I. Purpose
The purpose of this document is to explain the college’s policies and position on proposals that require cost-sharing. Also, we make some general recommendations about preparation of budgets and the budget justification. Because this document cannot anticipate all situations, we encourage faculty to contact the dean’s office well in advance of the proposal due date so that we can help you develop the appropriate budget strategy, and line up support from the college.

II. General suggestions on budgets and justification
In this era of tight budgets, it is vital to use every section of your proposal to convey your ideas, clearly and persuasively. This includes the budget, which should be strategic for your project, and not generic. When writing your proposed activities, briefly indicate who will perform key aspects of the research (post-doctoral scientist, graduate students, undergraduate researchers, participants). Also, briefly highlight key items of equipment, materials, procedures, travel, or services that will be highlighted in your budget. When you write the budget justification, briefly refer back to the proposal (e.g. “The post-doctoral student will devote four months effort to performing the theoretical calculations described in Section 3.2.” “We request funds for a surface profilometer to make the essential measurements described in Section 3.3.” “We request funds for travel to our collaborator’s laboratory in New Mexico.”) By strategically linking proposal text with your budget and justification, you can better persuade reviewers that you have carefully planned every aspect of your proposed work. The budget justification becomes one last opportunity to outline your ideas and proposed work.

III. Cost-sharing
General
It is the policy of the university and the college NOT to provide cost-sharing funds if the program does not request such. Likewise, it is university policy to provide only the required match, and not to over-match. Exceptions must be extremely well justified, and discussed in advance.

Any proposal that requests cost-sharing from CEC requires the dean’s approval, the Associate Dean for Research is responsible for helping plan and obtain the dean’s approval.
If you wish to request cost-sharing from the VPR or the Provost’s office, please work with the college first so that the Dean’s Office can prepare and approve the request.

Cost-sharing or matching means that the grant recipient is expected to bear some of the costs of the total project. Cost-sharing can include in-kind contributions or cash. If “cost share” or “match” is specified in the project proposal and budget, then the grant can and will be subjected to a federal audit. Thus, cost-sharing creates additional administrative and compliance burdens (which is not a reason to avoid cost-sharing; it is just a fact.) Be careful to distinguish between formal cost sharing, and other mechanisms of supporting a grant, such as available resources and equipment. These latter are not cost-sharing mechanisms, they just demonstrate the capability of the investigator to do the work in the USC environment.

If applying for a federal grant, one may not use other federal funds for cost-sharing. Thus, do not state or imply (for example) that your current NSF grant will be used to match your proposed DARPA grant.

Read the call for proposals carefully, and involve the Associate Dean for Research and your sponsored programs contact early in the budget process. There are sometimes gray areas in calls from federal agencies, and especially from private foundations. Wording sometimes seems to “encourage” cost-sharing, or somehow showing an institutional commitment to a project. Calls such as these must be examined carefully, and strategies will be developed on a case-by-case basis.

**Planning a budget with cost sharing**

Suppose the federal agency limits its funding to $300,000, and requires a 20% cost-share. That is a total budget of $360,000. It is tempting to write a $300,000 proposal, and to consider the $60,000 as “extra” money to be provided by the university (e.g. “I can have one more graduate student!”). Savvy reviewers and program managers will detect this. Cost-share funds are used to accomplish the project, and their use must be justified in the same level of detail as the federal funds. Cost-share funds are not just discretionary money for the PI.

In keeping with Section II above, for this example you would prepare a full $360,000 project budget that meets the agency’s need. Budget for actual, justifiable needs, and then consider how the match could be met. Admittedly this is an inexact process, and the availability of cost sharing funds will affect the actual final budget. Nevertheless, if one plans the actual project budget in light of the actual proposed work, the cost sharing requests will be much more persuasive to the college and university, and the proposed expenditure of the match will be more credible to the reviewers.

Naturally, the process described above takes time for planning and negotiations; again, it is vital to start the cost sharing discussions as early as possible.

**Cost sharing mechanisms**

Funds for cost sharing come from the following sources:

- University cash (e.g. the Vice President for Research; the Provost)
- College cash available from Indirect Returns
• College in-kind sources (faculty academic year time; salaries of scientific staff; donated time and discounting of costs from special facilities or cost centers)
• Third-party contributions (an industry partner; an endowed fund)
• Funds from the State EPSCoR/IDEA Office

We have no further comments about third-party contributions, except to encourage you to identify any such funds that might be available from your external collaborators. The college and university administration might also have some suggestions for specific cases.

In-kind funds for cost-sharing
Here are some opportunities to leverage university and college in-kind resources to meet your cost sharing needs. In all cases, it is vital to read the program description to insure that you are proposing allowable costs and effort.

1. Cost-share your academic year time, and that of any USC co-PIs. Include fringe benefits and indirect costs as part of the cost share. However, do not exceed the maximum allowable number of months that any faculty member has to cost-share. Your department chair, as well as college and university staff, can help you determine your maximum. While this is not new cash to the project, this in-kind match is a real expenditure, and funding agencies do want to see how much time the investigators will spend on the project over the course of a full year. Your project description and budget justification should explain how you allocate your time (again, see Section II).

2. Cost-share the time of any scientific staff who will be working on the project, and whose effort is clearly described in the project and the budget justification. Such personnel must be staff for whom the college or university is already providing salary. Do not cost-share the time of staff who are paid on other federal grants. Such CEC staff might be: Machine Shop staff, scientific computing staff, Dr. Ye Lin who runs the XPS facility.

3. If you are using a Cost Center facility, AND are specifying grant funds to be charged to the Cost Center for services, AND that Center has published rates for outside (industrial) users that are different from USC users, you can use the DIFFERENCE in the rate as cost-share.

4. In very special cases, it may be possible to cost-share the time of administrative staff. Ordinarily, administrative staff are considered part of our indirect cost structure and their time cannot be cost-shared. If there is a large special project, requiring more than 5% of the staff time, and the department and college administration approve, then cost sharing of staff time can be considered. This particular form of cost-sharing draws extra scrutiny, both internally and by the federal government.

Cash for cost sharing
Excepting for third-party contributions, the College gets cash from its portion of the IDC return from grants. At present, the college portion of the grant IDC is 37.5%. CEC cannot (except in unusual circumstances) promise cash matching that exceeds its share of IDC return. Thus, prepare your federal request, and compute the total amount of IDC that will come in if the grant is funded. Any cash request cannot exceed 37.5% of the IDC that the college can expect to get if the grant is funded.
The VPR also gets 37.5% of the IDC return, and might be willing to match all or a portion of the CEC cash cost share. It helps the VPR if the college first commits to cost share, so this is a good way to proceed. Note also that the VPR has been known to provide staff support and cash for REU programs and other high-visibility grants. The VPR is a proponent of large centers and interdisciplinary efforts, so these are more likely to win matching funds from that office. This process is likely to be iterative, so start well in advance.

**Cash from the State EPSCoR/IDEA Office**

As an EPSCoR state, South Carolina has some special opportunities. DOE-EPSCoR and NASA-EPSCoR RFPs, for example, often require cost share. The EPSCoR office has historically received an annual appropriation from the legislature to support EPSCoR-funded research. Thus, one can ask for cash from the state EPSCoR office. Asking is not receiving, however, and thus preparing an EPSCoR proposal with cost-share usually requires preparing at least two project budgets. We elaborate on this below.

1. **Prepare a full project budget, with all cash cost share from the EPSCoR/IDEA Office**
   The best scenario (from the college budget standpoint, anyway) is that all cash match comes from EPSCoR funds. Therefore, prepare a budget requesting that the EPSCoR office provide funds in these categories: graduate student tuition, equipment, graduate student stipend, faculty summer salary, materials and supplies, and travel.

   Do NOT put the following items in the EPSCoR matching request: faculty academic year time (buyout), and indirect costs. The EPSCoR funds do not pay for these. For example, if you prepare a cost share request totaling $50,000, with $25,000 in graduate student support, $10,000 in AY buyout and $15,000 in IDC, the EPSCoR Office will at best give you $25,000. You have lost a chance at $25,000 in cash from EPSCoR. The remaining match would have to be made up from other sources. A better budget would specify $10,000 in summer salary and $15,000 in supplies in addition to the graduate student; in this case, you might get the entire $50,000.

   If submitting an EPSCoR proposal, this would be the budget that you would submit for initial federal consideration. Of course, you should always discuss EPSCoR proposals with the appropriate staff person in that office.

2. **Prepare a contingency project budget, with no cash cost share from the EPSCoR/IDEA Office**
   Funding from the EPSCoR office depends on the level of the state appropriation and the amount of cost-sharing that the EPSCoR office has to provide to other projects. The amount of match from EPSCoR can vary each year; don’t count on the same level of cash each year. The worst case scenario is that the EPSCoR office can provide zero cost share. In that case, the university and college must still meet all of the cost-share commitment. Therefore, one must prepare a contingency project budget where the cost-share is met with the other sources described above.

   To be on the safe side for EPSCoR projects, the College requests that you develop both the best-case budget, and your contingency project budget. Bring this to your department chair, and then to the Associate Dean for Research for discussions and planning. It is important that you and the College do a reality check in the event that the project is approved, but no EPSCoR Office cash is available.
IV. EPSCoR Examples

The two following budget examples illustrate the two EPSCoR scenarios above. Suppose the federal agency provides a maximum of $250,000 per year, and requires a 50% cost share ($125,000 from the institution). In Example 1, the PI and co-PI request summer salary, shared between the feds and the EPSCoR office. There are two graduate students shown, one each supported by the feds and by EPSCoR. Materials and supplies are split, as is the cost of subcontracts. Note that IDC is computed on the federal request, but not on the cost-share side, because EPSCoR does not provide cash to IDC. This would be the best possible result-$125,000 in spendable funds for the PI to match the federal grant.

The second budget example is the worst-case scenario, assuming the EPSCoR office has zero dollars for cost-share. Note that the PIs request a small amount of summer salary, but show considerable AY time (salary + fringe) as cost-share. They are forced to eliminate one graduate student, and severely cut the supply budget. A portion of the subcontract is shown as cost-share, but this means that the subcontractor also re-did their budgets to show considerable cost-sharing as well. Finally, note that the cost-share budget now calculates the IDC that would normally accrue to the direct costs. (Note that this Example 2 budget is not the only way to plan for the worst case, it is just an example.)

A couple of other comments about these examples. The final decision on EPSCoR cost sharing would not be made until the time of the grant award. If so, the “actual” final budget might have to be done yet again. Note that the federal budget generates $62,232 in cost share, and 37.5% of that would come to CEC. So, some portion of those funds might be available to provide a small cash cost-share if needed in the final negotiations. Other USC sources could also be called upon for additional match.