



CHAIR, ACADEMIC SENATE
RIVERSIDE DIVISION
UNIVERSITY OFFICE BUILDING, RM 225

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March 14, 2012

Robert Anderson
Professor of Economics and Mathematics
UC Systemwide Academic Senate
1111 Franklin Street, 12th Floor
Oakland, CA 94607

Dear Bob:

RE: REVIEW OF THE UC OBSERVATORIES

In response to your request, the UCR Senate Committee on Research and the Committee on Planning and Budget considered the documents related to the review of the UC Observatories (UCO). Their reactions to the report reflect different types of concerns, which I summarize below. Their reports are attached for your reference.

Committee on Planning and Budget (P&B)

P&B agrees with the conclusions reached by the review committee regarding the excellent accomplishments of UCO, which has given UC great stature in the international scientific community. The committee stresses that UCO provides a venue to integrate UC astronomy efforts on all the campuses, thus providing the largest “astronomy group” in the world. In this way, UCO provides a platform for smaller campuses such as Riverside to participate in this core area of scientific research without the resource constraints imposed by its size.

P&B supports the management reforms advocated in the review and recommends the following:

1. the appointment of a board of oversight for UCO;
2. revision of the 80:20 OR positions to increase UCO’s engagement with the teaching mission of the university;
3. greater involvement of non-UCSC faculty in decision-making to justify continued systemwide funding;
4. more outreach to the public, including the promotion of STEM education in economically disadvantaged communities at all 10 campuses;
5. revision of the current funding model for UC astronomy to decrease reliance on the UC system as a source of funding;
6. support for the development of the Thirty Meter Telescope (TMT), which will position UC in the forefront of world astronomy. The Moore Foundation gift of \$125M for TMT, which is the largest gift UC has ever received for a single scientific project, will greatly help in securing this investment. P&B stresses that the lack of seed funding for instrumentation facilities would be an insurmountable barrier to research in this scientific field. It also notes that UC astronomers have leveraged access to Keck telescopes to acquire extramural funds from private and federal

agencies. Analysis of the cost of these telescopes in the review overlooked the multiplier effect of federal funds, P&B urges UCO to participate in a reanalysis of these data.

Committee on Research (COR)

COR raised several concerns pertaining to the data used to justify continued high-level support of the UCO, specifically:

1. *Justification for 14 ORI&R faculty positions.* In a time where almost all parts of the research and teaching functions of the University have suffered severe cutbacks, it struck COR as surprising and unacceptable that there was no consideration of the appropriate number of faculty positions that need to be dedicated to UCO. This topic is relevant to many other current UC funding decisions, and it should have been considered explicitly in this review. Also, other important aspects of the program were not discussed that are important for justifying continued high-level support for UCO, including:
 - a. Graduate Student & Post-Doctoral training. There were no data on the effectiveness of training associated with UCO.
 - b. Indirect cost recovery. There were no data on the effectiveness of the 14 faculty in obtaining extramural funding. However, if the review team did not believe that extramural funding is an appropriate metric of research excellence, this should be explicitly stated.
2. *Use charges.* UC faculty have been subject to an increasing number and rate of charges for many types of services that are essential to the research endeavor and that, in previous years, were provided by campuses for no charge. We understand that there are no charges for Observatory use by UC faculty. We are not suggesting that there should be charges, only that the topic is an integral part of justifying the UCO budget in these difficult times.

Sincerely yours,

Mary Gauvain
Professor of Psychology and Chair of the Riverside Division

Attachments: Responses from Planning and Budget and Committee on Research

CC: Martha Kendall Winnacker, Executive Director of the Academic Senate
Sellyna Ehlers, Director of UCR Academic Senate office

March 13, 2011

TO: MARY GAUVAIN, CHAIR
RIVERSIDE DIVISION

FM: UMAR MOHIDEEN, CHAIR
PLANNING AND BUDGET

RE: Review of the UC Observatories

Planning and Budget reviewed the documents related to the review of the UC observatories (UCO). The committee supports the conclusions reached by the review committee. Based on the review, the past performance and accomplishments of UCO have been excellent. UCO has performed a vital mission in enabling and highlighting the research excellence of the UC in the international community. The management reforms advocated by the review should be followed through, in particular, the formation of a systemwide board for meaningful oversight and reexamination of the teaching roles of OR appointees. In addition, we would like to add that UCO should involve more non UCSC faculty in critical decision making processes, if systemwide UC funding is to be justified. Also UCO needs to be involved in more outreach to the public and the promotion of STEM education statewide particularly in economically disadvantaged communities using all the 10 campuses as bases. Planning and Budget also supports the need for the Thirty Meter Telescope (TMT) to position UC in the forefront of world astronomy. Details and reasons for these positions are provided below.

Why we support the activities of the UCO?

- UCO has definitely raised the research profile of UC both nationally (20% of Astronomy Academy Members) and internationally (2011 Nobel Prize in Physics; successful design, construction, maintenance and management of the Keck Telescope, which is the largest telescope in the world).
- The UCO, as an organization, unites all 10 UC campuses. It provides a venue to integrate the efforts in all the campuses, providing the largest “astronomy group” in the world. UCO provides a platform for smaller UC campuses such as Riverside to participate in this core area of scientific research without the resource constraints imposed by its size.

Why we support the need for KECK and TMT?

- The telescopes are the special systemwide instrumentation facility for the Astronomy discipline, similar to small but numerous instrumentation facilities available for many scientific branches in

all campuses. Lack of seed funding for instrumentation facilities would be an insurmountable barrier to research in any scientific field.

- UC astronomers have leveraged the access to Keck telescopes to acquire substantial extramural funds from private and federal agencies and will continue to do so. We also note that only the cost of these telescopes has been noted, overlooking the multiplier effect of federal funds, which is substantial given the special access to UC faculty. We urge UCO to help with this analysis.
- UC's investment on TMT is heavily leveraged against private and federal funding. The Moore Foundation gift of \$125M to UC for TMT is the largest gift UC has ever received for a single scientific project. Thus UC obtains a substantial share of TMT with minimal investment.
- In a recent survey of the astronomical community within the UC system, conducted by UCOP, over 90% put Keck and TMT at the top of their list of priorities. All the UC campuses unanimously supported the Keck and TMT. This will continue to keep UC in the international forefront of astronomy. We also note that one UCR faculty is a project scientist for one of the TMT instruments.

What reforms might need to be done?

- We support the appointment of a board for meaningful oversight UCO.
- We support careful revision of the 80:20 Organized Research positions to involve the teaching mission of the university.
- Astronomy is a field readily accessible to the public and is a popular gateway to attract students into the STEM fields. UCO needs to more involve the other 9 campuses in outreach, particularly those serving underrepresented minorities and economically disadvantaged communities which have the lowest science education in High Schools in the nation.
- UCO needs to organize more scientific training and workshops for students and faculty to use the systemwide facilities and provide seed research funding to more tightly involve the other 9 campuses.
- It is understandable that the current funding model for UC astronomy may have to be revised, with less reliance on the UC system as a source of funding.

February 29, 2012

To: Mary Gauvain, Chair
Riverside Division

From: Leonard Nunney, Chair
Committee on Research

Re: Review of UC observatories

The Committee on Research considered the documents related to the System-wide Review of the UC Observatories. We did not concern ourselves with the nature of the conclusions; instead we focused on the nature of the data used (or rather not used) in reaching those conclusions. We had the following concerns:

Justification for 14 OR/I&R faculty positions. In a time where almost all parts of the research and teaching functions of the University have suffered severe cutbacks, it struck us as surprising (and inappropriate) that there was no consideration of the appropriate number of faculty positions dedicated to the UC Observatories. Data relevant to a discussion of the appropriate number of positions could also be used in a more general context in the Review. Two examples are:

Graduate Student & Post-Doctoral training. There were no data on the effectiveness of training associated with the UC observatories.

Indirect cost recovery. There were no data on the effectiveness of the 14 faculty in obtaining extra-mural funding. Alternatively, if the review team did not believe that extramural funding is an appropriate metric of research excellence, then this should be explicitly stated. This is a topic that is very relevant to many other UC funding decisions, and should have been considered head-on in this review.

Use charges. UC faculty are increasingly charged for services essential to their research endeavor that used to be provided by campuses for no charge. We understand that there are no charges for Observatory use by UC faculty. We are not suggesting that there should be charges, only that the topic is an integral part of justifying the UC Observatory budget in these difficult times.