

Science and Technology

tain (Mr. Clark). Most industrial research is carried on by the multinational corporations in the countries in which the head office is established and not in Canada. The amount of money spent in Canada on academic and industrial research has declined relatively in the last two years and has declined in actual fact especially in recent years. The grants have remained virtually stationary from about 1968-69 until this year, at which time they increased by about 18 per cent. The minister nods his head in agreement. This is the first time in years he has agreed with anything I have said. The point is that in these years we have had an increase in the cost of living of about 35 per cent, and although I am not an expert the scientists tell me that the increase in the cost of scientific research is not 35 per cent but probably closer to twice that figure.

What we have had this year, after years of stationary expenditure, is an increase of 18 per cent. I come back to what I said earlier. Canada spends a lower percentage in terms of its gross national product on academic research than any other country in the industrialized world. The research grants have not been increased even to take care of inflation. So in fact there has been a serious cut in the real money expended on scientific research. This has been taken up a bit by this year's increase but certainly this has not made up for the past years' neglect. Equipment and other costs have been going up. According to my friend from McGill University, there has been a decline in scientific research in Canadian universities in the last three years of 15 per cent or 20 per cent because of the shortage of money. We should be increasing our scientific and technical expenditure at least in accordance with the increase in the inflation factor, and in fact should be increasing it at least by the increase in the gross national product.

That is the approach any sensible country would take. The most extensive scrutiny of scientific research ever done in this country was performed by a committee of the other house under the chairmanship of Senator Lamontagne. After two or three years of study that committee came up with a series of recommendations. It may be that not all these recommendations are correct. I think the Canadian government must grapple with the problem alluded to by my friend from Rocky Mountain. I refer to the fact that virtually all the multinational corporations in the oil industry, the gas industry, the metal industry or in most other industries conduct all their research in other countries.

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Until the government grapples with that fact and tries to overcome it by government policies designed to increase basic research in this country, we will face this shortfall in scientific research. Senator Lamontagne's committee made a whole series of proposals as to what should be done. So far as I know, there has been no public reaction on the part of the Minister of Science and Technology or the government to those proposals. Not once in this House or outside it in speeches which the minister or the former minister made every year to various scientific associations was there a response to the recommendations made by Senator Lamontagne's committee. I say that that is a disgrace. We are still operating a scientific policy by the

[Mr. Orlikow.]

seat of the minister's pants, and I tell the minister that I do not have any confidence in him or the seat of his pants.

Before I go on to discuss medical research, let me put on the record figures which appeared in *Science Forum* in its issue of June, 1974 in an editorial headed "Academic research: down, perhaps on the way out". Let me quote a few sentences from it, and then put the figures on the record and bring it up to date with the figures which we now have which have come out since this editorial was written. As I say, this is written by *Science Forum*. It is not a political journal, it is not for or against the government, except in so far as the government fails to meet its responsibilities to the people of Canada and to the science community. Here is what they say in that editorial:

As is widely known, the present is not a propitious time for the support of research in Canadian universities. What is not so widely known is the severity with which restrictions on public investment in academic research have been applied over the past few years. Some bald facts will illustrate the actual situation.

Parliamentary appropriations to NRC over the past several years for grants in aid of research and for graduate scholarships are as follows:

1968-69	\$59,017,000
1969-70	64,760,000
1970-71	64,794,000
1971-72	67,543,000
1972-73	66,543,000
1973-74	68-593,000
1974-75 (estimates)	69,293,000

I looked at the current estimates, and those figures can now be corrected as follows. For 1974-75, the actual expenditures were \$70,278,000. For 1975-76, they are \$82,973,000. As I indicated earlier, that is an increase of 18 per cent. Then they go on to analyse these figures. I hope the minister will listen. They say as follows:

From this we see that, since 1969-70, when severe financial restrictions were first imposed, the total increase in appropriations has been a mere 7 per cent. During the same period, the cost of performing research has increased by at least 50 per cent . . .

In the ten-year period to 1970, a few departments in the physical sciences in Canadian universities were beginning to attain a standard approaching that of good universities in some other countries such as the United States. Now their further progress has effectively been stopped and their competitive position degraded. At the same time, as in the support of medical research, insufficient funds have been made available to allow any new departments to become competitive.

That is the judgment, not of a member of parliament, not of a member of the opposition who does not know much about scientific research, as very few of us do—and unfortunately neither does the minister—but the assessment of the scientific community. The minister can smile, but those are the facts.

What about medical research? There have been some increases in funds granted to the Medical Research Council to supposedly take care of the increased cost of living. But in fact the government has not really given sufficient funds to take care of the actual increase in the cost of doing scientific research. Even if the government argues—which they have not done—that there should be no expansion in the amount of money spent on medical research, there has not been enough money just to maintain current program levels.