

letters

Defense budget debate

I agree with your editorial statement (January, page 136) that the magnitude of the defense budget (as well as any other part of the federal budget) should be open to public debate. But I do not believe your editorial helped this debate because your discussion of the economic issues contained so many inaccuracies.

For instance, the proposed defense expenditures for FY 1980 are only 23.7% of the federal budget, not 40% as you claimed ($\$125.8 \text{ billion} \div \$531.6 \text{ billion} = 0.2366$). On top of this, you neglected to

mention the \$277 billion outlay for welfare or "human resources" program in the proposed budget (\$291 billion if aid to communities and revenue sharing are included). In fact, data from the Office of Management and Budget shows that human-resources funding has been significantly greater than defense spending for this entire decade, culminating by being a factor of 2.32 greater than the defense expenditures (\$260 billion to \$112 billion) in the FY 1979 budget. The inescapable conclusion is that, contrary to your claim, defense spending does not strain our economy nearly as much as welfare spending. For the record, my information comes from the January 22 and 29 issues of *U.S. News and World Report*.

RONALD I. MILLER
Huntsville, Alabama

2/3/79

The 40% figure quoted in the editorial was taken (see figure) from the new book by the Boston Study Group mentioned in the editorial (the correct title of the book is *The Price of Defense*). Readers should be aware that the \$260 billion for human resources presented in *U.S. News and World Report* includes roughly \$100 billion for social security and close to \$20 billion for veterans' benefits. The social-security money, of course, is collected directly from taxpayers earnings and paid back to them from a trust fund. In the analysis by the Boston Study Group, social security funds were excluded from the total budget and veterans' benefits were included in the defense budget.

The Editor

Dress for working physicists

I found myself amused and aroused to comment by a picture of D. Allan Bromley (January, page 35). He appears to be dressed in a tuxedo, with a white handkerchief peeking out of his breast pocket. Surrounded by massive apparatus, he is "checking the alignment of the apparatus before a run."

The April 1977 issue of *PHYSICS TODAY* showed Robert Adair, dressed quite differently, soldering his apparatus at Brookhaven National Laboratory. The title on that cover was "Image of the Physicist." Inside the issue was the farewell report of William A. Fowler, retiring APS president. He commented at

million dollars	
Military: Current plus Veterans plus Retired pay	127.2
Interest on debts	39.7
Individual income supplements (includes medical costs)	73.0
Revenue sharing and Regional development	15.9
Law, Justice, Government	7.7
Commerce and Transport	19.3
Agriculture, Energy, Environment HEW Grants Resources, Science, Space, Technology	40.3
All other	12.8
TOTAL	\$336.

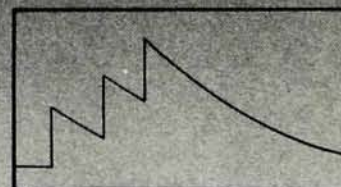
Federal expenditures for FY 1978. Analysis excludes direct transfer from social-security trust funds to social-security recipients.

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letters

length on our image, especially the "false image" we present to the layman by dressing up and posing for photographs instead of showing what working physicists really look like.

I would like to know if the editors agree with Fowler's point, and whether they make an effort to eliminate such silly pictures of physicists supposedly at work. Please note that I don't find the other pictures in the issue objectionable as they are all either mug shots or show ceremonial occasions. None purports to show physicists at work.

STEVEN GOTTLIEB
Argonne National Laboratory
3/14/79 Argonne, Illinois 60439

We certainly agree with Fowler that photographs should show physicists unposed—however, no one we know of has ever seen Allan Bromley not wearing a bowtie.
The Editor

Mark Twain's black hole

This year, while we celebrate the centennial of Einstein's birth, the black hole is a popular object for many public lectures and articles for the layman. It is not well known that Mark Twain has described in his inimitable style some of the properties of this singular object. The following passage copied exactly is from Mark Twain's short story *Jim Baker's Bluejay Yarn*.

"Then he cocked his head down and took another look; he glances up perfectly joyful, this time; winks his wings and his tail both, and says, 'O, no, this ain't no fat thing, I reckon! If I ain't in luck!—why it's a perfectly elegant hole!' So he flew down and got that acorn, and fetched it up and dropped it in, and was just tilting his head back, with the heavenliest smile on his face, when all of a sudden he was paralyzed into a listening attitude and that smile faded gradually out of his countenance like breath off'n a razor, and the queerest look of surprise took its place. Then he says, 'Why I didn't hear it fall.' He cocked his eye at the hole again, and took a long look; raised up and shook his head; stepped around to the other side of the hole and took another look from that side; shook his head again. He studied a while, then he just went into the details—walked round and round the hole and spied unto it from every point of the compass. No use. Now he took a thinking attitude on the comb of the roof and scratched the back of his head with his right foot a minute, and finally says, 'Well, it's too many for me, that's certain; must be a mighty long hole; however, I ain't got no time to fool around here. I got

to 'tend to business; I reckon it's all right—chance it, anyway.'

So he flew off and fetched another acorn and dropped it in, and tried to flirt his eye to the hole quick enough to see what become of it, but he was too late. He held his eye there as much as a minute; then he raised up and sighed, and says, 'Consound it, I don't seem to understand this thing, no way; however, I'll tackle her again.' He fetched another acorn, and done his level best to see what become of it, but he couldn't. He says, 'Well, I never struck no such a hole as this, before; I'm of the opinion it's a totally new kind of a hole.' Then he begun to get mad. He held in for a spell, walking up and down the comb of the roof and shaking his head and muttering to himself; but his feelings got the upper hand of him, presently, and he broke loose and cussed himself black in the face. I never see a bird take on so about a little thing. When he got through he walks to the hole and looks in again for half a minute; then he says, 'Well, you're a long hole, and a deep hole, and a mighty singular hole altogether—but I've started in to fill you, and I'm d-d if I don't fill you, if it takes a hundred years!'"

C. KRISHNA KUMAR
Howard University
3/13/79 Washington, D.C.

More on OMB regulations

I was puzzled by the discussion in the "State and Society" department in February (page 85) of new OMB regulations on figuring the cost of federally sponsored research projects. In particular, I was puzzled by the fact that you thought that these regulations "may create problems for university research programs." So far as I can judge from your description, they may in fact help university research programs.

I am sure you are aware that grants made by government agencies tend to be made for a fixed sum. Insofar as payments must be made to the university for overhead and "staff benefits," the amount of money available for research is drastically reduced. The universities, who are represented by their administrators, attempt to increase the amount of the overhead as much as possible because they would like to funnel the funds as much as possible into their "unrestricted" budgets. These unrestricted funds are very seldom used for scientific research. In addition, many schools make substantial charges under the "staff-benefits" heading for graduate-student tuition scholarships, which are awarded in the institution as a whole and may have no relation to the research being supported by the grant. Insofar as the negotiations

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