



## A Solid Year for University Research

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Fiscal 2003 was a solid year for university research funding. Research income at Canada's Top 50 Research Universities rose by a healthy 12.6%. Most encouraging was a rebound in income from Non-corporate sources such as Individuals and Charitable Foundations. Non-corporate income leapt by 21.8% over Fiscal 2002, which was admittedly a mediocre year produced by a soft economy. Non-corporate income now accounts for 15% of the total. Within the Non-corporate category, Individual donations jumped by 32.9%, while Foundation funding grew by 36.1%.

Universities continued to be heavily dependent on government largesse. Income from Government sources increased over Fiscal 2002 by 13.4% and accounted for 69% of all sponsored income in 2003. Foreign government funding was another bright spot. It increased by 18.6%.

Once again, mirroring a soft environment for investments, research income from Investments and Endowments continued to drop, declining by -56.0% from 2002. This was on top of a -49.8% decline in Fiscal 2002.

Disappointingly, income from Corporate sources increased by only 5.0%, which mirrored a difficult year for research spending in the corporate sector. Research spending at Canada's Top 100 Corporate R&D Spenders fell by 5.1%. Still, private firms contributed 14% of total university research income, down slightly from 15% last year.

The 1990s saw the start of a renaissance in university research funding. Since 1999 research income has leapt 92%. The happy coincidence of rising revenues and declining budget deficits made it possible for governments to consider major renewed investments in research at Canadian universities. Large and small institutions all benefited.

With a growing portion of government research funding going to the life and health sciences, smaller institutions will need to develop strategies to capture their share. In Fiscal 2003, research income from the Canadian Institutes of Health Research (CIHR) grew by 19.6%, compared with an increase of 6.1% from the Natural Sciences and Engineering Research Council (NSERC) and 9.4% from the Social Sciences and Humanities Research Council (SSHRC). Larger institutions with medical schools (or in

some cases veterinary schools) are naturally in a better position to benefit from this type of funding, and smaller schools could be left behind.

But nothing in life is free and the "piper" is now playing a different tune – research commercialization. With the federal and provincial governments together spending around \$2.8 billion on university research (2003 figures), they are growing anxious for a larger return on their "investment". Leaving aside the most important return to society – trained personnel – governments want to see new companies, patents, products, exports, and other commercial outcomes from their research investment.

In response, universities have bolstered their commercialization efforts in recent years. As a group they are now earning a "profit" on their commercialization activities. That is, technology commercialization now raises more funds than universities devote to commercializing the research. Until recently that was not the case. Still, expectations are high that even more direct economic benefits will accrue.

One favoured strategy is to foster start-up companies that are based on university research. Universities in Canada have done this very well; they out-perform their cousins in the US and Europe on start-up company formation. But new company formation is fraught with risk; not only is there the risk of the new technology to be considered, but the risk of a start-up company itself. The hope is that a small number of successful start-ups will yield more in the way of economic and social returns than the larger number of unsuccessful ones.

Start-up company formation is fine, but capturing the benefits of university research also requires a strong receptor capacity among existing companies. It is these companies that perform research themselves, and that are in the best position to incorporate university research and turn it into profitable products and processes. Weakness in the company sector will inevitably diminish the prospects for university research commercialization. And, as indicated by the small increase in corporate funding of university research last year, signs are not encouraging on the receptor capacity front. Moreover, overall corporate research spending declined last year for the second year running. So, while governments are priming the university research pump, the capacity of the corporate sector is not growing apace. To overcome this, universities must build stronger bridges with those companies that perform research.