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## **Summer Research Subsidies**

Wolfle's editorial (12 Aug., p. 697) pointed out the difficulties that "undernourished small colleges" have in obtaining financial assistance for improving their staffs and facilities. As a teacher in one of the lowest categories of "college" (a California junior college), I would like to add that there is even more difficulty encountered by a junior college teacher who desires to do research. The school district from which I write has loudly proclaimed its antagonism to "federal aid," thereby curtailing many programs. Likewise, it is apparently opposed to research by the faculty (it refuses to reply to questions on the subject, and it rejected a sabbatical leave for research). As Wolfle said, "... the administrators of some small colleges were uninterested in faculty research. Some were even hostile." Perhaps this attitude is to be expected when there is not a single Ph.D. in the administration of the entire school district under discussion.

If the latter are any criteria, then it would seem advantageous to institute financial support for research during summers only. If a teacher could be given a year's leave, he might apply for NSF grants for scientific research, but my state education office has not answered two letters requesting information about such a leave. Further, a junior college with emphasis entirely on teaching is not considered an "appropriate" institution for purposes of research association. Perhaps NSF Senior Postdoctoral or Science Faculty Fellowships could be used, but, "It is not . . . the purpose of these fellowships to provide support for research projects as such." Inquiries to the National Research Council, National Academy of Sciences, and the Research Corporation have all been fruitless.

Since there are undoubtedly many worthwhile research projects in progress or envisioned, it seems senseless not to have some source of support available. Therefore, I recommend that some agency establish a "consecutive summers" support plan for those teachers who have no other time or help for their research. Such a plan may be a part of the "Research in Washington: plans afoot for advanced study center" (23 Dec., p. 1530) project, but that is in the far future.

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## The Original "Krow"

It was with a singular sense of honor that I read the recent suggestion (Letters, 6 Jan.) that my work be used as a model for evaluating research productivity ("Krow" units: a new evaluation). As I hope to complete my thesis this year, the sought-after standard for research output should soon be universally available.

**GRANT KROW** 

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## Wanted: Seasonal Naturalists

The opinions of Calder (Letters, 2 Dec.) on the National Park Service were very similar to those I formed while spending three summers as a seasonal naturalist. I am not certain that the desire to do, or competence in scientific research is a prerequisite to a successful park naturalist. That progress in the naturalist programs has lagged behind progress in other fields of biology and geology may be due to the quality of personnel available for employment -particularly the seasonal naturalist. The job does not appeal to high school and college teachers primarily because of the GS-4 salary scale and the general lack of facilities for married individuals with families. If the parks are to be staffed with high-quality summer personnel, they must be graduate and undergraduate students. But talented students in "field biology" are attracted to other summer programs and the experimental or "laboratory biologist" seems to consider such experience outside his field and of little value.

I agree with Calder that the colleges and universities need to encourage students to consider this sort of experience. For anyone eventually intending to teach, whether as a "field or laboratory" specialist, experience as a seasonal naturalist is easily worth the sacrifices. On the other hand, the NPS needs to introduce a program which keeps college students aware of the employment opportunities by advertising on college bulletin boards for their seasonal personnel. If the schools don't encourage such employment and the NPS doesn't advertise it, how can we be assured that our national heritage will be in the hands of our best personnel?

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