

Intelligence MEMOS



From: Charles Plant and Kay James

To: The Hon. Navdeep Bains, Minister of Innovation, Science and Economic Development

CC: Anil Anora, Chief Statistician, Statistics Canada

Date: April 5, 2017

Re: **BUSINESS INNOVATION SPENDING MAY BE BIGGER THAN YOU THINK!**

Thanks for all of your work in the recent budget to improve the innovation economy. We're excited to see how we can boost innovation in Canada but fear that criticism of Canadian industry for its lack-lustre innovation effort may be entirely misplaced and the result of the way data on expenditures has been collected.

From 1997 to 2014, Statistics Canada collected data on business R&D spending (BERD) using a definition established by the OECD in 1963. While the rest of the world [had adopted a new definition of innovation](#), Canada kept [using the old one](#). (James, 2012, Plant, 2016)

That old definition is quite limited in scope, described as "institutionally structured R&D in the natural sciences and engineering". This is still the basis of the definition of work that qualifies for support from the Scientific Research and Experimental Development tax credit program (SR&ED).

So, from 1997 until 2014, the reporting instructions given to large R&D performers used this old definition, and for smaller companies the data was taken directly from the SR&ED database. Canadian BERD did not include:

1. Work that draws upon existing knowledge for the development or improvement of materials, products, devices or processes.
2. R&D in the Social Sciences and Humanities.

But other countries included those expenditures in their calculations of BERD so we have been underreporting our BERD spending for many years. We did a small test of the problem of undercounting and found that SR&ED eligible spending equalled 27% of BERD in a small sample of companies. (Plant, 2016) And we know [from other research](#) that public Canadian software companies spend more on R&D relative to revenue (21%) than equivalently sized public American ones (16%).

You also might be wondering why BERD has been declining relative to other countries since around 2001. Well, Canada's decline is in line with shrinkage of the SR&ED program during that period, due to continued tightening of the requirements to qualify as SR&ED and the elimination of previously allowed capital expenditures.

In 2014 changes were made to the instructions for reporting BERD and the way that data is collected but companies we have spoken to are still using the old definition for several reasons:

1. They don't realize a change has been made.
2. They don't understand the difference between definitions.
3. Some are just plain lazy about getting the additional data.
4. For small companies, BERD is still taken directly from the SR&ED database.

It would be helpful for Statistics Canada to revise the way BERD data is collected, to enable more meaningful comparisons with other countries and more realistic assessments of the effectiveness of government support for private-sector R&D. Asking more explicit questions such as "How much R&D did you do that wasn't SR&ED Eligible" could help you figure out true BERD spending.

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