pure research with a harder and harder squint.

Pure research in the Soviet Union used to be justified on grounds of national prestige, culture and scholarship. Now its defenders are sounding a practical note. Speaking at a meeting in Miami last winter, Prof. D. I. Blokhintsev of the Joint Institute of Nuclear Research at Dubna gave an apology for pure science that was based on its benefits to human life rather than to human intellect. And Soviet physicists who have been working toward the design of a planned 1,000-GeV particle accelerator justify themselves in the volume of plans they have written by saying: "The history of the development of physics shows that the discovery of fundamental laws leads, as a rule, to the revolutionary advancement of engineering."

The Soviet Government would like to see it happen. ◇

SOCIAL WORK

Choosing a new way

The nation's welfare programs have been a thorn in the side of city governments for a decade or more. Recently they have become a national issue, and one which the Nixon Administration is girding its loins to handle.

Last week, as Mr. Nixon was trying to pick one of several plans to revamp the nation's welfare system, the issue erupted in a raucous invasion of the 96th annual forum of the National Conference on Social Welfare by a group of insurgents trying to finance their own activist organization.

The Administration is wavering between the idea of a straight Federal minimum for welfare payments (SN: 5/10, p. 448), leaving the structure of the system relatively intact, and the more radical approach of the negative income tax (SN: 11/16, p. 497), called the Family Security Plan by the White House. The FSP would supplement the income of families with low incomes and support those which had no income. Under the plan, a family of four, with no income, would receive $1,500 to $1,800 annually.

The Family Security Plan, being pushed by Secretary of Health, Education and Welfare Robert H. Finch and Urban Affairs Council Director Daniel P. Moynihan, would stimulate and reward poor people to get work rather than rely entirely on welfare payments. Under the present system, if a father is employed, his family gets little aid, no matter how marginal his income.

Under the negative tax plan, recipients would be guaranteed a basic annual income. The amount they received would be reduced by half of what they earned: A family that earned $2,000 would have its welfare payment reduced by $1,000. When the family income reached a cut-off point—$3,000 in the Moynihan plan—the payments would stop.

At the prestigious social welfare conference, headed by former HEW Secretary Arthur S. Flemming, the concern among the 7,000 delegates was with the basic details of social work. Week-long meetings, forums and exhibits dealt with employment opportunities in social work, relations with the black community, work with the mentally retarded, the aged and the drug addict.

But outside the meeting halls, and sometimes inside them, the insurgent members of the National Welfare Rights Organization demonstrated for a revamping of the entire public assistance system. The group's demands are along the lines of the Moynihan approach: a guaranteed minimum income and a national minimum for public assistance.

The radical group, headed by militant civil rights advocate, Dr. George A. Wiley, is demanding that the social workers attending the meeting and the national conference donate $35,000 as a downpayment on the $250,000 he says his group needs for operating expenses this year. Dr. Wiley, an organic chemist and former associate national director of the Congress of Racial Equality, claims the NWRO has 30,000 members, most of them Negro women on welfare.

The demonstrators began by trying to disrupt registration in the national conference by demanding one dollar from each delegate as a "poor-people's surcharge."

The reaction of the social workers was a mix of the mild and the indignant. Dr. Flemming, though he had the microphone snatched from him, said he believed the conference should support Dr. Wiley's movement. He rejected the money demand but said the general membership might reconsider. Members of the audience were not so tolerant, and shouts of "blackmail" echoed from the 3,000-member audience in the New York Hilton.

A major complaint of welfare recipients has been what they call unjust distribution of benefits handed out on the basis of investigations into their personal life to determine if they meet the requirements of local ordinances. This is the reason for the demands for national guaranteed minimum income, under which the only criterion for getting aid would be a lack of money coming in. Such a system, which is the basis of the negative tax idea, would eliminate the need for investigations, surprise visits, and all the other investigative operations that fill the social worker's workday.

PROJECT GRANTS

Splitting the costs

Universities here have long contended that for every dollar of Federal research support they receive they spend 15 to 30 cents of their own for overhead, not covered by the research project grants.

Federal efforts to deal with the problem, either by setting a Government-wide standards for overhead or by denying that they are legitimate, grant-linked expenditures, have been going on for a decade. But university officials have never agreed on the fairness of agency-by-agency standards, and even Bureau of the Budget guidelines have failed to bring peace.

Under the mantle of concern with the Government's policy of paying all the direct costs but only part of the indirect costs universities incur for research, Sen. Fred Harris (D-Okla.), chairman of the subcommittee on Government research of the Committee on Government Operations, has been holding hearings aimed at reviewing Federal support of education.

The Harris hearings are not leading to any new legislation, but are aimed at blocking proposals that may come from members of the appropriations committee, including Sen. Karl E. Mundt (R-S.Dak.), who also sits on the research subcommittee. Mundt contends that in paying an additional 25 percent of grant levels in indirect costs, the Government is really subsidizing the administrative activities of some universities (only 100-150 institutions receive substantial support because most small schools are unequipped for major research) and that the others deserve a share of the Federal pie. "How can we grant money to smaller universities," he asks, "instead of concentrating on Harvard and MIT?"

Last year, Sen. Mike Mansfield (D-Mont.) maneuvered through the Senate a 25 percent ceiling on indirect costs, to which the House did not agree.

One solution to the hassle over direct versus indirect costs and the question of whether or not universities should share the financial burden of research may lie in a Bureau of the Budget proposal to abolish grants and contracts and replace them with research agreements. "The difference between grants and contracts is essentially one of semantics," says Phillip S. Hughes, deputy director of the Bureau of the Budget, who contends their use under varying circumstances is more traditional than logical. Just what a research agreement would be is, at this point, rather undefined but, Hughes comments, "it would be a middle ground," an arrangement that could be

negotiated case by case, taking into account the varying bookkeeping procedures that make an expense like faculty salaries a direct cost at one institution and an indirect expense at another.

One way to meet Sen. Mundt's concern that the Federal pie be shared with small colleges may lie not in significantly altering the contract-grant system but in beefing up the Federal program of institutional grants—money allocated to a college or university on a no-strings-attached basis, rather than to an individual scientist (SN: 3/8, p. 231). Rep. George P. Miller (D-Calif.) and Sen. Harris (SN: 3/29, p. 306), have introduced bills to marshall support for science education on a broad scale, through institutional grants. Under both bills, distribution of up to $400 million a year would be through the National Science Foundation.

The National Science Board has endorsed this approach, contending that it simply reflects the way grant money is spent by universities anyway. ◇

MEDICAL SERENDIPITY

Amantadine for Parkinsonism

Amantadine chloride has been used as a preventive of Asian flu. It is now being tried with some success by a group of Harvard Medical School physicians to treat Parkinson's disease, or shaking palsy.

The idea started about a year ago, when a 58-year-old woman who had been taking the drug to prevent the flu experienced a remarkable remission in her Parkinson's symptoms: rigidity, tremors and lack of ability to move about. After six weeks she stopped the dosage—and the symptoms promptly returned.

Dr. Robert S. Schwab and three coworkers report preliminary tests with 163 patients. Sixty-six percent of the group showed improvement of their symptoms while receiving the drug during a six-month period.

Amantadine chloride is now available to physicians specifically to treat Asian flu. If they use it to treat symptoms of Parkinson's disease they must have the informed consent of the patient, although this does not have to be in writing.

Nine of the 163 patients dropped the drug to begin treatment with L-dopa, another drug that has had considerable publicity for its experimental use on Parkinson patients. All nine had been helped by the amantadine, and also were helped by L-dopa. The researchers say that one of the possible applications of amantadine could be as an indicator of subsequent benefit from L-dopa.

"Since amantadine does not require hospitalization or the elaborate time-consuming build-up in dosage necessary with L-dopa," they explain, "it is a substitute until the latter is available to all patients."

Just how amantadine lessens the symptoms of Parkinson's disease is not clear from its pharmacology. It is a stimulant, and the Harvard group found that a large percentage of improvement was reported as an increase in alertness, activity, interest and improved mood.

Twenty-two percent of the patients showed some side effects such as jitteriness, insomnia, abdominal uneasiness, loss of appetite, slight dizziness, and, in one patient, a feeling of depression. They disappeared promptly within 36 hours after the therapy was stopped, however. The investigators suggest cutting down on other medication being given at the same time.

One of the most promising patients was a 67-year-old man who had been totally invalided after 21 years of progressive Parkinson's disease. Within 24 hours of taking the amantadine treatment he was able to move around for the first time in two years, partially dress himself, complete his meals and get in and out of bed alone. The improvement persisted for three weeks without complications, but side effects then made it necessary to reduce the dosage of other medications he had been taking. He remained very much improved.

Working with Dr. Schwab were Drs. Albert C. England Jr., David C. Pozkanzer and Robert R. Young. All of them are in the department of neurology at Harvard and in the Parkinson's disease project and neurology service of Massachusetts General Hospital in Boston. They reported their work in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

POST OFFICE

Streamlining moves ahead

Despite increased attention to research and mechanization in recent years, the U.S. Post Office Department still employs some mail handling procedures dating back 100 years. Hindered by old-fashioned practices, political appointments and bureaucratic procedures the department wallows in a $1.2 billion deficit.

In an effort to modernize the system, President Johnson's Postmaster General Lawrence F. O'Brien proposed to transform the department into a corporation, along the same lines as the Tennessee Valley Authority, with the power to finance its own operation by selling interest-bearing bonds. Three days after O'Brien's recommendation, President Johnson appointed a commission headed by Frederick R. Kappel, former chairman of the board of the American Telephone and Telegraph Corp., to evaluate the idea. In June 1968, the commission made its report, recommending that the department be set up as a corporation and that its research effort be intensified (SN: 9/7, p. 245).

Last week, the plan came a step closer to realization when the Nixon Administration sent to Congress its bill to reorganize the Post Office along the lines recommended by the Kappel commission.

In fiscal year 1969, the postal budget for research and development came to $35.6 million out of a total budget of $7.5 billion. For the year that starts July 1, the corresponding figures are $51.8 million and $7.8 billion or about a 45 percent jump in RD&E spending.

But when Paul G. Hendrickson, director of postal operations, research and engineering, testified at a hearing before a House subcommittee in March, he said: "Only $37.6 million of the $51.8 million is to be used for research and development activities. This is less than one-half of one percent of total estimated postal obligations for that year. The National Science Foundation indicates that private investment in research and development by firms with 5,000 or more employes approximated 2.1 percent of net sales in fiscal year 1965. Accordingly, the relative emphasis on research and development recommended by the department for fiscal year 1970 is less than one-fourth the rate industry found necessary five years previously."

There are numerous projects, such as electric vehicles for mail delivery, smaller and cheaper optical character readers for smaller cities and voice recognition of zip code numbers by machines for sorting purposes, that are still in the R&D stage and whose completion will be determined by the funds available for them.

The idea of a separate postal corporation does not meet with universal approval. In Congress, the chief rival to the Nixon Administration bill is one submitted by Rep. Thaddeus J. Dulski (D-N.Y.), chairman of the House Committee on Post Office and Civil Service in January. Presently at the hearing stage, it follows the recommendations of the Kappel commission except for the all important point of making the department a corporation.

Dulski believes that the Post Office is too intertwined in governmental machinery to now set out on its own, unlike TVA, which started out as a brand-new organization. ◇