Letters

Distribution of the NSF Dollar

Millett (Letters, 19 May) exposed the deficiencies of Ohio rather than of the National Science Foundation and apparently missed the most important implication for our state, as well as for the rest of the country, in the interesting data he presented on the distributions of population, NSF grants and contracts, and NSF fellowship awards among the states. Although geographic inequities in NSF's program may tend to "redistribute state wealth" by collecting taxes in states like Ohio to pay for programs in states like California, it does not follow that NSF fails to advance the economic and intellectual status of "have-not" states like Ohio. Aside from the obvious fact that an Ohioan can use the openly published product of a Californian's work, a careful look at Millett's data shows that NSF is, in fact, biasing its support in favor of the "have-nots." The percentage of NSF fellowships received in a state should be thought of as a measure of the state's scientific excellence, because the fellowships tend to be awarded competitively and without regard to geography. If grants and contracts were awarded solely in terms of excellence, then the percentages of these would be about the same as the fellowship percentages.

Millett's data show that NSF was, indeed, following a leveling program in 1966, as shown for the larger money-

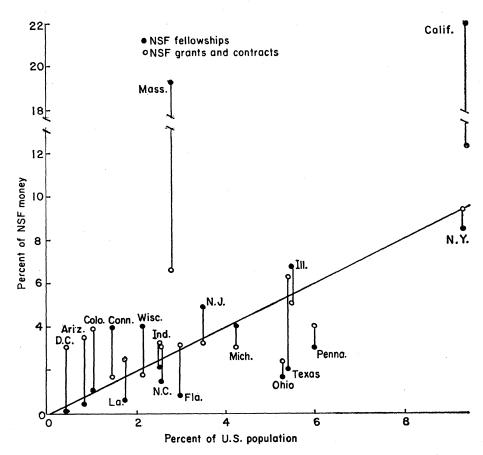


Fig. 1. NSF 1966 support to states receiving 2 percent or more of the NSF budget, with diagonal showing support expected on basis of population. States favored by fellows above expected level received less grant and contract support than warranted by the fellows' "vote," and nonfavored states received more, tending to "level" support toward the diagonal. [Data from Millett's letter, 19 May]

makers in Fig. 1. The distribution of grants and contracts tended to counterbalance the states' scientific status. The notably excellent states, which attracted significantly more fellows than one would expect from their populations (California, Massachusetts, Illinois, New Jersey, Wisconsin, and Connecticut), were all discriminated against in 1966 by receiving relatively less NSF grant and contract money than fellowship money. Thirty-eight of the other states got more grant support than their attractiveness to fellows warranted.

NSF was apparently doing what Millett seems to want it to do: trying to upgrade the economic and intellectual development of "have-not" states. It did this at the expense of states like California, Massachusetts, and Wisconsin, and perhaps at the expense of the overall excellence of our national scientific product. It is unusual that an Ohio official would publicly favor a kind of federal pump-priming to improve the intellectual health of disadvantaged states like Ohio. (In defense of my state I might note that it is not the worst offender; the greatest amount of such pump-priming seems to be directed at Texas, and this is something to ponder.) A solution more in tune with typical Ohio political attitudes would be that we should help ourselves by making our universities as attractive as Berkeley has been to the bright young men from Maine and elsewhere. When we do that, the research and technology dollar will follow naturally.

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Amazonian Wildlife and Forests

As one who has traveled over and through the Peruvian areas visited by Heltne, and areas in Brazil, Colombia, and the Guianas as well, I can share his concern for the Amazonian wildlife (Letters, 14 July). In some places hide hunters have virtually eliminated the caiman, and fish collectors have reduced certain aquarium fishes to near extinction. But Heltne seems unaware of the fact that Amazonian mammals have never in historic times been nearly so abundant as they were recently in North America or as they still are in parts of Africa. (Those that are present are shy and nocturnal, which may