During the 1988-89 academic year the Curriculum Committee requested that consideration of proposals for new minors be held in abeyance until a study could be completed concerning the issues which had been raised about minors. The Academic Senate rejected the temporary moratorium and delegated to the Curriculum Committee the task of a study of minors with a report on that study due by the end of Winter Quarter 1990. The following is the report requested.

In the discussions of the Curriculum Committee and those of the Academic Senate as a whole, several issues were raised concerning minors. These were: the impact of minors on resources, the effect of minors in delaying the time to graduation, tracking students in a minor, criteria for a minor, and program review for minors.

1. Impact on Resources
Data were collected in April 1989 for students who had graduated or were intending to graduate between Fall 1988 and Summer 1989. We found that of the 3982 degrees granted or applied for during this time period, 235 had declared minors. See Table I at the end of this report. Considering the limited number of students, approximately 6%, who completed minors during this time, it is our opinion that it would be difficult to ascertain the impact of that 6% on resources especially when they are scattered among 16 programs. In addition there exists no baseline accumulated information concerning the numbers of students who have completed minors since the inception of minors. The information which we worked from was tabulated by hand. It is an example of the baseline information to which future data can be compared. It would also be difficult at this time to separate the influence of a minor from other pertinent factors which impact on resources such as natural growth within a new minor program, natural growth within a department or G.E. & B. choices.

However, this does not mean that data collection and consideration of the impact of minors should be neglected. Baseline information should be generated as soon as possible and the progress of minors should be accounted for during mandatory periodic reviews. A base year, such as 1990-91, might be a start. If the populations in established minors swell, a specific case study can then be directed by the Office of Academic Affairs as to the types of students populating a minor, the changes in course offerings required because of the minor, and the resulting strains on faculty and financial resources.

As evidence of the type of information which can be gathered from such data, our brief study gave us access to some interesting comparative items such as, for the time period studied, 47 of 140 Human Development graduates (33.6%) completed a minor. Of those 47 minors, 45 (95.7%) were in Psychology. The Human Development curriculum has 198 units required for graduation with 11-14 free elective units. The psychology minor requires 27 units with a possibility of 12 units of that 27 which fit G.E. & B.

In the 853 majors from the School of Engineering, 25 (2.9%) declared a minor, while in the School of Architecture and Environmental Design, 8 of 372 (2.2%) had minors.
2. Tracking Students Enrolled in Minors
The only official university record of a student's enrollment in a minor is the documentation on his/her transcript. Most programs have their own forms which a student may fill out when entering a minor or sometime before they graduate. We believe it would serve no purpose to initiate a uniform, prospective means of tracking students enrolled in minors. If a student completes the work and follows the specifications made by those administering the minor, certification on the graduation diploma serves the purpose of bookkeeping. In addition the completion of a minor should be computer recorded using a specific code and become part of the graduation statistics generated by Institutional Studies for the university's yearly report. As departments and schools prepare for their 5-year review cycles, they should consider these data. If the number of students in a particular minor shows a significant increase, then an educational impact statement should be required by the office of Academic Affairs in which course enrollments for the minor, as well as impacts on faculty and resource allocations to those courses, should be studied in order to correlate the information. We suggest a baseline academic year of 1990-91 for the beginning of acquiring such data.

In addition to accountability for enrollments at the time of program review, minors with low enrollments should be evaluated and justified just as are majors.

3. Impact on Time Required for Graduation
It is almost impossible at this time to determine the impact of minors on the time (units) required for graduation. We have been pursuing data on the total numbers of units accumulated by past graduates. They are not readily available. And even if such data were available any attempts at interpreting such information are immediately confounded with factors such as the total number of units in a major, problems in scheduling courses (especially G.E.&B.), COOP experiences, poor articulation with community colleges, changes in major, supervised study, study abroad, and individual preferences for workload. According to the data which we have studied for 1988-89, most minors seem to be taken by students enrolled in majors with enough units to absorb a minor.

A more important issue has arisen which we believe should be addressed by the university community. According to most recent data the anticipated rate of student continuation at Cal Poly is estimated to be almost 83% for the coming academic year. If minors are lengthening a student's stay at Cal Poly is priority to be given to the student who is already enrolled? Or is our commitment to the potential student who will not be able to enroll at Cal Poly because of a continuing student filling that slot? Currently there is no ceiling on the number of units a student can accumulate at Cal Poly. Should such a ceiling be established with an overhead which allows for some of the most obvious contributions to unit inflation such as articulation problems and change of major?

4. Criteria for Minors
C.A.M. describes a minor as "a formal aggregate of classes". This posed a particular problem to the Curriculum Committee's deliberations during the 1990-92 catalog cycle. In reviewing the proposed minors we found that those which presented a clear central theme and justified the choice of courses in relation to that theme were the strongest. In addition interdisciplinary programs were stronger if they included a course or courses which integrated the diverse elements of the program.

The Office of Academic Affairs has been requesting departments proposing new programs to correlated the anticipated student competencies to specific courses using a matrix scheme. We found that this seems to be an effective tool in the review of new curriculum proposals(see attached example).
TABLE I
Minors Applied for and Granted Fall 1988-Summer 1989

Total number of degrees 3982
Number of minors 235 (6% of total)

<table>
<thead>
<tr>
<th>Minor Program</th>
<th>Number of Students</th>
<th>% of Total Minors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>86</td>
<td>36.6</td>
</tr>
<tr>
<td>English</td>
<td>27</td>
<td>11.5</td>
</tr>
<tr>
<td>Agricultural Management</td>
<td>26</td>
<td>11.1</td>
</tr>
<tr>
<td>Music</td>
<td>19</td>
<td>8.1</td>
</tr>
<tr>
<td>Spanish</td>
<td>18</td>
<td>7.7</td>
</tr>
<tr>
<td>International Relations</td>
<td>11</td>
<td>4.7</td>
</tr>
<tr>
<td>Philosophy</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Speech</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Biotechnology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Plant Protection</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Political Science</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Public Administration</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Theater</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The first six minors accounted for 80% of the minors awarded.

AS- 335-90/CC
RESOLUTION ON MINORS

WHEREAS, the Academic Senate Curriculum Committee has completed a study of minors at Cal Poly as summarized in the Background Statement above; and

WHEREAS, the Academic Senate Curriculum Committee has indicated concerns which should be addressed; therefore, be it

RESOLVED, That the Office of Institutional Studies include information on the numbers of students receiving credit for minors, designated by individual minors, in the annual graduation report statistics and, within the capacity of our data collection software, it should link specific minors with the major of the student enrolled in that minor; and be it further

RESOLVED, That mandatory review of minor programs be included in the 5-year review cycle for departments and schools and that the base academic year 1990-91 be established for the generation of data pertinent to enrollments in minors; and be it further
RESOLVED, That the Academic Senate and University Administration address the issue of commitment to a continuing student population versus new student enrollment through the appropriate standing committees; and be it further

RESOLVED, That the language in C.A.M. be modified as follows:

411.A.3. Minor

No minor is required for the bachelor's degree.

A minor is a formal aggregate of classes in a specific subject area designed to give a student documented competency in a secondary course of study. In contrast to options and concentrations, it stands alone and is distinct from and outside the student's degree major. A minor is a group of courses outside the major with a defined purpose or theme which gives documented competency in a secondary course of study. No minor is required for the bachelor's degree; it is intended that the minor will be completed along with the requirements for the bachelor's degree. The student's transcript will certify completion of the minor.

The minor consists of 24 to 30 quarter units, of which at least half must be upper division. Twelve or more of the units in the minor must be specified courses with the remainder, if any, to be chosen from an approved list. Two-thirds of all units counted in the minor must be in courses graded A to F.

Minors require the same academic review process and justification in terms of purpose, resources, need, etc., as do options and concentrations.

and be it further

RESOLVED, That the directions for developing minors which are provided by the Office of Academic Affairs include the requirement that interdisciplinary minors have some coursework which integrates the courses contributed by the departments and relates them to the theme of the minor; and be it further

RESOLVED, That a proposal for a minor program be required to include a brief matrix of competencies provided by the minor correlated with the courses in the minor which will fulfill those competencies.

Approved by Curriculum Committee (8-0-0) 1 nonrespondent; no current student representative
February 23, 1990
State of California

Memorandum

To:    James Murphy, Chair
       Academic Senate

From:  President

Subject: ACADEMIC SENATE RESOLUTIONS

Based upon my consultation with the Academic Affairs staff, I am pleased to approve the following Academic Senate Resolutions: AS-334-90/IC (Resolution on Audit Policy), AS-335-90/CC (Resolution on Minors), and AS-336-90/SENG Resolution on Change of Department Name for the Metallurgical and Materials Engineering Department.

By separate correspondence I will notify the School of Engineering of my approval of the department name change.