

Who Pays the Bills?

To a European physicist who lacked hard currency I once said, "But the publication charge is not obligatory." He answered, "Yes, but if you don't pay, you don't get the reprints."

Many persons are questioning whether grants for research should support education.

Two societies object that the American Institute of Physics should not receive all the income from a show that the societies make possible with their meeting. The institute begins to study services to the member societies that the societies are not paying for.

Publishers worry that easy copying may make book publishing obsolete. Without income from books, who pays the authors?

In a rapidly changing society one of the tough problems is to keep an acceptable relation between enjoyment of benefits and assessment of costs. Does the man who eats the candy pay the nickel?

The question faces physics in many ways. Should a man who wants reprints pay for the printing of journal pages? Is the expense of manpower statistics borne by the man who uses them? Is the taxpayer getting what he wants or needs for dollars that buy accelerators and space shots?

Life seemed simple when free enterprise provided the coupling between an ever limited supply and an ever infinite demand. What a man wanted most he would pay the most

for, and that was what his neighbor worked hardest to supply. Feedback made the system self-correcting. Of course there were weaknesses; hospitals where people were able to pay might not serve the people most in need. But there were advantages; the system met more needs than its competitors.

The picture darkens with affluence and complexity. A billion dollars for an orbiting observatory is not subject to open and unrestricted competitive bidding. Planning becomes inevitable. The rub comes, of course, when planning upsets the checks and balances of free enterprise but does not, by itself, do at least as good a job of apportionment.

Fiscal maladjustments often occur because the system grows faster than anyone can keep up with it. Take printing, for example. When it was the expensive part of bookmaking, you could tie other costs to it and come out with reasonable proportions among services rendered, benefits received and efforts put in. But with the development of easy reproduction processes, the system falls out of synchronism, and someone, the author perhaps, is left without a reasonable incentive.

In a similar situation stand physics organizations that provide publications, meetings, placement services, statistical surveys, libraries, archives. In times of expansion nobody worried much. Nobody had time to; everyone was busy doing the jobs that needed to be done. But when budgets are cut, the ax starts

to fall at random, sometimes on things that should not die.

One of those periods is upon us, and the administrators are very busy figuring out how to meet the situation. The first scramble is for money enough to pay obligations already undertaken. Then come longer-term efforts to see what activities should be carried on, who gains from them and who should support them. In the end the effort will improve our health. Our physics organizations have been growing for a long time now. They have affiliated, formed divisions, founded journals, instituted services. It is useful and good that someone should now examine what has grown up.

We wonder whether the time has come for the physicists to extend this effort into a general and basic reassessment of who gets the benefit from ancillary services and who pays the bills. A committee might bring the big picture into focus. Meanwhile subcommittees might examine each organization in the family, and subsubcommittees might examine how different activities within each organization contribute to the whole and derive their support. Accountants could keep us straight on financial facts of life; lawyers could study legal constraints; teachers and researchers could look for academic excellence and performance standards. We would like to propose such a reassessment, perhaps with the assistance of federal agencies charged with diagnosing the health of science.

— R. Hobart Ellis Jr