

ARE PHD'S IN SURPLUS ON THE CANADIAN EMPLOYMENT MARKET?

IS THERE TRUTH TO THE QUESTION..

FROM THE UBC CHRONICLE

THEY COINED A NAME for it in the mid-Sixties—brain drain.

Pictures were painted of the all-important little grey cells seeping across the borders of Canada, drawn inexorably by jobs, money, prestige. And with them, according to the theory, went Canada's hopes for excellence in academic, technological and research establishments.

Universities lamented the lack of good Canadian talent for academic positions. Industry claimed it could find few Canadians to take its top research posts. And governments said they were hard-pressed to lure Canadians into research jobs. As little as three years ago, prominent university spokesmen were calling for some way of plugging the brain drain, or of stepping up Canadian production of students with advanced degrees.

Suddenly, amid all this, an embarrassing fact appeared. Canadians who were graduating with masters and, particularly, doctorate degrees were having difficulty finding suitable jobs. And with scarcely a "Whoops-excuse me," brain drain became brain gain, and people began worrying about finding jobs for the sudden oversupply of products from Canadian graduate schools.

The problem is a difficult one to define. There are few PhD holders without jobs. There are few who have a job in a field unrelated to their field of study. There are few statistics on the subject and even fewer reliable ones.

And claims made by those emphasizing the seriousness of the job situation have a habit of disintegrating under close scrutiny. The PhD physicist forced into a job selling stocks and bonds says he is an investment counsellor because he wants to be one, has always been interested in the field. The mathematics PhD who is a longshoreman turns out to have graduated in 1964, before jobs became scarcer.

All that seems definite is that there are fewer jobs available now than there were a few years ago. Where a PhD student might have had four or five job offers by January of his graduating year then, now he feels lucky to have had one offer by June.

Professor William Armstrong, Deputy President of UBC and a member of the Science Council of Canada, outlines the situation: "On a short-term basis, the problem is certainly serious. Many PhD graduates have been unable to get work in the exact field in which they have been trained. The Science Council has looked carefully and can't find any PhDs without jobs. But some have gone into jobs in administration and management, not research."

A year ago, the Graduate Student Association of UBC produced a brief, subsequently presented to the Association of Universities and Colleges of Canada, on the employment situation for UBC advanced graduates. It reported that PhD graduates in some disciplines, notably botany, chemistry, mathematics, some fields of engineering, physics, physiology and zoology, were having difficulty finding good positions. Other disciplines admitted a lack of present difficulties, but anticipated some in the years ahead. Still others said there was little likelihood in the foreseeable future that the supply of advanced graduates would exceed the demand.

One complicating factor for any comprehensive survey of job-student ratios is the fact that many students with PhDs are now taking extended post-doctoral fellowships. A few years ago, a one year post-doc was

A former Vancouver Sun reporter, Mrs. Rosemary Neering, BA'67, is now a free-lance writer.

not uncommon; now it frequently stretches to two, three, or even four years, as the holder looks around for a suitable job. These people show up neither in student statistics nor in employment statistics; instead, they form a holding pool of highly trained people.

There are three main causes for whatever tightening that has occurred in the job situation. First is the massive increase in the number of students with advanced degrees graduating from Canadian universities. National estimates place the

annual increase in graduate school enrolment at about 20 per cent; in the sciences and in engineering, it has been higher. A recent survey shows that Canada is now producing more PhDs per capita in science and engineering than is the United States. A National Research Council survey suggests that the number of doctoral graduates being produced in these two fields will very soon exceed the number of jobs available for them.

The second factor involves the world situation. Canada is not alone among developed countries in producing more advanced graduates than she can use. And the tightening job situation in other countries, particularly in Britain and the United States, coupled with what seems to be an attractive political and environmental situation in Canada, is attracting in droves people with advanced degrees from other countries. Figures on the proportion of university faculty from outside Canada vary, but they all suggest a substantial number of immigrants are taking positions in the academic world. The universities have been the main employers of Canadians with advanced degrees.

Added to this is the fact that Canadian graduate schools are attracting a large number of foreign students, primarily from Asiatic countries. Figures suggest close to half of the graduate students at Canadian universities are non-Canadian. While some of these students return to their home country after completing their graduate work, many do not. Instead, they remain in Canada, although they often have a harder time getting a job than native Canadians.

The third factor is the nature of the Canadian employment market itself. There are three basic career opportunities for students graduating with advanced degrees: the universities, government, and industry. All three of these markets have slowed the increase in their hiring over the past few years. The universities have been hit by money problems that have slowed expansion and cut increases in staff. Many provinces are relying more and more on regional colleges which demand a different type of credentials than do universities. The federal government in its battle against inflation and spiralling costs has put a freeze on the hiring of new staff, limiting itself to the replacement of departing staff. And Canadian industry, never famous for spending vast amounts on research, has more and more tended to hire people with bachelors' degrees.

These obvious causes of the problem suggest some obvious solutions. Cut back on graduate school enrolment. Cut out foreign immigration if it deprives Canadians of jobs. Lift the government freeze on jobs. Give the universities more money to expand. Force industry to spend a specific proportion of its profits on research.

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