

April 8, 2016

CP/EVC Alison Galloway  
Chancellor's Office

**Re: CPB Recommendations on Faculty Recruitment Requests 2016-17**

Dear Alison,

The Committee on Planning and Budget (CPB) has reviewed the divisional Faculty Recruitment requests for 2016-2017, and has met with each Dean individually (including Dean Designee Wolf for BSOE). The call letter to the Deans indicated your intention to restore funding for 18 FTE. Of these, between five and seven have been pre-allocated to BSOE, between five and seven to Physical and Biological Sciences, between two and three to Social Sciences, and one each to Humanities and Arts. We note that, based on the Office of Planning & Budget's request summary worksheet, there are currently 44 pending requests, 20 of which would require central funding. This letter includes advice on all 44 requests.

Our thinking about the FTE requests was guided by principles that you outlined in your letter to the Deans, and those developed by CPB previously. The main drivers of our decisions were as follows:

- New faculty hires should enhance the research profile of the campus by supporting doctoral growth in existing programs or new programs with high growth potential;
- New faculty hires should maintain or increase the excellence of existing undergraduate programs, or improve the educational experience for a substantial number of undergraduate students.

The Chairs of Graduate Council and the Committee on Educational Policy participated in the divisional consultations and later met with CPB to provide their perspectives on the pros and cons of the different plans and to provide their feedback on specific questions posed by CPB. We are thankful for their participation and have incorporated their feedback (which mirrored closely our own) into our letter.

**Summary of Recommendations**

The original divisional requests along with our recommendations are listed below by division, in order of decreasing priority. The rationale will be elaborated in subsequent sections of this letter. Asterisks (\*) indicates slots supported by new central funding; all other positions are assumed to be funded by the respective division. **Bold** text corresponds to positions that we recommend be moved forward from 17-18 or 18-19 to the current 16-17 recruitment cycle. *Italics* denote positions in which we recommend a change of emphasis within a given department. ~~Stricken~~ positions correspond to requests that we recommend against.

	Proposed by Dean	Recommended
<b>Arts</b> 7 Requested	Games and Playable Media (DIV) Narrative Production (FDM) (2014-15)	Games and Playable Media (DIV) Narrative Production (FDM) (2014-15)

<p>6 Recommended (1 Central)</p>	<p>Drawing (ART) Early Modern to Modern Europe (HAVC) Cultural Musicologist (MUS) Directing/Acting (THEA) * <del>Painting (ART) *</del></p>	<p>Drawing (ART) Early Modern to Modern Europe (HAVC) Cultural Musicologist (MUS) Directing/Acting (THEA) *</p>
<p><b>BSOE</b> 7 Requested 8 Recommended (8 Central)</p>	<p>Computer Graphics (CM) * Hardware systems (CE) * Robotics/mechatronics (CE) * <del>Undergraduate LSOE (CS) *</del> Control Systems (AMS) * <del>Smart Power (EE) *</del> Big Data and Systems (CS) *</p>	<p>Computer Graphics (CM) * Hardware systems (CE) * Robotics/mechatronics (CE) * Big Data and Systems (CS) * <b>Data Science (CS) *</b> Bayesian Statistics (AMS) * <b>Computer Science Application Areas (CS) *</b> <b>Cyber-Physical Systems (CE) *</b></p>
<p><b>Humanities</b> 2 Requested 2 Recommended (0 Central)</p>	<p>Phonology (Linguistics) Theory/Experimental and Comput. Methodologies (Linguistics)</p>	<p>Phonology (Linguistics) Theory/Experimental and Comput. Methodologies (Linguistics)</p>
<p><b>PBSci</b> 14.5 Requested 11.5 Recommended (5.5 Central)</p>	<p>Director, MS Coastal Sustainab. (EEB, ½ FTE) * Neuroscience (MCDB) * Astrophysics (ASTRO) Experimental Materials Chemistry (CHEM) * <del>Water/Surface Processes (EPS) *</del> Cosmology (PHYS) Instrumental or Observational Astron. (ASTRO) * Dynamical Systems/Geometry (MATH) * Metabolomics/Metagenomics (METX) * Molecular Pharmacology (CHEM) Biomedical Chemistry/Synthetic Bio. (CHEM) Molecular Biology or Neuroscience (MCDB) <del>Marine Mammal Biologist (EEB) *</del> <del>Biogeochemistry (EPS) *</del> Geophysics/Tectonics (EPS)</p>	<p>Coastal Sustainability (EEB, ½ FTE) * Neuroscience (MCDB) * Astrophysics (ASTRO) Experimental Materials Chemistry (CHEM) * Cosmology (PHYS) Instrumental or Observational Astron. (ASTRO) * Environmental Toxicology (METX) * Dynamical Systems/Geometry (MATH) * Molecular Pharmacology (CHEM) Biomedical Chemistry/Synthetic Bio. (CHEM) Molecular Biology or Neuroscience (MCDB) Geophysics/Tectonics (EPS)</p>
<p><b>Social Sciences</b> 13.5 Requested 13.5 Recommended (2.5 Central)</p>	<p><del>Director, MS in Statistical Science (Various) *</del> <del>Statistical Data Analysis (Various)</del> <del>Statistical Data Analysis (Various)</del> <del>Statistical Data Analysis (Various)</del> <del>Director, MA in Social Sci. and Policy (Various) *</del> <del>Social Sciences &amp; Policy (Various)</del> <del>Social Sciences &amp; Policy (Various)</del> <del>Social Sciences &amp; Policy (Various)</del> <del>Social Sciences &amp; Policy (Various)</del> South-South/Intra-regional Migration (LALS) Director, MS Coastal Sustainab. (?, ½ FTE) * Children and Technology HCI cluster (PSYC) International Trade &amp; Microeconomics (ECON) Macroeconomics (ECON)</p>	<p>Director, MS Coastal Sustainab. (?, ½ FTE) * Children and Technology HCI cluster (PSYC) International Trade &amp; Microeconomics (ECON) * Macroeconomics (ECON) * South-South/Intra-regional Migration (LALS) <b>Applied/Experimental Economics (ECON)</b> <b>Social Psychology HCI cluster (PSYC)</b> <b>Cultural Anthropol. Postcolonial (ANTHRO)</b> <b>Race, Law, Justice, Migration (SOCI)</b> <b>Indigeneity (LALS)</b> <b>Coastal Governance (ENVI)</b> <b>Islamic Political and Legal Theory (POL)</b> <b>Applied Microeconomics (ECON)</b> <b>Social Psychology (PSYC)</b></p>

### **General Considerations**

The divisional hiring plans often appear to see the two primary drivers of the call as irreconcilable. We strongly disagree as we see a number of opportunities for individual faculty hires to simultaneously improve the quality of undergraduate education for a large number of students and enhance the research profile of the campus by supporting doctoral growth. Our recommendations prioritize this type of “high-impact” hire, and in some cases we propose that recruitments planned for later years be pushed forward, displacing the original decanal priorities. Another consequence of this prioritization is that our recommendation skews the final allocation of FTEs towards departments in BSOE that have large numbers of graduate students per faculty and have experienced (and, at least as important, are expected to continue experiencing) a surge in undergraduate growth.

To elaborate, total instructional loads vary widely across Divisions: BSOE is 16.5% above the campus norm, PBSci is 5.4% above, Social Sciences is 2.3% above, Arts is 8.6% below, and Humanities is 26.2% below<sup>1</sup>. The higher instructional workload together, with the higher average ratios of doctoral students per ladder faculty in BSOE, suggest that prioritizing BSOE somewhat above PBSci might be the best way to accomplish the goals of the FTE call. Beyond the divisional differences, we must also acknowledge significant differences within each Division. Indeed, we note that divisional numbers hide a large variability across departments in the same division: undergraduate workload in BSOE ranges from -36% (EE) to +52% (CE) of the campus average; in PBSci it ranges from -43% (METX) to +69% (MATH); in Soc Sci it ranges from -33% (ANTHRO) to +34% (ECON); in Arts it ranges from -20% (FILM) to +21% (HAVC); and in Humanities it ranges from -40% (LING) to +3% (PHIL). Similar differences can be observed in terms of the number of graduate students per faculty.

In addition to the differences in *current* instructional workload, CPB’s evaluation of the impact of proposed hires on the quality of undergraduate education was informed by short- and medium-term enrollment trends. Demand for different STEM fields has been growing at very different rates over the last ten years. For example, interest among frosh in BSOE majors has grown substantially in recent years, and in particular doubled over the past three years. In Fall 2015, BSOE (with 14% of UCSC faculty) offered the preferred majors of 27% of incoming frosh and admitted 35% of incoming graduate students.<sup>2</sup> As a consequence of this shift in student interests, over the past four years BSOE has absorbed all the student growth at UCSC, adding 850 student FTE while the rest of the campus actually shrank by 77 students.<sup>3</sup> This additional instructional workload has fallen almost exclusively on Computer Science, Computer Engineering, Computational Media and the statistics group within Applied Mathematics and Statistics, with enrollments in Electrical Engineering and Biomolecular Engineering remaining relatively flat. At the graduate level we also attempted to consider the size and quality of the applicant pool, but unfortunately the information available to us during our review was mostly anecdotal.

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<sup>1</sup> Total Student FTE/Total Budgeted Faculty FTE taken from the 2014-2015 [Supplemental Workload/FTE Summary Reports](#), pages 10 and 11.

<sup>2</sup> Data from [New Fall Frosh by Proposed Major](#), page 2. Grew from 462 in fall 2012 to 1007 in fall 2015. Furthermore, BSOE is 1007 new frosh (page 2), campus is 3744 (page 7), ratio is 26.89%. On the other hand, from Data from [Supplemental Workload/FTE Summary Reports](#), BSOE is 74.5 faculty (page 1) and campus is 527.6 (page 4), ratio is 14.12%.

<sup>3</sup> From [Supplemental Workload/FTE Summary Reports](#), page 14, BSOE grew from 1665 to 2869, a growth of 851 (page 15), campus grew from 16654 to 17428, a growth of 774 so rest of campus shrank by 77 students.

As we reviewed the divisional requests, we also focused on addressing campus-wide needs and achieving better coordination among divisional initiatives. In our deliberations we identified a number of broad areas that we believe deserve special attention, either because they are areas where existing curricular responsibilities are (or should be) shared across divisions, or areas of potential future expansion where close collaboration across divisions would allow us to make the most of necessarily limited campus resources. These areas include mathematical sciences, statistical sciences, biological sciences, material science, computational media (including human-computer interaction, or HCI), environment and sustainability, psychology and neurology, language and linguistics, Latin American and Latino studies, race and ethnicity, and writing. Of these areas, four are of particular concern for the purposes of this FTE call. We address each of these in turn.

1. Coastal sustainability efforts on our campus involve faculty and expertise that span both the Social Sciences and the Physical and Biological Sciences Division. We are excited to see that this close interdivisional collaboration is moving forward in a coordinated manner. Hence, although the committee questioned the need to hire a dedicated Director for a new and relatively small MS program (especially given substantial campus expertise in the subject), this excitement, and the recognition that a joint hire can help the program coalesce and run smoothly, led us to support the proposed plan for a split hire between the Ecology and Evolutionary Biology Department and the Division of Social Sciences. Note, however, that we believe that further hires associated with the Coastal Sustainability Initiative should be delayed until the proposals for the Masters program in Coastal Sustainability and the undergraduate program in Environmental Sciences (both a long time in the making and foundational to the Initiative) are formally submitted for review by Graduate Council and CEP, respectively.
2. Coordination of the gaming curriculum has been another success story, with the ongoing recruitment and the new hire proposed this year in the Arts Division complementing rather than duplicating the expertise of the faculty being recruited in BSOE's Computational Media department. Hence, we are fully supportive of the efforts of both divisions in this area. We note, however, our concerns about the fact that the Gaming hires in the Arts Division are likely to become divisional appointments. We recommend that the situation be monitored closely, with the option kept open of moving these faculty into Engineering if the Arts Division finds it difficult to integrate them fully into its programs and scholarly/creative community.
3. When looked at cross-divisionally, the plans in front of us call for hiring two faculty in mathematics (a pure mathematician in PBSci and an applied mathematician in BSOE). These two requested positions, if conjoined with the two searches in pure mathematics that were approved last year (one of which is ongoing and one of which is being held for 2016-17) and the applied mathematics hire completed during the previous academic year, add up to a net of five new mathematicians over a relatively short period of time. By contrast, the plans call for no new faculty in statistical science during the next three years, even though no hires in this field took place last year (2014-15) and none are currently underway. This raised some concerns in the committee because, while there is significant overlap in the curricula that can be offered by Mathematics and Applied Mathematics faculty, the curricular overlap between these two groups and Statistics is limited. Furthermore, these plans come to us in a context where the introduction of ALEKS as the mathematics assessment tool for the campus has substantially reduced demand for introductory mathematics courses, where larger incoming classes will put additional pressure on courses satisfying the campus-wide statistical reasoning (SR) GE requirement and other required courses taught by the Applied Mathematics and

Statistics department, and where the rise of Data Science has generated new opportunities for doctoral growth in Statistics and related disciplines. For this year, we recommend hiring a specialist in Dynamical Systems in the Mathematics Department (as proposed by Dean Koch) and a Bayesian statistician in the Applied Mathematics and Statistics department (instead of the originally proposed hire in Applied Mathematics, Control Systems) in order to address the different campus-wide needs in this broad set of areas. Looking forward, we believe that we need better coordination in the hiring of faculty in mathematical sciences while acknowledging the distinct campus needs in statistical sciences.

4. The Social Sciences request includes a position in support of a Human-Computer Interaction cluster, and we recommend a second hire in the same cluster (which has been moved forward from the 2017-2018 plan). This same cluster also is supposed to include a future position in BSOE, but it is unclear how, and even whether, that position has been integrated into Engineering's long-term hiring plans. Furthermore, we are unclear about how the Social Sciences HCI cluster would fit in with plans from the Computational Media department to start a professional program in the area. Although we are supporting this cluster at this time because of the potential of these hires to address both the quality of undergraduate education (Psychology has lost a large number of faculty and has one of the largest majors on campus) and opportunities for graduate growth (HCI is an area that can potentially attract substantial extramural funding), we would prefer to see the lack of coordination between divisions addressed before further hires in this or related areas are proposed by either division. A better coordination of HCI-related hires could help both divisions deal with undergraduate needs while opening up a fertile field for graduate growth.

### **Divisional Hires**

#### Arts

CPB supports 6 hires in the Arts, including 1 new central FTE. CPB recommends that the first six requests from the Arts be approved, including a centrally funded new FTE in Directing/Acting in the Theater Arts department. Unfortunately, we are unable to support a second centrally funded FTE in Painting to be housed in the Arts Department, but would be supportive of proceeding with the recruitment if the division is willing to provide the FTE.

#### Baskin School of Engineering

CPB supports 8 hires in the Baskin School of Engineering (BSOE), including 8 new central FTE. The request from BSOE presented the committee with a number of challenges. On the one hand, Dean Konopelski has argued very convincingly that BSOE's situation is not comparable to that of other divisions because of its young age and the fact that since its inception a series of budget crises have forestalled its growth to an appropriate size. At the same time, enrollment trends are placing increasing pressure on some departments of the division. Finally, we note that BSOE is in a unique position to support campus-wide graduate growth initiatives, with faculty usually having large graduate labs and relatively ample opportunities for securing extramural funding to support those students. All this speaks for a need to allocate FTEs to BSOE in excess of other Academic Divisions. On the other hand, the committee is convinced that the allocation needs to be done strategically to achieve campus-wide goals, something the proposed request does not completely achieve. Hence our recommendation includes a number of changes with respect to the plan presented by Interim Dean Konopelski, all aimed at hiring in areas that simultaneously maximize undergraduate impact and potential for graduate growth.

CPB supports the top BSOE priority, a hire in Real-Time Graphics that is to reside in the Computational Media Department. This recruitment is necessary for the launch of the new Computational Media MS and Ph.D. Program and would strengthen a small but extremely active department with large (and growing) undergraduate and graduate enrollments per faculty, addressing both primary drivers of the FTE call.

The committee also supports the second and third priority hires proposed by BSOE, which correspond to two recruitments in the Computer Engineering department (one in hardware systems and one in robotics/mechatronics). What is more, because of this department's burgeoning undergraduate enrollments and potential for graduate growth, we further recommend that an additional recruitment be authorized, moving forward the proposed hire in Cyber-Physical Systems which is the top divisional priority for 2017-2018. Computer Engineering, along with Computer Science (which we discuss in more detail later) are excellent examples of departments in which additional ladder faculty can help improve the quality of undergraduate education for a substantial number of undergraduates while at the same time contributing to graduate growth on campus.

CPB does not recommend the hire of an LSOE in Computer Science. Put bluntly, active research faculty in CS are already at capacity and unlikely to add doctoral students in their lab even if their undergraduate teaching load is slightly reduced, while research inactive faculty are unlikely to suddenly renew their research portfolios. Hence, the only way to achieve growth of Ph.D. enrollments in Computer Science is to add research-active faculty that can supervise graduate students. This is a key consideration in our data because CS is particularly well positioned to contribute to campus graduate growth goal; in 2016 alone, the CS department's graduate program received 783 applications for the M.S. program and 165 applications for the Ph.D. program. Furthermore, we believe that the additional capacity provided by an LSOE (5 courses instead of the 3 associated with research faculty) and any potential contribution to stabilizing the undergraduate curriculum could be achieved more efficiently if the department were to implement the recommendations of both the Joint Senate/Administrative Task Force on Graduate Growth (June 2015) and VPAA Lee concerning workload policies. Finally, we note that the hire of an LSOE was a low priority in the CS department's long list of requests, and the reasons why it ranked higher in the divisional list were not clear to us even after consultation with the dean.

Instead of an LSOE, CPB recommends that CS be authorized to hire not only for the Big Data & Systems position (priority number 7 for 2016-2017 in the plan submitted by the Division), but also for two additional research faculty originally included in the 2017-2018 divisional recruitment plan: one in Data Science (priority number 2 for 2017-2018), and one in Applications Areas such as Natural Language Processing, Social Networks/Media or Computer Vision (priority number 6 for 2017-2018). These three hires, particularly if coupled with a change in departmental workload policies, would help alleviate capacity issues in the CS undergraduate curriculum and should, in the medium term, substantially boost the size of their graduate program.

As discussed in the General Considerations section, we evaluated the request for a hire in Applied Mathematics within AMS in a campus-wide context. From that broader perspective, it does not appear in the best interest of the campus to carry out two recruitments in mathematical sciences in 2016-17 (one in Mathematics and one in Applied Mathematics) while initiating no recruitments in statistics. Hence we are recommending that the sub-discipline of the AMS recruitment be changed from Control Systems to Bayesian Statistics. Since the three-year plan for BSOE submitted by Interim Dean Konopelski does not include any projected future hire in Statistics, we returned to last

year's FTE requests, which included a position in this field that was not funded because of its lower priority and the limited number of positions allocated. We note that the chairs of both GC and CEP expressed their support for the statistics area of AMS as critical for hiring, with the CEP Chair noting that a hire in this area would have a positive impact not just on BSOE but on undergraduates across campus.

The switch in focus for the AMS hire tries to prioritize the most urgent of two needs and is consistent with the goal of your FTE call letter to prioritize hires that will make substantial contributions both to the quality of the undergraduate experience and to graduate growth. The statistics group in AMS (formed by eight ladder faculty, including VPAA Lee) single-handedly carries most of the weight of instruction for the Statistical Reasoning campus-wide GE requirement, and many of its undergraduate courses (both lower and upper division) are required by a number of high-demand majors across campus. This load is expected to increase as the campus admits larger freshman cohorts. Similarly, the best opportunities for doctoral growth in AMS lie with the statistics group. Furthermore, although we recognize that the Applied Mathematics group in AMS is small (and potentially critically so), we also note that from a curricular perspective this group has much more in common with the faculty in the Mathematics Department than with their Statistics colleagues. Hence investments to stabilize applied mathematics (the main argument provided by Interim Dean Konopelski for the prioritization) need to be evaluated against the need to hire pure mathematicians in PBSci, and not against the need to hire statistics faculty in the AMS department.

Finally, we would like to note that CPB was in principle supportive of BSOE's request for a position in smart power for Electrical Engineering (EE), but recommends that this position be postponed until next year so that a dual search can be carried out that incorporates the proposed similar hire in the 17/18 plan. Although EE has a large number of graduate students per faculty, its undergraduate instruction load per faculty is quite low (56% below campus average). Furthermore, given that this position is part of a cluster in which two faculty were hired just this year, it is unclear that the curricular needs this hire aims to address are as pressing as those for other positions we have recommended above.

### Humanities

CPB recommends that both requests included in the Humanities FTE letter (two hires in Linguistics) be approved. Both of these FTEs are held in the Division. Although not included explicitly in the FTE letter, we understand that the Division is requesting an additional new, centrally funded FTE for a junior hire in History of Consciousness, and that it will be returning a different, divisionally held FTE to cover part of the budget cuts assigned to the Division. CPB also supports the request for this centrally allocated FTE.

### Physical & Biological Sciences

CPB supports 11.5 hires in PBSci, including 5.5 new central FTE. Of these, CPB has already supported forward funding one of them (the Mathematics position in Dynamical Systems/Geometry) through a second hire out of this year's recruitment.

CPB's most significant departure from the Dean's recommendations is in the area of the Coastal Sustainability Initiative. As mentioned above in the General Considerations section, CPB strongly supports the 0.5 FTE Director's position in EEB, noting that this position would anchor a long-standing and relatively well-planned thrust towards an interdisciplinary Masters degree in Coastal Sustainability. However, CPB does not support the attendant junior hires for the coming 2016-2017 cycle for several reasons. To begin with, there is a clear statement in the 2013-2014

recruitment authorization, fully supported by both the prior and current CPB membership, that these positions should not be authorized until the proposal for an interdisciplinary undergraduate major in *Environmental Sciences* has taken shape; no such proposal has been made available for review. In addition, CPB believes that holding these positions back until a director has been recruited will allow the director maximum flexibility to work with departments to hire faculty who will best support the Master's proposal to be completed and fully reviewed under her or his guidance. In addition, the enticing prospect of helping to shape a number of near-term hires may make the director position quite attractive to an experienced faculty member who would enjoy the challenge of cross-disciplinary program-building. As a result, CPB recommends against the EPS positions in Water Surface Processes and Biogeochemistry for this cycle; should the Director search go well, these positions (or ones like them) will presumably re-emerge as a high priority for the 2017-2018 cycle. CPB found the Dean's arguments for the Tectonics position in EPS to be compelling, and supports the authorization of that position from one of the FTE already held within the division.

CPB also recommends against authorizing the EEB position in Marine Mammal Biology at this time. This position is also attached to the Coastal Sustainability initiative, which suggests the wisdom of holding it back until the Director is in place. In addition, this recruitment has been presented as a growth position rather than a position geared towards the preservation of the high-profile area of expertise led by Professor Terrie Williams, whose retirement we learn is not immediately imminent. Of the growth positions requested by the Dean, CPB therefore finds this the least compelling and, viewed in a broader context, less compelling than growth positions recommended in other divisions.

CPB supports the authorization of the two Astrophysics positions, with the senior position (Observation/Instrumentation) being awarded as a new position from the central pool. Although these positions are not likely to bring in a disproportionately large number of graduate students, and the Astronomy department does not have its own undergraduate major, CPB understands this as being one of the traditional flagship departments in terms of research profile and impact, and does not want to see it travel the same path as History of Consciousness. CPB sees these two positions as a proportionate response to recent and anticipated separations from the Astronomy faculty. CPB is hopeful that Astronomy faculty will begin to assume a larger role in both undergraduate and graduate education as more regular-campus faculty are hired into the department.

CPB strongly supports the hire in Experimental Materials Chemistry in the Department of Chemistry and Biochemistry. Material Science is one of the three priority areas in the PBSci Division, and an area that has a high propensity to increase the research impact of the department and the campus. The committee also supports using divisionally-held FTE to make the two additional hires proposed for this department, in Molecular Pharmacology and in Biomedical Chemistry/Synthetic Biology. The Chemistry and Biochemistry department has extremely large service curriculum, which is reflected in the fact that it has one of the highest undergraduate/faculty ratios in the PBSci division. The department, and material science in particular, also has a high potential for graduate growth (the current Ph.D./faculty ratio in Chemistry of 4.0 is projected to go to 5.0 by 2020).

MCDB is an area that has been targeted for growth, and CPB is sympathetic to the Dean's notion that this might be most efficiently achieved by seeking to make three hires out of two searches. Thus CPB supports the authorization of two more positions in MCDB (a third position was authorized in the last cycle, but no search conducted), with one being awarded from the central pool of new positions. The Dean states that he will authorize searches in



Molecular Biology and Neuroscience with the goal of netting two positions in one of these areas, and one in the other. Given the health of the current neuroscience effort on campus (including synergistic existing activity in Physics, which is not mentioned in the Dean's narrative, and planned recruitments in Electrical Engineering), CPB recommends that Molecular Biology be given somewhat higher priority for the second position.

CPB was well-disposed towards a recruitment in METX, noting its intrinsic interdisciplinarity, good external funding, healthy size of its graduate program, and potential for increasing the number of Ph.D. students on campus. With the last hire in METX having taken place in 2008-2009, the upcoming retirement of Professor Flegal will leave the department "critically small." Furthermore, although the undergraduate teaching load of the department faculty appears to be relatively low, the most recent external review of the department makes it clear that this is because METX plays a critical role in the Division by teaching key but (necessarily) small laboratory classes that serve majors from a number of different programs and departments. We are however, concerned about the area that has been selected for recruitment. During our consultation with Dean Koch it became clear that this particularly subdiscipline was selected because of its relatively low startup costs. Given the small size of the department and the fact that Dean Koch plans to cap the size of the department at around 8 faculty, CPB is very concerned about having startup costs be the main criteria driving the selection of the sub-discipline in which a recruitment will be made. The materials from the recent external review for METX make it clear that a hire in environmental toxicology (either as an early replacement for Prof. Flegal's impending retirement, or by moving forward the hire in infectious diseases/climate change proposed by the Division for 2017-2018) would have a much more positive impact for the department and the campus. Hence, we recommend that the sub-discipline of the hire be changed to environmental toxicology. The existence of one-time startup assistance from your office and the fact that we are not recommending some of the other hires proposed by PBSci makes us believe that startup funds should not be an impediment for this change.

CPB supports the proposed hire in Dynamical Systems/Geometry in the Mathematics department using a new centrally allocated FTE. In fact, the committee has recently supported a divisional request to proceed with a dual hire from an ongoing recruitment in lieu of this proposed recruitment. If this second hire is unsuccessful we believe the Division should be authorized to proceed with the hire using a centrally allocated FTE. On the other hand, if the second hire is successful, we expect the open FTE to be transferred to the PBSci open pool to replace provision #369 (which the Division has advanced to expedite the recruitment), but that no further recruitments will be carried out in the area of Dynamical Systems. In spite of our support for this position, CPB is concerned about the overall balance between pure and applied mathematics on our campus (please see the "General Considerations" section). Looking forward, we believe that we need better coordination in the hiring of faculty in mathematical sciences, and that the applied mathematics faculty should assume a much more active role in the undergraduate service curriculum (for example, by covering the mathematics curriculum for engineering students).

CPB does not support the Dean's request for 0.5 FTE (from the pool of centrally-held new positions) to fund additional advising in the division. The committee believes that some of the I&R funds generated by the 5.5 new FTEs recommended should be used for this purpose.

Finally, CPB notes that the PBSci narrative refers to a Physics position in theoretical Materials Science, but no such position appears in the list of requests from the Dean, nor is it listed as a position that has already been authorized. Our understanding is that this position was indeed authorized in the previous cycle, and that the search is expected

to go forward in 2016-2017. If this is not the case, then CPB will want to reconsider its recommendations for divisionally-funded hires in 2016-2017.

### Social Sciences

CPB supports 13.5 hires in Social Sciences, including 2.5 new central FTE. The request from the Division of Social Sciences was also very challenging to evaluate. In principle, the committee was happy to see the Division finally use a substantial portion of its large FTE reserves for faculty recruitment, and interested to learn of ideas for two new Master's programs in the division with the potential to serve an expanded pool of students while providing needed income to support doctoral training. It certainly would have made sense for the recruitment request to mention these possible programs as part of the justification of particular hires. However, having these programs serve as the only rationale for the requested recruitments posed challenges to the committee; it was hard for us to see how the nine hires requested as part of these initiatives would serve the pressing needs of departments in the division, as laid out in recent external reviews, or contribute directly either to undergraduate education or to doctoral growth. Furthermore, as the experience of the Applied Economics MS program suggests, even if the proposed Master's programs can grow to relatively large sizes, the amount of funds that they would generate for supporting doctoral students would be quite modest in proportion to the investment of faculty and staff time they would likely require, further reducing the enthusiasm of the committee for the request.

As a consequence, CPB cannot support at this time any of the nine hires that the Social Sciences division has proposed to staff these very-early-stage proposals. In particular, we see the recruitment of program directors as premature, and potentially questionable. While we are not recommending that the division move forward with any of the hires explicitly associated with the two Masters initiatives, we nonetheless wish to be encouraging of such initiatives and hope that the division will continue the exploration of these, and potentially other, well-conceived, graduate programs. CPB would be excited to support any such initiatives for which a clear case is made for both need (by society) and demand (by prospective students), and for which consultation and coordination with Social Sciences departments and other divisions garners sufficient support and enthusiasm. CPB also believes that new programs of the sort proposed should work in concert with existing academic activities and should spring from, enhance, and/or complement those activities. We expect that the division will address these concerns before proposing any hires in relation to these new programs.

For this year, we support the approval of the remaining hires laid out in the recruitment request. These include two hires in the Economics department (one in International trade/Microeconomics and a second in Macroeconomics) which we believe should be funded by two centrally allocated FTEs; one hire in the Psychology department (in Developmental Psychology, serving as a continuation of the HCI cluster proposed by the Division two years ago); the Coastal Sustainability MS Director (a joint hire with PBSci); and a position in Latin American and Latino Studies (focusing on South-South Intraregional and Interregional Migration). The Economics and Psychology departments house two of the largest majors on campus, both in absolute terms and relative to the size of the faculty. They also present some of the most interesting opportunities for graduate growth in the division, particularly with the focus of the Psychology hire in HCI (which has the potential to raise extramural funding to support graduate students). As mentioned in the General Considerations and PBSci sections, CPB strongly supports the 0.5 FTE Director's position in a TBD department in the Social Sciences to serve as the anchor for the new Coastal Sustainability MS program. Finally, Latin American and Latino Studies is a department with growing undergraduate and graduate programs.

CPB is also strongly supportive of having the Division make additional hires using the nine FTE that had been originally projected for the new Master's programs. The Social Sciences Division has a much larger reserve of FTEs than any other Academic Division, a fact that has been a recurring concern of our committee. Our recommendation is for the division to be authorized to move forward in 2016-2017 with all seven hires proposed for the 2017-2018 year, as well as with the top two priorities for the 2018-2019 years. This would add two additional hires in Economics and two additional hires in Psychology (all of which are sorely needed given the large undergraduate enrollments and the potential for graduate growth), as well as one hire each in Anthropology, Sociology, Politics, Environmental Studies, and Latin American and Latino Studies.

Sincerely,



Abel Rodriguez, Chair  
Committee on Planning and Budget

cc: Academic Deans  
VC Delaney  
VPAA Lee  
VPDGS Miller  
GC Chair Smith  
AVC Peterson  
Assistant Director Lehr