CALCULATING COST-RETURN FOR INVESTMENTS IN STUDENT SUCCESS

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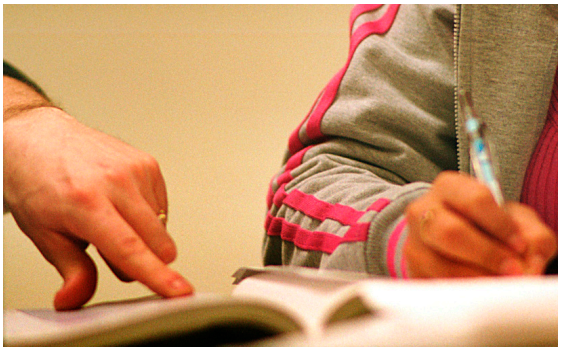
LUMINA FOUNDATION FOR EDUCATION
DELTA PROJECT on Postsecondary Education Costs, Productivity, and Accountability
JOBS FOR THE FUTURE



ACKNOWLEDGEMENTS

The Investing in Student Success pilot was initiated as part of *Making Opportunity Affordable*, a national effort to increase the number of college graduates within available resources while maintaining instructional quality. The ISS pilot was managed by Jobs for the Future, assisted by Roberta Matthews, Provost Emerita, Brooklyn College. The Delta Project on Postsecondary Costs, Productivity and Accountability (Delta Project) partnered with JFF, providing the expertise in higher education cost analysis. SPEC Associates evaluated the pilot.

Funding from Walmart Foundation and Lumina Foundation for Education supported the ISS pilot.

Thirteen colleges participated in the pilot:

- Appalachian State University
- City College of San Francisco
- Indiana University Purdue University-Indianapolis
- Kennesaw State University
- Medgar Evers College-City University of New York
- Trinity Washington University
- University of Missouri-Kansas City
- University of Texas at El Paso
- University of Wisconsin-Parkside
- Valencia Community College
- Wagner College
- Wright State University
- Zane State College

JFF and the Delta Cost Project are grateful to the ISS Advisory Group for their contributions to the development of the ISS Cost-Return tool, and the overall direction of the pilot. Advisory group members include:

Sandy Baum (College Board), Kurt Ewen (Valencia Community College), Bridget Terry Long (Harvard University), Richard Mattoon (Federal Reserve Bank of Chicago), Kay McClenney (Community College Survey of Student Engagement, University of Texas at Austin), George Mehaffy (American Association of State Colleges and Universities), Michael Middaugh (University of Delaware), Karen Paulson (National Center for Higher Education Management Systems), Kenneth Redd (National Association of College and University Business Officers), Janis Somerville (National Association of System Heads) and Gayle Williams (Indiana University-Purdue University Indianapolis).

JOBS FOR THE FUTURE

Through research, action, and advocacy, Jobs for the Future develops promising education and labor-market models that enable American families and companies to compete in a global economy. Across the United States, in partnership with foundations and other national nonprofits, JFF improves the educational and workforce pipelines leading from high school to college to family-sustaining careers. Our initiatives take us to 206 communities in 41 states and the District of Columbia. JFF provides research, idea development, and grant management support for Making Opportunity Affordable. www.jff.org

DELTA PROJECT ON POSTSECONDARY EDUCATION COSTS, PRODUCTIVITY, AND ACCOUNTABILITY

The mission of the Delta Project on Postsecondary Education Costs, Productivity, and Accountability is to help improve college affordability by controlling costs and improving productivity. The work is animated by the belief that college costs can be contained without sacrificing access or educational quality through better use of data to inform strategic decision-making

MAKING OPPORTUNITY AFFORDABLE

Making Opportunity Affordable is a multiyear initiative focused on increasing productivity within U.S. higher education, particularly at two- and four-year public colleges and universities. The aim is to use dollars invested by students, parents, and taxpayers to graduate more students. The initiative relies on partner organizations working within various states to develop, promote, and implement policies and practices that will help achieve this goal. www.makingopportunityaffordable.org

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LUMINA FOUNDATION FOR EDUCATION

Lumina Foundation for Education, an Indianapolis-based, private, independent foundation, strives to help people achieve their potential by expanding access to and success in education beyond high school.

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CALCULATING COST-RETURN ON INVESTMENTS IN STUDENT SUCCESS

THE PILOT PROGRAM: INVESTING IN STUDENT SUCCESS

In late 2007, Jobs for the Future, working with the Delta Project on Postsecondary Costs, Productivity and Accountability, launched *Investing in Student Success*, a one-year pilot program. The pilot, conceived of as part of the *Making Opportunity Affordable* initiative and funded by Walmart Foundation and Lumina Foundation for Education, focused on exploring whether first-year programs designed to retain students are a cost-effective investment for colleges and universities.

JFF and the Delta Project recruited 13 colleges and universities to participate in *Investing in Student Success*. Each institution had student success programs considered effective at serving freshman students, especially low-income, first-generation, at-risk college students. The pilot colleges include public and private institutions with two- and four-year campuses, and the sample was geographically balanced.

This pilot project tied program-level cost data to student outcomes and explored the extent to which the additional revenue that colleges and universities generate by increasing student retention offsets the additional cost of first-year programs. The project's goal was to develop, test, and standardize tools that document the relationship between program costs and student results. Armed with this information, institutions will be better able to make informed, data-driven decisions about how to invest limited dollars in ways that help students succeed. Colleges and universities will be able to calculate revenues associated with retaining students and, potentially, measure costs associated with students dropping out.

The feature product of the pilot is the ISS Cost-Return Calculator, a tool that can help campus and program administrators compare the costs of student success programs to the programs' impact on student retention. The calculator has been tested and refined through the pilot program and further reviewed by an advisory group of higher education experts drawn from the fields of student learning and engagement, institutional research, program administration, and finance.

While *Making Opportunity Affordable* is primarily oriented to state- and system-level policy audiences, the ISS pilot focused on reaching program- and campus-level administrators who are most likely to use cost and evaluation data to make funding decisions about student success programs.

The pilot included university colleges, learning communities, first-year programs, and other types of supplemental academic and student support services. These are among the most promising services that have evolved to improve student-learning outcomes. Many of these programs have been in existence for years, and there is a growing body of literature documenting their effectiveness on many dimensions of student success.[1]

However, there is almost no mention about what these programs cost to operate. By adding the dimension of cost to other measures of program effectiveness, administrators can develop better metrics for examining spending in relation to results, and they can determine whether these investments are paying off through improved rates of retention and graduation. Much of the interest in the pilot among university administrators stemmed from a desire for metrics documenting that student success programs are ultimately cost effective and help colleges retain students, despite additional up-front costs. This information can help strategic planning and continuous program improvement—for example, by making it possible to determine the mix and amount of staff and resources necessary to make a program as productive as possible without sacrificing quality or access.

In addition, because student success programs cross traditional organizational lines between instruction, student services, and academic support, many institutions lack a good way to analyze their cost structures. One of the main goals of calculating cost-return on investment was to better organize data by the basic cost elements of student success programs to make this information useful.

ISS PILOT FINDINGS

MAJOR FINDINGS FROM THE PILOT INCLUDE:

- Data about spending in relation to performance for all campus programs (not just student success programs) are unavailable for most campuses. Thus, there is no context for determining the cost-effectiveness of student success programs compared with other options for increasing degree attainment.
- The annual direct program costs per student varied widely (from $59 to $1,601 per student), as would be expected from the range of types of programs surveyed. However, these program costs remain a fraction of the annual full costs per student for the general student population, which are $6,802 to $19,108 per student for these institutions.
- Seven of the thirteen programs showed an increase in retention that could be associated with participation in the student success programs.
- The ISS Cost-Return Calculator is a useful tool for institution-level decision-making, and specifically for understanding the costs of success for particular students served by certain interventions.
- Almost all of thirteen institutions experienced a "change in conversation" around first-year programs, student outcomes, and cost-effectiveness because of the process of using the calculator.

THE ISS COST-RETURN CALCULATOR

THE ISS COST-RETURN CALCULATOR IS A TOOL TO:

- Calculate average costs per student for student success programs; and
- Compare those costs to gains in student retention that can be attributed to participation in a program.

In a time of constrained resources and a growing sense of urgency about the need to increase degree completion, colleges need better ways to document both programmatic and cost effectiveness. They need this documentation to meet external demands for evidence about resource effectiveness, as well as to know how best to target resources within an institution.

One challenge in developing a cost-return calculator is that the concept of "cost-effectiveness" is very difficult to define within higher education. The metrics for

evaluating effectiveness are not well developed, and it is hard to draw a relationship between spending and results. Moreover, most work on cost-returns in higher education focuses on the broader economic and social benefits to the student and society from getting a college degree. This literature clearly shows that spending in higher education delivers a very high rate of return both to the student and society as a whole. However, *Investing in Student Success* focuses on internal institutional cost-effectiveness and finding ways to evaluate the cost-effectiveness of programs designed to increase student success. The ISS cost-return calculator draws on the literature about cost analysis in higher education, including work on productivity, and ways to evaluate unit costs.

The ISS cost-return calculator does not include a number of student success indicators other than retention rates that can be tied to financial returns to an institution. Indicators such as improvements in student engagement and academic performance—that capture a fuller range of learning outcomes—should be factored into a more robust assessment of program effectiveness in addition to the program's cost-return calculated by the template. For more information about approaches to cost-return analyses and data sources please visit the Delta Project's Web site: www.deltacostproject.org.

DATA NEEDED FOR A COST-RETURN ANALYSIS

THREE TYPES OF DATA ARE NEEDED TO COMPLETE THE COST-RETURN ANALYSIS:

- **Student retention data and comparison group data.** Programs typically document the retention effects of student success programs on students receiving those services as well as comparison data on retention patterns for students who do not receive the supplemental services. Most institutions routinely evaluate their student success programs annually, making much of this data readily available. Getting comparitive data for a similar population of students can be more difficult.

- **Information on staffing and spending for the program.** Typically, the required spending information is available from institutional budget offices or program administrators.

- **Campus-level financial data.** These include data on average expenditures and on revenue from student tuition and fees and state and local appropriations. The ISS cost-return calculator incorporates figures from data reported by the institutions to the federal government. Institutions that have more accurate data from their own sources should use them instead.

As is the case for all evaluation research, the cost-return calculations are most robust if they are based on averages from several years of data and for both spending and performance.

While this is not necessary, it minimizes annual fluctuations due to start-up or one-time expenses or enrollment dips or increases. The accuracy of the cost-return figure also improves if the data on retention for the students served are aligned to the same academic year as the program cost information.

QUESTIONS TO CONSIDER

The ISS cost-return calculator examines both cost effectiveness and program effectiveness, and it can be integrated into department-level or institution-wide decision making. Here are some questions to consider about this kind of analysis before engaging with colleagues on your campus.

Do you have access to the information necessary to do this cost-return analysis?

- Does the program to be analyzed have data on student retention for program participants?
  - Does the institution have retention data for similar students who were not part of the program to allow for comparisons between the two groups?
- Do you have data on program expenses (e.g., expenses for staff, stipends, supplies, and events)?
- Does your institution have several years of program-level retention data and program-level cost data?
- Has your institution done previous work connecting cost and performance measures?
  - Was the analysis conducted at the program level?
  - If so, were programs compared to each other? How were these data used?

How can this tool help your department or college improve data-driven decision making about resources and results?

- Who will be the audience for this work (e.g., college/university administrators)?
- How do you anticipate your target audience using the data?
- Who will need to be involved in conversations about using this information for data-supported decision making?
- How can the cost-return calculator add value to your decision-making process about programs—and the allocation of resources?

- » Can the data on cost and performance at the program level be a useful part of—or a companion to—data collected for the state's accountability system?

How can use of this tool be maximized, and what other uses might it have?

- Based on program design and goals, what other kinds of student outcomes data would it be useful to include in the analysis (e.g., average annual student credit hours completed)?
  - » Does your institution collect and maintain this data?
  - » Is this data that you would retrieve from a system office?
- What additional cost data is needed at the program level to regularly perform this type of cost-return analysis?
  - » Is this data readily available?
  - » Is this data that you would retrieve from a system office?

COMPLETING THE ISS COST-RETURN CALCULATOR WORKSHEETS

The ISS cost-return calculator has four worksheets. Each worksheet relates to one program example including program workload and peformance data, direct and indirect costs, and campus-wide spending over multiple years.

WORKSHEET 1: PROGRAM WORKLOAD AND PERFORMANCE DATA

Use this worksheet to capture data about program workload and performance: number of full-time and part-time students served (to calculate the number of FTE students served[2]); one-year retention rates for program participants; number of participating students retained; and the one-year retention rate for a comparison group of students not participating in the program. Ideally, the students in the comparison group and the program will have similar characteristics (e.g. socio-economic status, first-generation college student, racial/ethnic composition, entering placement test scores, high school GPA).[3]

The calculator uses these entries to estimate the additional number of FTE students enrolled into the next year as a result of the increases in retention associated with the program.

WORKSHEET 2: DOCUMENTATION OF PROGRAM COSTS

Use this worksheet to calculate the total direct costs based on a standard, activity-based format for documenting costs. It includes expenditures funded from all revenue sources. It separates spending into six broad categories: compensated personnel; supplies and equipment; student stipends; events; facilities; and other.

The calculator translates entries into average direct costs per FTE for the program.[4] Indirect costs should not be included on this worksheet, they will be estimated on the Worksheet 3 using institutional data. Please indicate the academic year used; ideally the financial data will be from the same academic year as the student retention data.

WORKSHEET 3: CAMPUS-WIDE SPENDING AND REVENUES DATA

Use this worksheet to estimate campus averages for "indirect" costs, or the shared costs of administration, academic support, and campus operations and maintenance. Also use it to estimate average revenues per student from state and local appropriations and net tuition revenue. These shared indirect costs need to be added to the direct costs of the student services program to yield an approximate "full cost" for the programs. The calculator uses institutionally reported spending data from the Integrated Postsecondary Education Data System (IPEDS) system for this.

The worksheet also captures average institutional revenue per FTE student from the combination of state and local appropriations plus net tuition revenue. The revenue figures are used in calculating the return in revenues from increased investments.

WORKSHEET 4: COST-RETURN CALCULATOR

The final worksheet takes data calculated in the previous worksheets to estimate the additional revenues associated with increased retention. The total additional revenue is compared against total program costs to calculate the dollar amount of net revenue added. This is then expressed as a percentage of expenses recouped from the increase in revenues.

WORKSHEETS

WORKSHEET #1: PROGRAM WORKLOAD AND PERFORMANCE DATA

	2003-2004		2004-2005		2005-2006		3-Year Average	
Student Categories	**Number of students in the program**	**Number of FTE Students in Program**	**Number of students in the program**	**Number of FTE Students in Program**	**Number of students in the program**	**Number of FTE Students in Program**	**Number of students in the program**	**Number of FTE Students in Program**
Full-Time Students	85	85	108	108	127	127	107	107
Part-Time Students	0	0	0	0	0	0	0	0
TOTAL FTE Students	85	85	108	108	127	127	107	107

FTE Calculation=The full-time equivalent of the institution's part-time enrollment is estimated and then added to the full-time enrollment of the institution. The full-time equivalent of part-time enrollment is estimated by multiplying the part-time enrollment by factors that vary by control and level of institution and level of student.	Part-time undergraduate enrollment weight using standard NCES methodology: Public 4-year= .403543 Public 2-year=.335737 Private Not for profit 4-Year=.392857

Category	2003-2004 Program Data	2004-2005 Program Data	2005-2006 Program Data	3-Year Average Program Data
Number of FTE students	85	108	127	107
One-year retention rate for program participants *	83%	82%	86%	84%
Number of participating students retained	71	89	109	89
One-year retention rate for comparison group of students not participating in the program*	63%	63%	64%	63%
Number of participating students retained when using the retention rate of comparison group	54	68	81	68
Additional number of students retained that may be associated with participation in the program	17	21	28	22

WORKSHEET#2 YEAR 1: INVESTING IN STUDENT SUCCESS DIRECT COST TEMPLATE

Spending Categories	Comments/Clarification	Calculation	2003-2004 Total Expenditures	2003-2004 Average expenditures per FTE student
Compensated personnel: All personnel who receive some form of compensation for work in the program, regardless of what budget this comes from	Type of faculty, admininistrative titles, amount/proportion of salary paid from another budget	Annualized FTE (e.g., full-time faculty=1 FTE, part-time faculty=1/3 FTE); For each type of personnel indicate total amount paid; If estimating this amount follow this formula: Number of FTE personnel included*percent of time spent on program* salary	$/year (from all revenue sources);	Total $/year per FTE student
Faculty (e.g., tenured, tenure-track, contract part-time)	Mix of part-time adjunct professors and full-time tenured professors paid from program budget	2 FTE adjuncts devoting 100% to program at $45,000/year= $90,000; 1 Full-time associate professor devoting 20% of time to program at $65,000/year=$13,000	$103,000	$1,212
Other academic personnel (non-faculty academics, such as coaches, tutors, test administrators, computing lab coaches)	Graduate student tutors paid hourly rates, working 3 hours per week (4 week program); 1 test administrator for pre/post-testing under contract for program	5 tutors*12 hrs*$12/hr=$720; 1 test administrator=$6,000 total	$6,720	$79
Administrative personnel (all non-academic personnel, such as student services professionals, departmental staff, clerical support, event staff)	Director of Student Services oversees program; Assistant Dean of English Department creates/updates curriculum. Neither paid directly out of program budget	1 full-time director devoting 10% to program at $85,000/year=$8,500; 1 full-time assistant dean devoting 5% to program at $80,000/year=$4,000	$12,500	$147
Sub-Total: Compensated Personnel			$122,220	$1,438
Supplies, equipment, and expenses	Specific supply/equipment type, one-time charge, etc	Record direct charges to the program only; do not estimate overhead amounts.	Total $/year	Total $/year per FTE student
Computer purchases, cost of internet access, telephones, projectors, supplies, travel	Student-tracking software license-annual charge	$10,000	$10,000	$118
Other instructional materials such as: workbooks, texts, instructional software, course-management software, diagnostic assessments	Binders; testing materials	Binders= $100; Tests=$2,000	$2,100	$25
Sub-Total: Supplies, Equipment and Instructional materials			$12,100	$142
Student stipends, special scholarships, or program-related awards paid directly to students for being in the program.	Purpose of scholarship, criteria for scholarship, number of students receiving scholarship	Note: include only special awards paid to students enrolled in the program; exclude other forms of financial aid or scholarships	Total $/year	Total $/year per FTE student
First-generation scholars	Dependent on participation in program, 14 students received scholarship	14 students*$1,500 scholarship per student=$21,000	$21,000	$247
Sub-Total: Student Stipends			$21,000	$247
Events	Type of program; travel/lodgings required	Include all travel, registration costs, speaker's fees, and costs of rental space if charged to program	Total $/year	Total $/year per FTE student
Student events	Program orientation for students	Furniture Rental=$300; Catering=$900	$1,200	$14
Professional development	4 hour diversity training seminar for all personnel	Diversity expert=$1,500; Rented conference room=$150	$1,650	$19
Sub-Total: Events			$2,850	$34
Cost of Facilities	Specific costs incurred	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Renovation, utilities, rent, or other direct charges for space	n/a	n/a	$0	$0
Sub-Total: Cost of Facilities			$0	$0
Other expenses	Description of items	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Anything that is not accounted for by personnel, student stipends, supplies and equipment, events, or facilities expenditures	n/a	n/a	$0	$0
Sub-Total: Other			$0	$0
TOTAL Expenditures			$158,170	$1,861

Non-compensated personnel and donated goods	Number of volunteers and description of duties performed or goods donated;	Estimate % of FTE that are donated to the project. This will not be included in the total program costs but is useful to know the total amount of resources involved in the program.	Estimate $ value of donated time	Estimate $ value of donated time per FTE student
Types of volunteer work provided to the program	5 former program participants created orientation packets	5*2 hrs*$8/hr=$80	$80	$1
Goods donated to program	Staples donated backpacks		$1,200	$14
Total Non-compensated time/goods			$1,280	$15

WORKSHEET#2 YEAR 2: INVESTING IN STUDENT SUCCESS DIRECT COST TEMPLATE

Spending Categories	Comments/Clarification	Calculation	2004-2005 Total Expenditures	2004-2005 Average expenditures per FTE student
Compensated personnel: All personnel who receive some form of compensation for work in the program, regardless of what budget it comes from	Type of faculty, admininistrative titles, amount/proportion of salary paid from another budget	Annualized FTE (e.g., full-time faculty=1 FTE, part-time faculty=1/3 FTE); For each type of personnel, indicate total amount paid; If estimating this amount, follow this formula: Number of FTE personnel included*percent of time spent on program* salary	$/year (from all revenue sources);	Total $/year per FTE student
Faculty (e.g., tenured, tenure-track, contract part-time)	Mix of part-time adjunct professors and full-time tenured professors paid from program budget	3 FTE adjuncts devoting 100% to program at $46,000/year= $138,000	$138,000	$1,278
Other academic personnel (non-faculty academics, such as coaches, tutors, test administrators, computing lab coaches)	Graduate student tutors paid hourly rates, working 3 hours per week (4 week program); 1 test administrator for pre/post-testing under contract for program	5 tutors*12 hrs*$12/hr=$720; 1 test administrator=$7,000 total	$7,720	$71
Administrative personnel (all non-academic personnel, such as student services professionals, departmental staff, clerical support, event staff)	Director of Student Services oversees program; Assistant Dean of English Department creates/updates curriculum. Neither paid directly out of program budget	1 full-time director devoting 10% to program at $85,000/year=$8,500; 1 full-time ass't dean devoting 5% to program at $84,000/year= $4,200	$12,700	$118
Sub-Total: Compensated Personnel			$158,420	$1,467
Supplies, equipment, and expenses	Specific supply/equipment type, one-time charge, etc.	Record direct charges to the program only; do not estimate overhead amounts	Total $/year	Total $/year per FTE student
Computer purchases, cost of internet access, telephones, projectors, supplies, travel	Student-tracking software license-annual charge	$10,000	$10,000	$93
Other instructional materials such as: workbooks, texts, instructional software, course-management software, diagnostic assessments	Binders; testing materials	Binders= $125; Tests=$2,200	$2,325	$22
Sub-Total: Supplies, Equipment and Instructional materials			$12,325	$114
Student stipends, special scholarships, or program-related awards paid directly to students for being in the program.	Purpose of scholarship, criteria for scholarship, number of students receiving scholarship	Note: include only special awards paid to students enrolled in the program; exclude other forms of financial aid or scholarships	Total $/year	Total $/year per FTE student
First-generation scholars	Dependent on participation in program, 14 students received scholarship	20 students*$1,250 scholarship per student=$25,000	$25,000	$231
Sub-Total: Student Stipends			$25,000	$231
Events	Type of program; travel/lodgings required	Include all travel, registration costs, speaker's fees, and costs of rental space if charged to program	Total $/year	Total $/year per FTE student
Student events	Program orientation for students	Furniture Rental=$350; Catering=$975	$1,325	$12
Professional development	n/a	n/a	$0	$0
Sub-Total: Events			$1,325	$12
Cost of Facilities	Specific costs incurred	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Renovation, utilities, rent, or other direct charges for space	n/a	n/a	$0	$0
Sub-Total: Cost of Facilities			$0	$0
Other expenses	Description of items	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Anything that is not accounted for by personnel, student stipends, supplies and equipment, events, or facilities expenditures	n/a	n/a	$0	$0
Sub-Total: Other			$0	$0
TOTAL Expenditures			$197,070	$1,825

Non-compensated personnel and donated goods	Number of volunteers and description of duties performed or goods donated;	Estimate % of FTE that are donated to the project. This will not be included in the total program costs but is useful to know the total amount of resources involved in the program.	Estimate $ value of donated time	Estimate $ value of donated time per FTE student
Types of volunteer work provided to the program	5 former program participants created orientation packets	5*5 hrs*$8/hr=$200	$200	$1
Goods donated to program	Staples donated backpacks		$1,350	$13
Total Non-compensated time/goods			$1,550	$14

WORKSHEET#2 YEAR 3: INVESTING IN STUDENT SUCCESS DIRECT COST TEMPLATE

Spending Categories	Comments/Clarification	Calculation	2005-2006 Total Expenditures	2005-2006 Average expenditures per FTE student
Compensated personnel: All personnel who receive some form of compensation for work in the program, regardless of what budget this comes from	Type of faculty, admininistrative titles, amount/proportion of salary paid from another budget	Annualized FTE (e.g., full-time faculty=1 FTE, part-time faculty=1/3 FTE); For each type of personnel indicate total amount paid; If estimating this amount follow this formula: Number of FTE personnel included*percent of time spent on program* salary	$/year (from all revenue sources);	Total $/year per FTE student
Faculty (e.g., tenured, tenure-track, contract part-time)	Mix of part-time adjunct professors and full-time tenured professors paid from program budget	3 FTE adjuncts devoting 100% to program at $47,000/year= $141,000; 1 Full-time associate professor devoting 10% of time to program at $70,000/year=$7,000	$148,000	$1,165
Other academic personnel (non-faculty academics, such as coaches, tutors, test administrators, computing lab coaches)	Graduate student tutors paid hourly rates, working 3 hours per week (4 week program); 1 test administrator for pre/post-testing under contract for program	10 tutors*12 hrs*$14/hr=$1,680; 1 test administrator=$10,000 total	$11,680	$92
Administrative personnel (all non-academic personnel, such as student services professionals, departmental staff, clerical support, event staff)	Director of Student Services oversees program; Assistant Dean of English Department creates/updates curriculum. Neither paid directly out of program budget.	1 Full-time director devoting 10% to program at $90,000/year=$9,000; 1 full-time ass't dean devoting 5% to program at $84,000/year= $4,200	$13,200	$104
Sub-Total: Compensated Personnel			$172,880	$1,361
Supplies, equipment, and expenses	Specific supply/equipment type, one-time charge, etc.	Record direct charges to the program only; do not estimate overhead amounts	Total $/year	Total $/year per FTE student
Computer purchases, cost of internet access, telephones, projectors, supplies, travel	Student-tracking software license-annual charge	$10,000	$10,000	$79
Other instructional materials such as: workbooks, texts, instructional software, course-management software, diagnostic assessments	Binders; testing materials	Binders= $200; Tests=$2,800	$3,000	$24
Sub-Total: Supplies, Equipment and Instructional materials			$13,000	$102
Student stipends, special scholarships, or program-related awards paid directly to students for being in the program.	Purpose of scholarship, criteria for scholarship, number of students receiving scholarship	Note: include only special awards paid to students enrolled in the program; exclude other forms of financial aid or scholarships	Total $/year	Total $/year per FTE student
First-generation scholars	Dependent on participation in program, 30 students received scholarship	30 students*$1,000 scholarship per student=$30,000	$30,000	$236
Sub-Total: Student Stipends			$30,000	$236
Events	Type of program; travel/lodgings required	Include all travel, registration costs, speaker's fees, and costs of rental space if charged to program	Total $/year	Total $/year per FTE student
Student events	Program orientation for students	Furniture Rental=$400; Catering=$1,200	$1,600	$13
Professional development	n/a	n/a	$0	$0
Sub-Total: Events			$1,600	$13
Cost of Facilities	Specific costs incurred	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Renovation, utilities, rent, or other direct charges for space	n/a	n/a	$0	$0
Sub-Total: Cost of Facilities			$0	$0
Other expenses	Description of items	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Anything that is not accounted for by personnel, student stipends, supplies and equipment, events, or facilities expenditures	n/a	n/a	$0	$0
Sub-Total: Other			$0	$0
TOTAL Expenditures			$217, 480	$1,712

Non-compensated personnel and donated goods	Number of volunteers and description of duties performed or goods donated;	Estimate % of FTE that are donated to the project. This will not be included in the total program costs but is useful to know the total amount of resources involved in the program.	Estimate $ value of donated time	Estimate $ value of donated time per FTE student
Types of volunteer work provided to the program	5 former program participants created orientation packets	5*10 hrs*$8/hr=$400	$400	$3
Goods donated to program	Staples donated backpacks		$1,800	$14
Total Non-compensated time/goods			$2,200	$17

WORKSHEET#2 THREE-YEAR AVERAGE: INVESTING IN STUDENT SUCCESS DIRECT COST TEMPLATE

Spending Categories	Comments/Clarification	Calculation	Average Total Annual Expenditures	Average Annual Expenditures per Student
Compensated personnel: All personnel who receive some form of compensation for work in the program, regardless of what budget this comes from	Type of faculty, admininistrative titles, amount/proportion of salary paid from another budget	Annualized FTE (e.g., full-time faculty=1 FTE, part-time faculty=1/3 FTE); For each type of personnel indicate total amount paid; If estimating this amount follow this formula: Number of FTE personnel included*percent of time spent on program* salary	$/year (from all revenue sources);	Total $/year per FTE student
Faculty (e.g., tenured, tenure-track, contract part-time)			$129,667	$1,218
Other academic personnel (non-faculty academics, such as coaches, tutors, test administrators, computing lab coaches)			$8,707	$81
Administrative personnel (all non-academic personnel, such as student services professionals, departmental staff, clerical support, event staff)			$12,800	$123
Sub-Total: Compensated Personnel			$151,173	$1,422
Supplies, equipment, and expenses	Specific supply/equipment type, one-time charge, etc.	Record direct charges to the program only; do not estimate overhead amounts	Total $/year	Total $/year per FTE student
Computer purchases, cost of internet access, telephones, projectors, supplies, travel			$10,000	$96
Other instructional materials such as: workbooks, texts, instructional software, course-management software, diagnostic assessments			$2,475	$23
Sub-Total: Supplies, Equipment and Instructional materials			$12,475	$120
Student stipends, special scholarships, or program-related awards paid directly to students for being in the program.	Purpose of scholarship, criteria for scholarship, number of students receiving scholarship	Note: include only special awards paid to students enrolled in the program; exclude other forms of financial aid or scholarships	Total $/year	Total $/year per FTE student
Scholarship/Stipend			$25,333	$238
Sub-Total: Student Stipends			$25,333	$238
Events	Type of program; travel/lodgings required	Include all travel, registration costs, speaker's fees, and costs of rental space if charged to program	Total $/year	Total $/year per FTE student
Student events			$1,375	$13
Professional development			$550	$6
Sub-Total: Events			$1,925	$19
Cost of Facilities	Specific costs incurred	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Renovation, utilities, rent, or other direct charges for space			$0	$0
Sub-Total: Cost of Facilities			$0	$0
Other expenses	Description of items	Direct charges only if billed to project	Total $/year	Total $/year per FTE student
Anything that is not accounted for by personnel, student stipends, supplies and equipment, events, or facilities expenditures			$0	$0
Sub-Total: Other			$0	$0
TOTAL Expenditures			$190,907	$1,799

Non-compensated personnel and donated goods	Number of volunteers and description of duties performed or goods donated;	Estimate % of FTE that are donated to the project. This will not be included in the total program costs but is useful to know the total amount of resources involved in the program.	Estimate $ value of donated time	Estimate $ value of donated time per FTE student
Types of volunteer work provided to the program	5 former program participants created orientation packets		$227	$2
Goods donated to program	Staples donated backpacks		$1,450	$14
Total Non-compensated time/goods			$1,677	$16

WORKSHEET#3: CAMPUS-WIDE REVENUE AND SPENDING DATA

This sheet is provided to record financial data that will be used with the program-level data from Worksheets 1 and 2 to generate the cost-return amount on Worksheet 4. The institutional data can easily be retrieved from the Delta Cost Project TCS Online data system. However, if institutions prefer to use more recent data they can enter it here.

INSTRUCTIONS TO RETRIEVE THE REQUIRED REVENUE DATA:

Go to: www.tcs-online.org

Step 1 Report Filters: Select "Institution Snapshot"

Step 2 Choose Report: Select Revenue--> Total Revenues by Source --> Institution Snapshot

Step 3 Make Filter Choices: Select Year range starting in 2004 and ending in 2006 ; Select CPI as the Inflation Adjustment Index; Select your institution.

Step 4: Click the "Generate Report" button at the bottom of the page.

Step 5: Cut and paste the "Net Tuition" and "State and Local Appropriations" data for 2004, 2005, and 2006 into the table below (this can be done directly from the website if the net tuition and state and local appropriations amounts are cut and pasted separately).

Institutional Revenue Categories	Variable name in TCS Online	2003-2004	2004-2005	2005-2006
Net tuition revenue per FTE student	Net Tuition	$4,634	$4,851	$4,998
State and local Appropriations per FTE student	State and Local Appropriation	$6,136	$5,973	$6,191

Sample data represents the average Public Master's sector revenues from Delta Cost project TCS Online data system

INSTRUCTIONS TO RETRIEVE THE REQUIRED EXPENDITURE DATA:

Go to www.tcs-online.org

Step 1 Report Filters: Select "Institution Snapshot"

Step 2 Choose Report: Select Expenditures--> Spending within Education and Related (E&R) by component and share --> Institution Snapshot

Step 3 Make Filter Choices: Select Year range starting in 2004 and ending in 2006 ; Select CPI as the Inflation Adjustment Index; Select your institution.

Step 4: Click the "Generate Report" button at the bottom of the page.

Step 5: Cut and paste the "Instruction," "Student Services" and "Admin/ Support and Maintenance" data for 2004, 2005, and 2006 into the table below (this can be done directly from the website if the Instruction, Student Services, and Admin/Support and Maintenance amounts are cut and pasted separately).

Institutional expenditures per FTE student	Variable name in TCS Online	2003-2004	2004-2005	2005-2006
Direct costs	Instruction	$5,453	$5,426	$5,492
	Student Services	$1,138	$1,170	$1,180
Indirect costs	Admin/Support and Maintanance	$3,928	$3,986	$4,125
Total education and related costs per FTE student	Total education and related costs per FTE student	$10,519	$10,582	$10,797

Sample data represents the average Public Master's sector expenditures from Delta Cost Project TCS Online data system.

CAMPUS-WIDE REVENUE DATA

	2003-2004		2004-2005		2005-2006		3-Year Average	
Institutional Revenue Categories	Source	Total $/year	Source	Total $/year	Source	Total $/year	Source	Total $/year
Net tuition revenue per FTE student	www.tcs-online.org	$4,634	www.tcs-online.org	$4,851	www.tcs-online.org	$4,998	www.tcs-online.org	$4,828
State and local appropriations per FTE student	www.tcs-online.org	$6,136	www.tcs-online.org	$5,973	www.tcs-online.org	$6,191	www.tcs-online.org	$6,100
Total net tuition and state/local appropriations revenues per FTE Student		$10,770		$10,824		$11,190		$10,928

Sample data represents the average Public Master's sector revenues from Delta Cost project TCS Online data system

CAMPUS-WIDE AND PROGRAM DIRECT, INDIRECT AND TOTAL COSTS

	2003-2004		2004-2005		2005-2006		3-Year Average	
Institutional and Program Expenditures per FTE Student	Institution (see Instructions below)	Program	Institution (see Instructions below)	Program	Institution (see Instructions below)	Program	Institution (see Instructions below)	Program
Direct Costs	$6,591	$1,861	$6,595	$1,825	$6,672	$1,712	$6,619	$1,799
Indirect Costs	$3,928	$1,109	$3,986	$1,103	$4,125	$1,059	$4,013	$1,090
Total education and related costs per FTE student	$10,519	$2,970	$10,582	$2,928	$10,797	$2,771	$10,632	$2,889

Worksheet 2 collects data on the program's direct costs only; to adjust for full costs we have used institutional data to estimate the additional costs attributable to shared overhead that should be added to the direct costs to get a full cost figure. For more information about how shared overhead is calculated at the institutional level please visit: http://www.deltacostproject.org/resources/pdf/issuebrief_02.pdf.

WORKSHEET#4: INVESTING IN STUDENT SUCCESS COST-RETURN CALCULATOR

Category	2003-2004	2004-2005	2005-2006	3-Year Average
Number of FTE students	85	108	127	107
One-year retention rate for program participants	83%	82%	86%	84%
Number of participating students retained	71	89	109	89
One-year retention rate for comparison group of students not participating in the program	63%	63%	64%	63%
Number of participating students retained *when using the retention rate of comparison group*	54	68	81	68
Additional number of students retained that may be associated with participation in the program	17	21	28	22
Net tuition and state/local appropriations revenue per FTE student	$10,770	$10,824	$11,190	$10,928
Total net tuition and state/local appropriations revenue from additional students retained	$183,095	$222,101	$312,639	$239,278
Total program expenses per FTE student (including estimated indirect costs)	$2,970	$2,928	$2,771	$2,889
Total program expenses	$252,427	$316,185	$351,930	$306,847
Net earnings from additional students retained	($69,332)	($94,084)	($39,292)	($67,569)
Percentage of program expenses recouped by retaining participating students	73%	70%	89%	78%

COST-RETURN OVERVIEW

Category	2003-2004	2004-2005	2005-2006	3-Year Average
Total program expenses per FTE student (including estimated indirect costs)	$2,970	$2,928	$2,771	$2,889
Additional number of students retained that may be associated with participation in the program	17	21	28	22
Total net tuition and state/local appropriations revenue from additional students retained	$183,095	$222,101	$312,639	$239,278
Percentage of program expenses recouped by "additional" students retained	73%	70%	89%	78%

ENDNOTES

1. See, for example, the reports prepared for the National Postsecondary Education Cooperative forum on student success, available at http://nces.ed.gov/IPEDS/research/papers.asp, and George Kuh, "High Impact Practices: What They Are, Who Has Access to Them, and Why They Matter (Association of American Colleges and Universities, 2008). Other relevant research can be found in recent work on the effectiveness of college remediation programs—research that typically does not include program-level spending information.

2. While FTE student enrollment may not be the most appropriate measure for some programs, it is necessary for comparing program costs against other institutional expenditures.

3. If a comparable group of students cannot be used as a control, it does not mean an institution cannot complete the cost-return analysis. Rather, it should consider how the differences in the students affect and limit the analysis.

4. For more about cost analysis and activity-based cost reporting, see the National Center for Academic Transformation's materials on cost analysis related to course-redesign, available at www.center.rpi.edu; the Teaching, Learning and Technology Group's "Flashlight Cost Analysis" metrics, reported in www.tltgroup.org/Flashlight/Cost-Anal-HB.htm, and John Milam, "Cost of Instruction: Research and Praxis," available at www.highered.org/docs/milam-costofinstructionsynthesis.pdf; and Corash and Baker "Calculating the Productivity of Innovation" www.communitycollegecentral.org/StateInitiatives/Colorado/ColoradoCost_Benefit.pdf. Issues about the opportunity costs of these programs also arise in some institutions. Decisions to invest in these programs require judgments about academic as well as fiscal priorities. Unless these programs are funded from supplemental revenue sources, institutions choosing to provide marginal dollars to these programs take these resources away from other areas that are also institutional priorities. In thinking about the trade-offs connected with investment decisions of this type, these issues need to be factored into thinking about how to evaluate cost-effectiveness.

5. Numbers in the worksheets may not sum to total due to rounding.

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