Report of the Subcommittee on Costs, Academic Master Planning Task Force

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Subcommittee on Costs:
Gary Berg, Dean of Extended Education
William Cordeiro, Professor of Business
Scott Frisch, Associate Professor of Political Science
Nancy Mozingo, Assistant Professor of Biology

Background:

The costs associated with implementing and sustaining high quality academic programs vary considerably by discipline. Although the costs of an academic program should not be the driving force behind the decision to pursue an undergraduate academic major, graduate degree, or credential program, some consideration needs to be given to the overall financial impact of each decision made in the academic planning process. The following report summarizes our preliminary research on academic programmatic costs, highlighting the factors that should be considered by decision makers.

The analysis presented below is meant to be a first effort at identifying and quantifying the costs associated with *operating a fully implemented academic program*. The start-up costs of programs vary considerably as well; however, there is virtually no benchmark data available on the cost of initiating a new program. As a start-up university in the twenty first century, CSUCI has few models to learn from; therefore costs associated with implementing a new program (technology and equipment needs, for example) need to be considered on a case by case basis. In addition, no effort has been made in this report to capture the additional facilities costs that can be quite substantial for programs requiring space that exceeds the traditional classroom (such as labs, sports facilities, and performance venues). Finally, the cost of specialized accreditation and licensing associated with some programs cannot be ignored. The increased cost associated with this kind of accreditation can come from guidelines on the number of full-time faculty per student (limiting class size), consultants and/or faculty release time for preparing and updating accreditation, mandated resource levels (library facilities for example), and fieldwork or clinical hours requirements. We urge decision-makers not to overlook the

potentially costly expenses that can be associated with starting a new program and program accreditation, and recommend that a detailed resource analysis be undertaken as part of the program approval process for each new program.

Undergraduate Degree Program Operating Costs:

It is first necessary to distinguish between the costs of undergraduate and graduate programs when seeking to compare costs across disciplines. Graduate classes typically are taught in seminar format, necessitating smaller student faculty ratios than are common in undergraduate courses. As labor costs typically comprise 85 to 90 percent of direct instructional costs, fewer students per faculty member equates to higher cost of instruction. The California State University Chancellor's Office recommends special considerations for implementation of new master's degree programs (see below), therefore graduate programs will be considered separately in this report.

There are several sources of benchmark data related to the costs of undergraduate education. While none of the data sources provides a complete picture of the costs of operating an undergraduate program, taken together data from the different sources provide a basis for comparison between the costs associated with different academic majors. The National Study of Instructional Costs and Productivity (typically referred to as the Delaware Study) provides benchmark data on the average direct cost to educate a student at a comprehensive university. These data have been collected for undergraduate disciplines typically found at most colleges and universities.[1] While the most recent data from the Delaware Study are from the 1997 academic year, these data do allow for the relative costs of different programs to be compared.

In addition, the California State University Chancellor's Office collects data on the average student faculty ratios (SFR) of programs offered throughout the system, and these data are helpful in determining how labor intensive a given program may be. As faculty labor is the driving costs behind the delivery of academic programs, SFR's provide a useful surrogate for comparing the costs of different academic programs.

Finally, there is a relationship between program size and program cost. Academic majors must maintain sufficient enrollment to support the array of specialized upper division course offerings typically filled only by majors. Major programs failing to meet a threshold size typically are a drain on the resources of a university, as upper division courses necessary for students to graduate must be regularly offered even if enrollments are low. Therefore, data on the relative enrollment potential of majors are directly related to costs. In addition a strong measure of a major's feasibility is the upper division

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[1] See U.S. Department of Education, National Center for Education Statistics. *A Study of Higher Education Instructional Expenditures: The Delaware Study of Instructional Costs and Productivity*. NCES 2003-161, by Michael F. Middaugh, Rosalinda Graham, and Abdus Shahid. Project Officer: C. Dennis Carroll. Washington, DC 2003. and Middaugh, Michael F. 2001. "Measuring Higher Education Costs: Considerations and Cautions." In Alisa F. Cunningham et al ed. Study of College Costs and Prices, 1988-1989--1997-1998. Volume 2: Commissioned Papers. NCES 2002-158. U.S. Department of Education, Office of Educational Research and Improvement. Washington, DC.

student faculty ratio which should not be significantly less than the CSU average SFR of 21.4 to 1.

Table One includes available data on relevant undergraduate majors for all programs listed on the preliminary curriculum plan of June 2004, as well as all majors currently offered at CSUCI. Programs are ranked in order of number of graduates (or credentials granted) from the California State University system in academic year 2003. The year column indicates the year that the program was slated for implementation under the plan submitted in June 2004. The national cost figures were obtained from the Delaware Study. CSUCI costs are the total 2005-2006 expenditure recommendation from the Academic Resources Committee for the program divided by the program's FTES target. CSU SFR data for each program as well as upper division courses offered by a program were obtained from the CSU Academic Discipline Report [http://www.calstate.edu/cim/APDB] published by the CSU Chancellor's Office, and total 2003 degrees awarded by the CSU system were obtained from the report Undergraduate Degrees Granted by Campus, Major and Sex 2002-2003 [http://www.calstate.edu/as/stat_reports/2002-2003/deg05.htm].

Table One

Program	Year	National Cost	CSUCI Cost/FTES	CSU SFR	CSU UD SFR	2003 CSU Degrees
Education	Current	3521	6411	16.9	18.4	Credentials
Business BA	Current	3703	6691	26.3	27	13057
Liberal Studies BA	Current	3065				6381
Psychology BA	Current	2819	3647	28	28.1	3648
English BA	Current	3019	5753	20.1	20.6	1871
Criminal Justice BA	2010	2711		31.5	32.2	1780
Communications BA	2008	3471		22.1	21.8	1770
Sociology BA	2005	2746	5191	30.1	27.4	1735
Computer Science BS	Current	3376	8694	18	18.5	1656
Art BA	Current	4568	5775	18.8	17.1	1582
Child Development BA	2007			22.1	21.7	1568
Biology BS/BA	Current	3700	10726	20.1	16.5	1554
Kinesiology BS	2009	3319		14.6	16.5	1394
Nursing BS	2010	7230		12	12.5	1259
Political Science BA	2006	3582	5269	30.5	22.7	1112
History BA	Current	3122	4091	29.1	21	1108
Performing Arts (Music, Theater, Dance)	2006	5385				877
Economics BA	2005	3213		29.8	23.8	635
Spanish BA	2005	2962	5552	21	18.7	446
Music BA	2013	6346		16.2	15.4	426
Mathematics BS	Current	3283	5059	25.1	16.7	425
Anthropology BA	2007	3020	4858	26.5	23.4	388
Geography and Urban Studies BA	2009	2953		24	20.4	329
Environmental Science & Resource Mgmt	Current		12254			273
Philosophy BA	2009	3173		29.1	23.5	268
Chemistry BS/BA	2005	4439	11306	18.2	13.4	218
Multicultural Studies BA	2007	3102		24.2	20.5	171
International Relations BA	2014					155
Film Studies BA	2014					150
Geology BS/BA	2008	4607		20.8	17.4	124
Physics BS/BA	2007	5049	9623	17.1	9.6	110
Chicano Studies BA	2007	3102		23.2	23.2	93
Gender Studies BS	2007					55
Language TBD BA	2012	3794		19.7	14.7	
Integrated Education BA and Credential	2008	3521				
Computer Systems BS	2007					
Activism and Social Processes BA	2011					
Biomedical Engineering/Medical Imaging BS	2012					
Integrative Studies BA	2008					
Nutrition BS	2010					
Working Class Studies BA	2012					

Graduate Programs:

Graduate programs present a different set of cost assumptions. Graduate courses tends to be more labor intensive, with students attending classes that are typically much smaller than undergraduate courses, leading to much lower Student Faculty Ratios. In addition, all graduate programs in the CSU require some type of culminating experience (a thesis for example) which requires extensive one to one interaction with faculty and this places additional demands on faculty workload. Finally, graduate programs frequently require administrative oversight and support that may be disproportionate when compared with undergraduate programs.

The CSU Chancellor's Office is cognizant of the higher costs associated with graduate education, and has issued guidelines to campuses as they consider implementing new master's degrees. A memo from Executive Vice Chancellor David S. Spence to CSU presidents (December 20, 2004) recommends: "

> New master's degree programs should be projected only when the sponsoring department is well established and has achieved a level of quality that has been affirmed by a program review or, in subjects for which national accreditation is available, by a visiting team.

In addition:

> New master's degree programs should be initiated only if (1) they have the enrollment potential to support the offering of at least four graduate-level courses each year, (2) there is evidence of the proposing department's capacity to support the level of research required for a graduate program, and (3) sufficient graduate-level coursework can be offered to permit a student's program to include 70% graduate-level coursework.

Table Two depicts data on the number of degrees granted to students in Masters Programs throughout the CSU (note that specialties within a program area – for example Botany within Biology or Creative Writing within English have been omitted). In addition, the table includes the average Student Faculty Ratio for programs in the CSU System drawn from the Academic Disciplines Report referenced above. Notice that even the highest enrollment graduate programs have lower ratios than undergraduate majors.

Table Two: Masters Programs

Program	Year	CSU SFR	2003 Degrees
Education MA	SS	14.7	4923
Business Administration MBA	SS	14.5	2371
Public Administration MPA	2009	13.5	491
English MA	2006	8.7	449
Computer Science MS	SS	11.5	448
Nursing MS	2010	9.7	395
Art MFA	2015	7.5	362
Biology MS	2008	5.5	241
History MA	2013	6.8	156
Mathematics MS	SS	8	103
Spanish MA	2011	9.6	70
Chemistry MS	2013	4.6	54
Management Information Systems MS	2011	12.2	22
Film and TV Production MFA	2009		19
Creative Writing MFA	2015		15
Clinical & Counseling Psychology MA	2011	7.8	12
Cognitive Science MA	2013		
Educational Technology MA	2010		
Peace and Conflict Studies MA	2008		
Visual Studies MA	2015		

Recommendations:

CSUCI should require all new programs seeking implementation to include a detailed study of both direct and indirect costs associated with beginning and sustaining a quality academic program. These costs should include, but not be limited to: new faculty salaries and benefits, equipment, supplies, facilities, and support staff as well as any costs resulting from accreditation or licensing.

CSUCI should develop a mix of programs to ensure that expensive programs are offset by less expensive programs and graduate programs are offset by undergraduate programs.

CSUCI should apply the Chancellor's Office guidelines when considering new graduate programs.