. Doing so would most likely involve tracking these students and administering well-designed surveys. Such activity would require funding, which currently does not exist.

Retention is closely related to academic success. Academic success is very difficult to predict with any precision. The literature indicates that the primary indicators for success and persistence are a student’s standardized test scores and the education level of the student’s parents.

Demonstrating the UCA’s CE program had a significant and causal impact on success and retention would require an extremely complicated statistical analysis covering many years’ of data. The goal of retention efforts is graduating students. For example, although sophomore persistence is one of the better indicators of the likelihood of graduation, it is not perfect. Most schools measure the graduation rate on six-year cohorts.

The first year of substantial enrollments in UCA’s CE program was 2006-2007. Reliable data on graduation rates will not be available until 2012. UCA’s Admissions office has some preliminary data on matriculation to UCA of the university’s former CE students, indicating that roughly one-third of UCA’s CE students enroll at the university. However, the Admissions office has not attempted to survey how many of those students selected UCA instead of another institution *because of the CE program*.

A third common response regarding implicit benefits is quality control. By establishing our own CE programs, we can insist that the high school classes are taught to UCA’s academic standards. However, such a “quality control” benefit would exist if and only if the CE programs offered by other institutions are of lower quality than UCA’s CE programs. To date, no evidence exists to support the proposition that other institutions’ programs are inferior to UCA’s. Therefore, it is unclear whether such a “quality control” implicit benefit exists.”

There appears to be less agreement on the nature of the implicit costs. Foregone revenue is one of the foremost concerns. Had a UCA CE student graduated high school without CE credit and then enrolled at UCA, the university would earn tuition and fees as well as state money for the SCH. However, this argument assumes that if UCA had not offered a CE program at a particular high school, no other institution would offer CE at that high school. The evidence does not support that supposition.

Another source of foregone revenue is the waiver of tuition and fees. Perhaps UCA could scale back the waiver and collect some revenue from high school students. However, other institutions

have shown willingness to waive all student tuition and fees. Should UCA charge any amount above a nominal fee, high schools may be inclined to disassociate with UCA. However, a nominal fee will return only a nominal revenue stream to the university.

One of the most significant implicit costs may be the simple opportunity cost of scarce UCA faculty time and effort. Faculty time and effort is a finite resource, regardless of stipends or overload pay. If the faculty is heavily engaged in CE, there is less time and effort to devote to other on-going university activities or develop new university activities.

Appendix A: Academic Outreach Fiscal Data

<u>AOEP Concurrent Income</u>	<u>Actual FY 06-07</u>	<u>Actual FY 07-08</u>	<u>As of 3/6/09 FY 08-09</u>
Concurrent Credit Collected Funds	592,978.50	741,038.00	1,400,325.00
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	592,978.50	741,038.00	1,400,325.00
<u>AOEP Concurrent Expenses</u>			
Contract Fee Expense	592,978.50	741,038.00	1,400,325.00
High School Coordinators	655.00	78,129.48	88,000.00
Academic Departmental Coordinators	16,000.00	84,500.00	136,720.00
UCA Staff Members	39,000.00	88,936.98	123,465.00
Instruction Payroll (above the contract fee)	10,200.00	55,950.11	13,482.50
Fringe Benefits	19,560.00	44,474.18	65,038.50
Academic Books for High Schools	3,923.14	12,284.80	20,192.42
Program T-Shirts	3,291.32	2,959.33	4,200.00
Handbook Printing	160.08	7,259.98	5,720.73
Additional Promotional Materials	4,157.73	5,737.68	438.42
Staff/Instruction/Administrator Travel	1,594.53	4,026.36	7,556.10
Miscellaneous Supplies and Services	10,668.84	17,830.84	5,991.91
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	702,189.14	1,143,127.74	1,871,130.58
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	(109,210.64)	(402,089.74)	(470,805.58)