

USC Committee on Academic Programs and Teaching (CAPT) report on the Minor's Program at USC.

2008-2009 CAPT Committee

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This report was made possible through the efforts of members of the 2008-2009 CAPT and USC's Department of Academic Records & Registrar headed by Dean Ken Servis. We would like to recognize in particular, Mr. Ray Gonzales for his effort in assembling the demographic data used to describe enrollment trends in this report.

Vice-president Beth Garrett assembled the CAPT committee in December of 2008 with the charge of evaluating USC's Minors Program. The importance of this exercise was highlighted by outcomes from the WASC Accreditation site visit, where the site visit team honed in on our Minors Program. The WASC site visit team wanted USC to justify the offering of minor's as many Schools have moved away from the minors/double majors' model.

What are the objectives of the minors?

The undergraduate degree is no longer the terminal degree for most of our students, which means we as faculty need to adapt the way we think about the structure of their undergraduate course of study. A major goal of USC's Minor's Program was to create "breadth with depth" and the Renaissance Scholars serves as a very successful implementation of this model. The question of how is this goal is best achieved was raised, and the view was there was not a single recipe, but that interdisciplinary minors have inherent breadth created by taking a minor far away from the major field of study. This being said, another equally important goal of the minor can be to deepen the major study or the training for a profession. Examples of this trajectory would be communication and psychology or business and foreign language.

Are we achieving the goal of "breadth"?

To address this question we examined data from Department of Academic Records & Registrar. 150 minors are listed each semester at USC. In data obtained for the spring semester of 2009 there were a total of 1294 different minor-major pairings. Thus, on the surface, the opportunity for breadth is enormous. However, many of the minors offered are not pursued, which raises an important issue of how to assess our minor offerings as a university? Do we have too many on the books and can we create a method by which each program assesses the need to keep minors on the books? When we eliminated participation of 2 students or less in possible major-minor pairings for the spring 2009 data set we found the number of pairings was reduced to 230 (3 or more students participating). Again, a number like 230 different major-minor pairings suggests opportunity for breadth is being achieved. By far, the most sought out minor, irrespective

of the student's major was the minor in Business. Table 1 below ranks the enrollment in minors from most popular to least popular during Fall 2008. Only the top 39 of the total of 150 minors offered are shown in Table 1. Again, the reality is many minors are on the books, but some have never had students enrolled. CAPT addressed this issue of non-enrollment and suggested an agency like the Department of Academic Records & Registrar develop a form letter to be sent to the school or department asking the program to evaluate whether they want to continue to offer the minor.

TABLE 1 MOST POPULAR MINORS AT USC (by enrollment)

Minor Enrollemnt (2008)	150 minors offered at USC (2008)
238	Business
127	Spanish
109	Psychology
103	Music Industry
95	Cinema-Television
84	Communication and the Entertainment Industry
75	East Asian Languages and Cultures
72	Entrepreneurship
70	Marketing
66	Advertising
64	Business Law
62	International Relations
60	Natural Science
58	Communication Design
57	French
55	Economics
55	Theatre
51	Forensics and Criminality
48	Art History
46	News Media and Society
45	Musical Studies
40	Psychology and Law
38	Sociology
37	Political Science
34	Architecture
31	Music Recording
30	Philosophy
28	Musical Theatre
25	Mathematical Finance
24	Video Game Design and Management
23	Consumer Behavior
23	Gender Studies
23	Law and Society
22	Screenwriting
22	Classics
22	German
22	Biotechnology
21	Accounting
20	Peace and Conflict Studies

TABLE 2 RANK BY SCHOOL FOR MINOR PARTICIPATION (#'s)

MINORS (ranked by #s) - 2009	total # of minors in each school	
		% of total
LAS-Social Sci	558	20.3
Marshall - Business	486	17.7
LAS Humanities	461	16.7
School of Music	251	9.1
LAS-Natural Sci/Math	195	7
Annenberg	189	6.9
Roski - Fine Arts	116	4.2
School of Cinema Arts	115	4.2
School of Engineering	91	3.3
School of Theatre	81	2.9
PPD	80	2.9
Keck	58	2.1
School of Architecture	32	1.2
Social Work	14	0.5
LAS-other	13	0.5
Gerontology	8	0.3
Rosier - Education	4	0.17
Dentistry	1	0.03
		100
total minors	2753	
LAS total	1227	44.6

Examination of the top 15 minors selected by students in Table 1 suggests undergraduates at USC, in general, use a calculated approach where they select a minor based on its applied use in society. Consequently, it is no big surprise that the business minor is the most popular minor. Further examination of the most popular minors at USC suggests that many undergraduates may choose a minor based upon factors unique to the Southern California community. Our community has a very large Hispanic and Asian-American population and minors related to these communities are very popular and of course, USC's proximity to the entertainment industry coupled with its strong programs in this specialty area likely explains the popularity of entertainment-related minors. Table 2 ranks programs and or schools by their enrollment of minors, with the college broken down into social science, humanities and natural science/math. A quick review of table 2

reveals that two programs, The College of Letters, Arts and Sciences (LAS) and The Marshall School of Business lead the way in terms of total number of students enrolled in minors. The lure of business as a minor is obvious, but what has the college done to attract so many minors? The analysis of CAPT as well as input from USC's Council on Academic Advising (CAA) identified a couple a key reasons likely contributing to the success seen by the college.

TABLE 3 - ENROLLMENT OF ALL USC STUDENTS IN MINORS (freshman-senior) AND % OF STUDENTS STAYING IN MAJOR SCHOOL FOR MINOR

2009	Total # of students taking Minors	Total # of majors enr for sp 2009 as of 1/9/09	% of students taking minors by school	% of students take minors in major school
SCHOOLS				
Annenberg School for Communication	423	1263	33.5%	34%
College (LAS) - Total	1183	5953	19.9%	45%
College (LAS) - Humanities	210	907	23.2%	39% LAS, 0% LAS Humanities
College (LAS) - Natural Science & Math	318	1448	22.0%	52% in LAS, 26% in LAS Sci/Math
College (LAS) - Social Science	639	2662	24.0%	48% in LAS, 29% in LAS Social Sci
College (LAS) - other	16	936	1.7%	85% in LAS
KECK - Health Promotion?	67	259	25.9%	0%
Gerontology	8	30	26.7%	0%
Leventhal - Accounting	40	404	9.9%	?
Marshall Business	397	2835	14.0%	0%
Roski Fine Arts	38	243	15.6%	0%
Rossier School of Education	4	8	50.0%	0%
School of Architecture	41	501	8.2%	0%
School of Cinematic Arts	142	871	16.3%	0%
School of Dentistry	2	88	2.3%	?
School of Pharmacy*	1	709	0.1%	?
School of Policy, Planning & Development	74	338	21.9%	0%
School of Theatre	78	432	18.1%	0%
Thorton School of Music	86	488	17.6%	0%
Vertibi School of Engineering	169	1701	9.9%	26%
Total USC students	2753	16123	17.1%	

First, the College houses a vast number of programs and multiple minors within each of these programs and or departments. In total, the College offers 77 different minors. Thus, students can achieve “breadth” or “depth” without going outside the college. Second, the College is ahead of the rest of the university in its web page design and its use of a “luring” icon for undergraduates to investigate minors offered within the college. Clicking on this “minors” icon sends the student to an easily navigated page for learning about the 77 college minors (see <http://college.usc.edu/admission/> & <http://college.usc.edu/cf/majors-and-minors/majors-and-minors.cfm>). Third, College advisors communicate across programs and an “organizational” culture exists within the College that translates into advisors encouraging undergraduates to seek breadth in their education. Lastly, undergraduates majoring in programs found within the college are required to graduate with 104 units from the college that are in fulfillment of the major (of the 128 required graduation total for a USC degree). If you minor in any program at USC, that number is reduced to 96 units creating an incentive to seek a minor offering courses outside those required for your college major. A disproportionate number of college students stay within the college when selecting a minor. Table 3 illustrates this trend, with 45% of “college” majors who enroll in the minors program choosing to stay within the college for their minor (Table 3). Again, with 77 minor offerings “breadth” can be achieved by staying within the college to minor. Closer examination of the data indicates that roughly 20% of college students who minor stay within their own major specialty when they minor (Humanities, Social Science, Natural Science & Math), suggesting these students are seeking “depth” within their major when selecting a minor (Table 3).

This trend of staying within your major school when selecting a minor is also seen for Annenberg School of Communication majors (34%) and Viterbi School of

Engineering Majors (26%). In contrast to the college, Annenberg offers only 3 minors and Viterbi offers 14 minors. Thus, these Annenberg and Viterbi minors are more likely to be seeking “depth” within their specialty area of education when choosing a minor. The minor’s data shown in Table 3 is for Spring 2009 and for all classes (Freshman through Seniors).

Another measure of success: Overall participation by USC undergraduates in the minors program.

To address the issue of how many students seek to graduate from USC with a minor we studied data on the graduating class of 2008 supplied to CAPT by USC’s Department of Academic Records & Registrar (Table 4). Graduating senior data (Table 4) is preferable to the entire student population (Table 3)(freshman through senior) as students add the minor at different stages in their academic career. Looking in the middle column of table 4, you can see that 29% of the 2008 graduating class graduated from USC with a minor. We highlighted high participation schools in **blue** and low participation schools in **red**. We already addressed reasons likely contributing to high participation in the college (web site, diversity of offerings, unit incentive). The highest participation rate, however, is found in graduates of the Annenberg School of Communication, with 53% of graduating seniors successfully completing a minor while attending USC. As indicated above, 34% of Annenberg students choose to minor in programs found within the Annenberg School of Communication. So an obvious question is what is different about the Annenberg program such that so many of their majors elect to minor while at USC. The Annenberg School of Communication does not have an extensive web page developed for their minors program and the Annenberg School of Communication offers only 3 minors, thus these two factors, which appear to be important for the college, are not a major factor operating at the Annenberg School of Communication. Discussions with academic advisors from the student services office at Annenberg revealed that advisors take a leading role in encouraging students to minor. The advisors hold “minor’s information sessions” and they ask each student they advise during one on one sessions if they have ever considered at minor at USC. A similar culture exists for College advisors, as mentioned previously, which likely translates into increased participation.

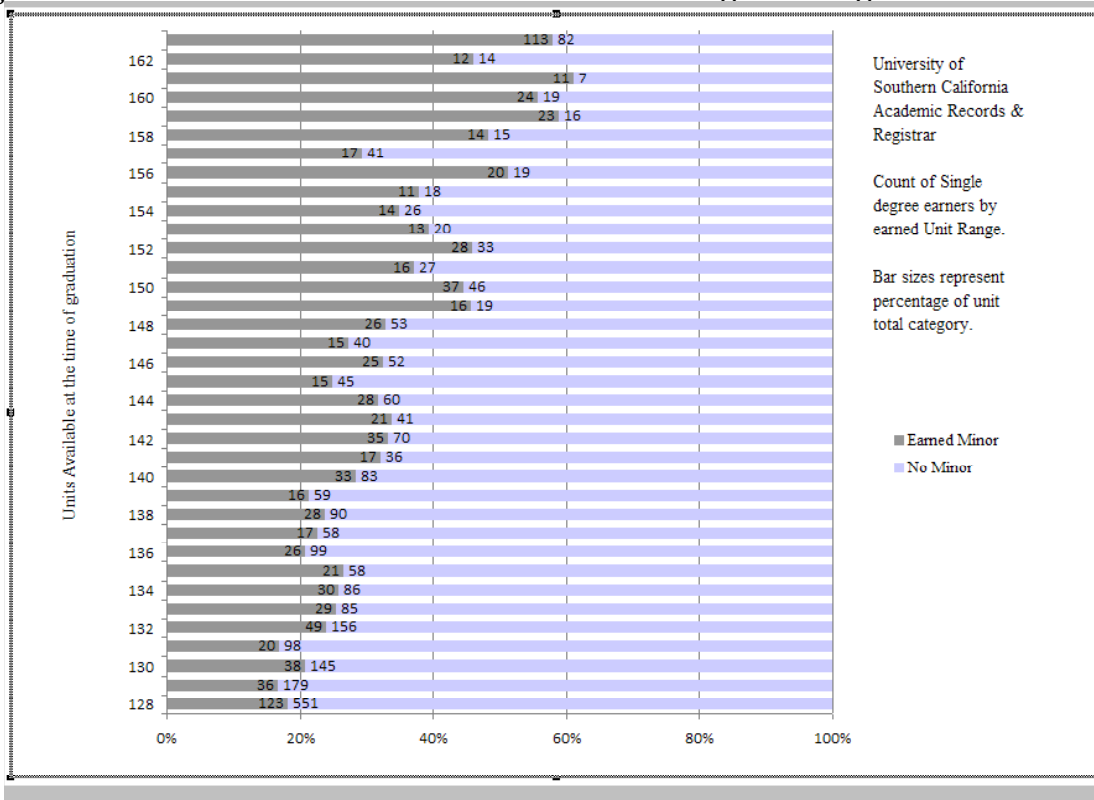
TABLE 4 - % OF USC STUDENTS GRADUATING WITH A MINOR & UNIT DISPARITY

2008 graduating class	% graduating with minor		Ave. extra units needed for minor
All USC Graduates	3,563	29%	18.2
Annenberg School of Communication	343	53%	28.1
LAS - Humanities	264	42%	13.3
LAS - Natural Science/Math	265	38%	17.9
Las - Social Science	724	40%	13.9
Keck	90	40%	15.1
Leventhal - Accounting	149	4%	38.8
Marshall - Business	874	17%	28.4
Roski - Fine Arts	47	23%	22.2
School of Cinema	192	29%	21.8
Policy, Planning and Development	99	25%	15.9
Theatre	57	33%	23.9
Thorton School of Music	71	24%	12.7
Viterbi - Engineering	318	10%	26.5

An equally important outcome of the analysis is the relatively low participation found at two of USC’s largest schools, The Marshall School of Business (17%) and the Viterbi School of Engineering (10%) as well as the Leventhal School of Accounting (4%). CAPT

had representatives from these two programs, which enlightened the committee to factors operating at these two schools to limit participation in USC’s minors program. Beginning with the Viterbi School of Engineering, Steve Bucher indicated the course requirements for students majoring in the School of Engineering is significant and it reflects the limitation inherent to being an ABET accredited School. ABET, Inc., is the recognized accreditor for college and university programs in applied science, computing, engineering, and technology that is made up of a federation of 30 professional and technical societies representing these fields. ABET accreditation is assurance that a college or university program meets the quality standards established by the profession for which it prepares its students. Sandra Chrystal from the Marshall School of Business indicated a different situation exists at the Marshall School of Business. All students majoring in Business are recommended to complete a 16-unit “concentration” that provides them with a “specialty certificate” in addition to their diploma when they graduate from the business school. The concentration program is very individualized and it includes opportunities to include courses from USC’s overseas program (institutions abroad). While, the business school offers 11 different minors, those students who major in business are only eligible to complete one minor from this selection, the “consumer behavior” minor. Thus Marshall undergraduates obtain the depth in a specialty via the “concentrations” program and not through their minors program, which is in contrast to the often-pursued depth through minors seen in the Annenberg School of Communication. The business major has only 20 units of electives so students need to plan very carefully in order to complete a minor. Leventhal Accounting majors have even less free units (14 units) and many accounting majors double major in business. Thus similar factors exist in Accounting, Business and Engineering: 1) Not many free units exist for pursuing a minor and 2) students are very focused and they usually elect to take as many courses as possible within their fields (business and engineering) as possible. Academic Advisors indicate GE courses are, for the most part, the source of breadth in these programs.

Figure 1 – Number of units taken versus % of Students graduating with a minor at USC



CAPT built upon this theme of “unit limitations” and examined data supplied by USC’s Department of Academic Records & Registrar and found, indeed, irrespective of the home school where the student majored, undergraduates who seek a minor, on average, take significantly more units than those who elect not to minor. The right hand column in Table 4 lists the average disparity in units at the time of graduation between undergraduates who only major versus undergraduates who major and minor while at USC. The numbers are quite dramatic. An even more amazing illustration can be found by looking at a graph compiled by USC’s Department of Academic Records & Registrar, which clearly illustrates the number of units acquired at the time of graduation versus the likelihood of graduating with a minor (Figure 1).

In figure 1, the grey bars represent the % of students graduating with a minor (the number of students in the bin are indicated). The light blue bars represent the % of students graduating without a minor for that unit bin group (raw numbers are indicated).

The association between the number of units taken and the successful completion of a minor at USC lead CAPT to ask the question of whether cost becomes an issue for students to take a minor? We were able to gather a quantitative measure of the answer to this question by asking USC’s Office of Financial Aid and USC’s Department of Academic Records & Registrar to provide us with data on students who receive scholarship support at USC and whether this kind of support changes the likelihood of pursuing a minor at USC.

USC’s Department of Academic Records & Registrar started with 3 questions:

1. Are needy students (Pell grant recipients) disproportionately represented in the population of minor earners compared to those without minors?
2. Do students who earn minors finish with more debt than students without minors?
3. Are students receiving gift merit aid (e.g., Trustees, Presidential, Dean's scholarships) disproportionately represented in the population of minor earners compared to those without minors?

The financial aid data for single-degree students graduating in Fall 2007, Spring 2008, or Summer 2008 were analyzed.

1. Are needy students (Pell grant recipients) disproportionately represented in the population of minor earners compared to those without minors?

		Minor	No Minor	Total
Any Pell \$?	NO	821	1928	2749
	% of No	30%	70%	
	YES	196	618	814
	% of Yes	24%	76%	
All Students	Total	1017	2546	3563
		29%	71%	

The Pell Grant designation is generally accepted as a proxy for low-income status because of the eligibility requirements associated with the grant. Of the 3563 students earning a single bachelors degree, 814 (23%) received at least \$1 of Pell Grant money at some point during their academic career at

USC. **When a student is low income, there is a 24% chance they will earn a minor upon**

graduation. If a student is not low income, there is a 30% chance of earning a minor, suggesting that low-income students are under-represented in the population of earned minors.

2. Do students who earn minors finish with more debt than students without minors?

Table 6

		Minor	No Minor	Total
Need Based Loan	Count	449	1093	1542
	Average Debt	\$16,422	\$16,069	
Non-need Based Loan	Count	385	1006	1391
	Average Debt	\$48,763	\$42,622	
Students w/ Loan	Total	548	1293	1841
	% of All Students	54%	51%	
All Students	Total	1017	2546	3563

Loan information is divided into two categories, need-based and non-need based. 1841 (52%) of 3563 single degree-earning students finished having to borrow at least \$1 during their time at USC. 43%

(1542/3563) of graduates had to take a need-based loan; while 39% (1391/3563) of graduates took non-need based loan money. Students earning a minor are a little more likely to take a loan than students not earning a minor (54% of graduates earning a minor compared to 51% of graduates with no minor). When students do take a minor, they generally will borrow more than students without a minor, particularly when the money is not need-based. **Collectively, students graduating with a minor are more likely to borrow, and borrow more money than students without a minor.**

3. Are students receiving gift merit aid (e.g., Trustees, Presidential, Dean's scholarships) disproportionately represented in the population of minor earners compared to those without minors?

Table 7

		Minor	No Minor	Total
Merit Aid?	NO	565	1764	2329
	% of No	24%	76%	
	YES	452	782	1234
	% of Yes	37%	63%	
All Students	Total	1017	2546	3563
		29%	71%	

Merit Aid encompasses institutional awards based on merit. Of the 3563 students earning a single bachelors degree, 1234 (35%) received at least \$1 of non-athletics-related merit-based aid at some point during their academic career. When a student receives merit-based aid, there is a 37%

chance they will earn a minor when they graduate. **If a student receives no merit-based aid, there is a 24% chance of earning a minor. Merit aid students are 13% more likely to earn a minor than students not receiving a merit-based award. Students with merit-based aid are disproportionately represented in the population of earned minors.** CAPT noted that students receiving merit awards might be disproportionately represented in the population of students receiving minors because, as a group, they may be intellectually more motivated to pursue a minor.

CAPT recommendations for increasing undergraduate participation in USC's minors program

IMMEDIATE ACTION STEPS:

1. **Improve USC's website for minors.**
 - (a) CAPT recommends that USC modify the university website to make the Minors Program more prominent, and also to make the navigation simpler and more informative. Undergraduates have to hunt for the information about minors, and ultimately they are directed to the USC catalogue (click on academics, click on undergraduate programs, click on minors, click on the minor and then end up at the USC catalogue). The catalogue destination is thick with detail, and each program's minor is lost within the larger description of that school or department's entire undergraduate program. The College's website is an excellent model, and the university should adopt its structure. UCLA's website for its Minors Program, which mirrors what the College has done, is another good model. (<http://www.admissions.ucla.edu/prospect/Majors/lsminor.htm>).
 - (b) CAPT also suggests that the new minors web page could illustrate some best practices for clustering of majors and minors. We recommend that USC divide the demonstration into two categories of 1) Renaissance Scholar (a more personal pursuit of a minor) and 2) practical application in selecting a minor and the perceived advantage gained by this practice in the job world. CAPT suggests that each program review the description of their minors to ensure that the learning objective and/or skill sets to be acquired are clearly articulated (and possibly contrast this information with majors in the program).
2. **Hold a university-wide minors fair.** The current practice is that the College has its own minors fair, and then a separate non-College minors fair is done at a later date. The comment was that the College fair is well attended, while the non-College fair is not.
3. **Include the Minors Program in "Welcome Week".**
4. **Institute Minors Program training for academic advisors.** One of CAPT's findings is that training for academic advisors does not include a session on USC's Minors Program. CAPT recommends USC provide Minors Program training for all academic advisors. This recommendation is extremely important as a survey of students from each CAPT member's home department revealed that students, in general, rely on advice from academic advisors when choosing a minor.

5. **Create a web-based student discussion board on minors.** Word of mouth is also an important venue for student decisions on minors. This type of venue would also provide formative assessment information for faculty and administrators overseeing minors in their program.
6. **Student assessment of USC's Minors Program.** Ultimately, success of USC's Minors Program should translate into satisfaction experienced by the student. CAPT recommends that USC assess the success of its Minors Program by asking questions about the Minors Program during exit interviews (via email), and then performing a long-term follow-up survey with USC graduates via USC email accounts. Students keep their USC email accounts for 5 years after graduation, and this provides the opportunity for a long-term longitudinal follow-up.

CHANGES IN CURRICULUM

1. **Changes in General Education:**

- (a) **Allow use of General Education (GE) courses to fulfill minor requirements.**

CAPT recommends that programs across the USC campus include GE courses as part of their course requirements for completing a minor. This practice will create a unit-incentive for students to consider minors at USC. CAPT has found through an analysis of university practices across the country that the double counting between programs is common, and believes that the adoption of this practice will not dilute the educational experience at USC. The Interdisciplinary Minor in Forensics and Criminality and The Minor in Photography and Social Change are two examples where this policy is practiced at USC, but many more are needed.

- (b) **Allow faculty from programs outside the College to teach GE courses.** CAPT believes this step might increase "breadth" into the GE course experience through the unique perspective brought by faculty from programs outside the College and provide exposure of GE students to a variety of minor programs across the campus. Dean's from participating schools would need to reach an agreement for faculty outside the college to participate in this program.

An underlying principle of the GE transition was that students would seek breadth by taking minors outside the College. Consequently, schools would be able to make up the difference in enrollment or in the recruitment of students into their programs via the minors program. CAPT felt that this was not occurring enough and we suggest the recommendations indicated above may help students to consider the breadth that is built into USC's minors program.

2. **Create a community service or community involvement minor.** Steve Lamy (Vice Dean for Academic Programs in the College) suggests adoption of a community service or community involvement minor, and CAPT concurs with his recommendation. Existing models for this type of program are present at other universities, and should be studied (HAAS Center at Stanford

<http://haas.stanford.edu/>; Hesburgh Program in Public Service, Notre Dame, <http://www.nd.edu/~hesprg/>).

3. **Include Engineering's Technical electives as a requirement for a minor.** CAPT recommends that the Viterbi School of Engineering consider allowing "technical electives" to be allowed to count for not only obtaining a major in engineering, but also towards successful completion of a minor. This change in policy would create an incentive for pursuing a minor by allowing the technical elective to count towards a minor in any of the 14 minors offered by Viterbi or some other related program. This kind of program may help raise the minor participation rate from the low 10% rate presently seen at Viterbi. The College already practices this kind of policy, where the "104 College units" required to graduate with a major from the College is reduced to 96 units if the student minors. It is a policy that appears to work based on the 40% participation rate seen in the College. A similar approach could be applied to the Marshall School of Business. Business Major's are required to complete unit-heavy concentrations in Business and CAPT recommends the Marshall School consider allowing some of the units go toward completion of a minor.

4. **Create more unit space in each program for students to minor.** CAPT's findings suggest that there may be potential financial barriers to completion of a minor at USC. CAPT recommends further study of the possible reduction of the number of units required to complete a major. This would allow room for students to pursue a minor without incurring extra costs for additional years of study. CAPT notes that the potential financial barriers may create inequity in the educational pursuit of a minor across different demographic groups, as suggested by Tables 5-7. CAPT also notes that students may be unwilling to incur the financial cost of pursuing a minor when as an alternative those students could obtain a progressive Master's Degree with the same number of units.