

## **Scientific Research and Experimental Development (SR&ED) Tax Incentive Program**

### **What's Known About the Size and Cost of the SR&ED Program over the Past Decade?**

#### **INTRODUCTION**

**Aggregate "tax assistance" (i.e., tax credits) delivered by the CRA through the SR&ED program has gone down by \$4.2 billion over the six years starting in 2009-2010 through 2014-2015. (For details, see Table 1, attached.)**

**The \$4.2 billion reduction does not include a significant amount of the legislated reduction in the SR&ED incentives announced in the 2012 Budget. This \$500 million a year reduction will come into full effect in 2016-2017 tax year and continue onward. (For details, see page 4.)**

**While the public information on SR&ED is opaque, CATA believes that the SR&ED program has been hit hard by the Canada Revenue Agency (CRA) as we have highlighted over close to a decade.**

**Over the same six-year period, the amount of "tax assistance" provided per claimant dropped dramatically. In 2008-2009, the average "tax assistance" provided was \$227,778 per "claimant". In 2012-2013, the last year for which the number of claimants was included in the CRA's Annual Report to Parliament, the average "tax assistance" had dropped to \$156,522 per "claimant." A reduction in "tax assistance" of \$1.6 billion that would otherwise have been provided, had nothing changed other than the number of claimants. (Table 1, attached.)**

**This significant reduction in "tax assistance" is consistent with what we have been hearing from the community about CRA's restrictive policies and reviews. Is this a result of the CRA's increased focus on compliance?**

**CATA is calling for the creation of a new administrator for the SR&ED program and all tax based incentives, a new Digital Innovation Tax Credit, and a new Innovation Box for the commercialization and export of Canadian innovations.**

**The CRA's total control of the development and application of policy and procedures is too inconsistent and unpredictable for any innovation tax incentive.**

Part I of this paper sets out what we can gather from an analysis of available Canada Revenue Agency (CRA) and Department of Finance Canada public statistics on the SR&ED program. Part II comments on the type of information that would be needed to appropriately evaluate and improve the program.

## PART I

In his 2009 report prepared for the Minister of National Revenue, Paul Daniel Muller indicates that tax credits for both refundable and non-refundable claims in the SR&ED program had grown from \$2.7 billion in 2004-2005 to \$4.1 billion in 2008-2009, a compound annual growth rate (CAGR) of 11.4%.<sup>1</sup>

At this 11.4% compound annual growth rate, assuming other factors remaining stable, it would be expected that SR&ED tax credits would have grown to something in the range of \$4.5 billion the following year, 2009-2010, (\$4.1 billion x 1.114%).<sup>2</sup>

Instead, reported “tax assistance”<sup>3</sup> provided through the SR&ED program dropped sharply by 19.5% in 2009-2010 to \$3.3 billion from \$4.1 billion of “tax assistance” in 2008-2009 – a decrease of \$800 million.

SR&ED “tax assistance” continued in this lower range (between \$3.1 billion and \$3.6 billion) from 2009-2010 up to and including 2014-2015, the last year for which the CRA’s Annual Report to Parliament is available.

As a result, there was an apparent aggregate reduction in SR&ED “tax assistance” post Muller of \$4.2 billion for the six-year period starting in 2009-2010 through 2014-2015. (For details, see Table 1, attached.)

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<sup>1</sup> Paul Daniel Muller, *SR&ED Tax Incentive Program, An Appraisal*, Full Report, 30 November 2009, section 3.3.1. As a consultant to the Minister of National Revenue, Muller prepared this report for the Minister. Go to: [http://www.cata.ca/files/PDF/2014/Muller\\_and\\_CRA\\_Action\\_Plan\\_for\\_Linked-in.pdf](http://www.cata.ca/files/PDF/2014/Muller_and_CRA_Action_Plan_for_Linked-in.pdf).

According to the CRA’s Annual Reports to Parliament: in 2005-2006, SR&ED tax credits dropped to \$1.8 billion; but in 2006-2007, they were more than \$3 billion; and in 2007-2008, more than \$4 billion. Thus, for two years in succession (2007-2008 and 2008-2009), SR&ED tax credits were at a high of \$4 and \$4.1 billion respectively. See: <http://www.cra-arc.gc.ca/gncy/nnnl/menu-eng.html>.)

<sup>2</sup> Furthermore, one might also have expected an increase in SR&ED tax credits in 2009-2010 and subsequent years, because the number of “claimants” provided “tax assistance” increased significantly. In 2009-2010, the number of “claimants” provided “tax assistance” increased to over 21,000 from over 18,000 in 2008-2009 (the last year included in Muller’s report). In 2011-2012, the number of “claimants” provided “tax assistance” increased further to 23,000, and remained at 23,000 in 2012 -2013. For 2013-2014 and for 2014-2015, the number of claims “processed” was reported rather than the number of claimants provided “tax assistance” in the year. The number of claims “processed” in 2013-2014 was 24,794 claims. In 2014-2015, the number of claims “processed” was 24,302 claims.

Source: CRA Annual Reports to Parliament. See: <http://www.cra-arc.gc.ca/gncy/nnnl/menu-eng.html>.

<sup>3</sup> From year-to-year, the CRA’s Annual Reports to Parliament appear to use the term “tax assistance” interchangeably with the term “tax credits” as the unit of measure for the quantity of SR&ED tax credits provided to claimants through the SR&ED Tax Incentive Program. See: <http://www.cra-arc.gc.ca/gncy/nnnl/menu-eng.html>.

In contrast to the 11.4% compound annual growth rate in tax credits that Muller calculated for the four years from 2004-2005 to 2008-2009, the compound annual growth rate in tax credits for the six years from 2008-2009 to 2014-2015 was a negative 4.6%.

**We have looked at the Department of Finance Canada’s Income Tax Expenditures and Evaluations reports for 2006, 2007, 2008, 2009, and 2010 for the four government fiscal years from 2005-2006 through 2009-2010 to test the hypothesis that something significant changed early on.**

Using the statistics for tax credits “earned and claimed in current year” in the reports, we calculated the year-to-year rate of growth in tax expenditure “estimates” and “projections” from one government fiscal year to the next.<sup>4</sup> (For details, see Table 2, attached.)

Finance appears to have first recognized a decline in growth rate in tax expenditures for tax credits “earned and claimed in current year” around 2008 or 2009. In its 2008 report, Finance dropped the growth rate for government fiscal 2007-2008 by more than 50% from the figure previously reported for fiscal 2007-2008 in its 2007 report.

As well, in the Finance tax expenditures reports for 2006, 2007 and 2008, the growth rate in expenditures for tax credits “earned and claimed in current year” for fiscal 2005-2006 was an average of 10.4%. But, in Finance’s tax expenditures reports for the next two years, 2009 and 2010, the average growth rate for fiscal 2005-2006 was dropped to 4.5% – a decrease of 57%.

The significant downward adjustments in the growth rates for tax credits “earned and claimed in current year” found in Finance’s tax expenditures reports for 2008, 2009, and 2010 for fiscal years 2005-2006 and 2006-2007 argue that something other than the recession was very much in play. Claimants have up to 18 months after a tax year end in which to submit an SR&ED claim and the CRA would need time to do even an initial assessment of claims affected by the recession. The recession appears to have been picked up mainly in the 2009 and 2010 reports for fiscal 2008-2009.

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<sup>4</sup> Department of Finance Canada, Reports on Federal Tax Expenditures: <https://www.fin.gc.ca/purl/taxexp-eng.asp>.

**Note:** in examining these statistics, Finance tax expenditures measure how tax claims impact on government revenues in a specific government fiscal year. Specifically, in the case of this analysis of SR&ED, the expenditure figures we are using measure how SR&ED tax credits “earned and claimed in the current [fiscal] year” impact on government revenues in a specific government fiscal year. CRA statistics measure the claims the CRA processes in a given government fiscal year, including tax credits that are actually earned and/or applied by businesses in other years.

**Was there a deliberate and systematic move by Government to reduce funding of SR&ED “tax assistance” and bring it under control?**

Both CRA and Finance numbers seem to indicate that some time before 2010, the Government or the CRA could have become concerned about the growing impact of the SR&ED program on government expenditures and moved to bring expenditures on SR&ED tax credits under control.

As noted, in his November 30, 2009, report to the Minister of National Revenue, Paul Daniel Muller pointed out that the 11.4% compound annual growth rate in SR&ED tax credits he had calculated for 2004-2005 to 2008-2009 exceeded usual economic benchmarks:

*At 11.4% per year, the SR&ED growth rate is greater than those of the usual benchmarks, such as growth of nominal GDP and growth of federal government spending.<sup>5</sup>*

As noted, the compound annual growth rate in tax credits processed by the CRA for the six years from 2008-2009 to 2014-2015 turned out to be a negative 4.6%. While some of this may reflect the recession, the CRA’s statistics refer to what it is processing, which includes claims for multiple tax years. However, it is clear from the timing of Finance’s downward adjustments to its “estimates” and “projections” for tax credits “earned and claimed in current year” that something occurred to lower Finance’s expectations prior to any major impact of the recession.

Around 2005, SR&ED claimants and practitioners / advisors were reporting that some CRA reviewers were using more restrictive policies and procedures, particularly with regard to eligibility for SR&ED and the standard of documentation required to support claims. Subsequently, the CRA developed and eventually released officially in late 2012 and succeeding years what have been seen to be more restrictive policies and procedures.

The CRA maintains that there has been no change in policy nor its application, except to reflect new jurisprudence. On the other hand, the courts seem to indicate in their decisions that there is significant divergence between some of the CRA’s policies and approaches as presented by the CRA in the cases and what the courts see as appropriate.

**Beyond the implementation of more restrictive CRA policy and procedures, the Government announced in the 2012 Budget that tax expenditures (up to \$500 million a year) would be redirected out of the SR&ED program to other programs.**

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<sup>5</sup> Paul Daniel Muller, consultant to the Minister of National Revenue, report prepared for the Minister of National Revenue: *SR&ED Tax Incentive Program, An Appraisal*, Full Report, 30 November 2009, section 3.3.1: [http://www.cata.ca/files/PDF/2014/Muller\\_and\\_CRA\\_Action\\_Plan\\_for\\_Linked-in.pdf](http://www.cata.ca/files/PDF/2014/Muller_and_CRA_Action_Plan_for_Linked-in.pdf).

The 2012 Budget explained that the tax expenditures slated for redirection to other programs would be generated by reducing certain SR&ED incentives previously available to claimants.<sup>6</sup> The report of the Jenkins Expert Panel on Federal Support to R&D was stated to have been the basis for these reductions in the program.

The reductions in SR&ED incentives were to be implemented gradually over three tax years and fully implemented in tax year 2016-2017 and following years:

2013-2014	\$ 35 million
2014-2015	\$315 million
2015-2016	\$480 million
2016-2017	\$500 million. <sup>7</sup>

These legislative reductions in SR&ED “tax assistance” do not start showing up immediately to any significant degree in CRA statistics, because, as noted, claimants have up to 18 months after a tax year end in which to submit an SR&ED claim.

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<sup>6</sup> 2012 Budget, Annex 4, page 69 and pages 410-413: <http://www.budget.gc.ca/2012/plan/pdf/Plan2012-eng.pdf>.

<sup>7</sup> Source: 2012 Budget, Annex 4, Table A4.1, “Cost of Proposed Tax and Tariff Measures, Fiscal Costs (millions of dollars), page 380: <http://www.budget.gc.ca/2012/plan/pdf/Plan2012-eng.pdf>.

## What does the SR&ED program cost?

### *Costs to the public sector*

The CRA's 2014-2015 Annual Report to Parliament, the most recent available, indicates that the SR&ED program "provided more than \$3.1 billion in tax assistance in support of industrial research and development."<sup>8</sup>

In addition, in 2014-2015, the CRA would have spent something in the region of at least \$72 million a year, i.e., 599 FTEs, (full-time equivalent employees), to administer the program. This represents an increase of 37% in spending on human resources over a period of nine years. In 2005-2006, the CRA spent \$52.7 million and 520 FTEs were involved in the program.<sup>9</sup>

### *Costs to the private sector*

We continue to hear comments about the increased complexity of the program and the resultant costs to its users due to:

- the increasing need to use specialist / advisory services and the related costs. The CRA has recently started collecting data on the cost to claimants of advisory services and should be encouraged to provide some public analysis of this. Currently, we have been told by the CRA that 60% to 70% of claimants use these services. Changes in the nature of the program and the CRA's expectations; and the recent shift in the mix of refundable *versus* non-refundable claimants mean the few previously published analyses on the cost of the program to the private sector should be considered out-of-date, unless shown to be otherwise.

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<sup>8</sup> The CRA's 2014-2015 Annual Report to Parliament, page 58: <http://www.cra-arc.gc.ca/gncy/nnnl/2014-2015/ar-2014-15-eng.pdf>.

<sup>9</sup> Per the CRA's 2013-2014 Annual Report to Parliament, page 41, the CRA planned to spend \$72 million, i.e., 599 FTEs (full-time equivalents), but actually spent \$74 million, i.e., 617 FTEs (full-time equivalents) in the SR&ED program: <http://www.cra-arc.gc.ca/gncy/nnnl/2013-2014/ar-2013-14-eng.pdf>.

In 2005-2006, the CRA spent \$52.7 million (520 FTEs) on the program. See CRA Annual Report to Parliament, 2005-2006, page 38: [http://www.cra-arc.gc.ca/gncy/nnnl/2005-2006/prfrmnc-e/r\\_2005-06-eng.pdf](http://www.cra-arc.gc.ca/gncy/nnnl/2005-2006/prfrmnc-e/r_2005-06-eng.pdf).

In the 2008 Budget, the Government announced that an additional \$10 million annually was being invested in the SR&ED program, page 87: <http://www.budget.gc.ca/2008/pdf/plan-eng.pdf>.

In the 2013 Budget, resourcing for the program was increased by an additional \$20 million over two years: \$10 million in 2013-2014 and \$10 million in 2014-2015. See 2013 Budget, pages 202 and 203; and Chapter 3.4, Table 3.4.1, page 210. Go to: <http://www.budget.gc.ca/2013/doc/plan/budget2013-eng.pdf>.

- internal costs to the business, including, for example, time spent by senior managers, team leaders and developers in developing, supporting, and defending claims, as well as the cost of developing special and effective record keeping systems.

To our knowledge, the cost of obtaining bridge funding for SR&ED projects while companies wait for the CRA's approval of their claims has not been addressed. Companies are reporting that, for accounting purposes, the uncertainty around the SR&ED tax credits require them to discount the value of the credits. Some companies may not book the credits until they are actually approved by the CRA.

In the extreme, some businesses say that they will simply not use the SR&ED program, because of the uncertainty associated with the credits.

## **PART II**

### **Some other issues for which publicly available statistics on and analyses of the SR&ED program do not provide useful information are:**

- what is currently being supported by the SR&ED program, e.g., what sectors, what kinds of projects;
- dollar value and quantity of claims received by type of project, sector, provincially, and the amount that is ultimately determined to be eligible for SR&ED incentives after any reviews have been finalized;
- dollar value and number of problematic claims by issue, by sector, and by province. Likewise, similar information on Notices of Objection and/or appeals to court;
- the kind and size of the projects which the program supports in the Canadian Information and Communications Technologies (ICT) sector;
- the number and nature of retrospective claims filed each year and analyses of whether the SR&ED incentives are merely a windfall after-the-fact for claimants that succeed in obtaining the SR&ED tax credits; and to what extent the credits actually incentivize businesses to undertake innovation they otherwise would not have undertaken;
- whether the administration of the program is as effective as it could be and where are improvements possible. (Note: the Jenkins Expert Panel on Federal Support to R&D addressed legislative improvements, but not administrative improvements.)
- whether what the program delivers is important to the Canadian economy, e.g., return on investment to Canadian taxpayers and to what extent the program influences international investments of the private sector.

Today, we are spending \$3 plus billion a year with little public knowledge of how well the SR&ED program is working and where it could be better. There are some macroeconomic studies that suggest that improvements are possible.<sup>10</sup> But there is a dearth of microeconomic studies which could address how the program could be made to function much more effectively and be more competitive with the programs in other nations.

We know we could do better. The UK has leveraged a similarly focused system to dramatically improve its R&D / innovation ranking. And, whereas the “UK also tracks and regularly reports on the effectiveness of its R&D tax credit program”, the CRA does not. A comparative study of the UK’s Research & Development (R&D) tax relief scheme found that:

*For every £1 of R&D tax credit given out, £1.53 to £2.35 of additional expenditure by UK firms is generated....<sup>11</sup>*

This compares to just \$1.38 in Canada.<sup>12</sup>

We have highlighted previously that: “In Canada, the CRA doesn’t support the SR&ED program as an incentive. They focus on recovery although they deny it.... In the UK, effective administration has been the key and the goal is to improve the country. The changes in their administration worked and the change is impressive. Companies have to explain upfront what they want to do with their program.” (<http://www.bctechnology.com/news/2016/9/1/CATA-Calls-for-Changes-to-SR&ED-Program-and-Looks-to-UK-to-Improve-Administration.cfm>.)

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<sup>10</sup> John Lester. "Benefit-Cost Analysis of R & D Support Programs." *Canadian Tax Journal* (2012) 60:4, 793-836. Online at [file:///C:/Users/J.R%20Roberts/Downloads/12ctj4\\_lester%20\(2\).pdf](file:///C:/Users/J.R%20Roberts/Downloads/12ctj4_lester%20(2).pdf).

Mark Parsons. "Rewarding Innovation: Improving Federal Tax Support for Business R&D in Canada." *Commentary Fiscal and Tax Competitiveness*. No. 334, September 2011. C.D. Howe Institute. Online at [https://www.cdhowe.org/sites/default/files/attachments/research\\_papers/mixed/Commentary\\_334\\_0.pdf](https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_334_0.pdf)

<sup>11</sup> Brian Cookson, RDP Associates Inc. *A comparison of the administration of the Canadian Scientific Research and Experimental Development (SR&ED) tax credit program*. May 20, 2016, First page, “Purpose”. Go to: [http://catalogca.ca/files/PDF/CDA\\_UK\\_R\\_D\\_Tax\\_Credits.pdf](http://catalogca.ca/files/PDF/CDA_UK_R_D_Tax_Credits.pdf).

<sup>12</sup> Mark Parsons. "Rewarding Innovation: Improving Federal Tax Support for Business R&D in Canada." *Commentary Fiscal and Tax Competitiveness*. No. 334, September 2011, page 9. C.D. Howe Institute. Online at [https://www.cdhowe.org/sites/default/files/attachments/research\\_papers/mixed/Commentary\\_334\\_0.pdf](https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_334_0.pdf).

CATAAlliance, November 22, 2016

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**TABLE 1**

**“Tax Assistance” (Tax Credits) Provided Through the SR&ED Tax Incentive Program**

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
<b>“Tax assistance”</b> (in billions) <sup>13</sup>	\$4	\$4.1	\$3.3	\$3.5	\$3.6	\$3.6	\$3.3	\$3.1
<b>Decrease from 2008-2009</b> (in billions)	N/A	N/A	\$ .8	\$ .6	\$ .5	\$ .5	\$ .8	\$1.0
<b>Number of “claimants” provided “tax assistance”</b>	18,000	18,000	21,000	21,000	23,000	23,000	-	-
<b>Number of claims processed</b>	-	-	-	-	28,993	28,140	24,794	24,302
<b>“Identified non-compliance”</b> (in billions)	Not reported until 2010-11.			\$ .473	\$ .424	\$ .404	\$ .534	\$ .394
<b>“Tax assistance” provided per “claimant”</b>	\$227,778				\$156,522			

**Total decrease in SR&ED “tax assistance” funding, 2009-2010 to and including 2014-2015 = \$ 4.2 billion**  
(.8 + .6 + .5 + .5 + .8 + 1.0).

**Over the same six-year period, the amount of “tax assistance” provided per claimant dropped dramatically.** In 2008-2009, the average “tax assistance” provided was \$227,778 per “claimant”. In 2012-2013, the last year for which the number of claimants was included in the CRA’s Annual Report to Parliament, the average “tax assistance” had dropped to \$156,522 per “claimant.” This amounts to a reduction in “tax assistance” of \$1.6 billion that would otherwise have been provided, had nothing changed other than the number of claimants. [ (\$227,778 - \$156,522) x 23,000 claimants ] = \$1.6 billion.

**Sources:** See page 11 following.

<sup>13</sup> The CRA’s Annual Reports to Parliament appear to use the term “tax assistance” interchangeably with the term “tax credits” as the unit of measure for the quantity of SR&ED incentives the CRA provides to claimants through the SR&ED Tax Incentive Program.

**Sources used for TABLE 1, on page 10, “Tax Assistance” (Tax Credits) Provided Through the SR&ED Tax Incentive Program**

**Sources:**

CRA's Annual Reports to Parliament 2007-2008 to 2014-2015, except for 2008-2009: <http://www.cra-arc.gc.ca/gncy/nnnl/menu-eng.html>.

The figure of \$4.1 billion for 2008-2009 is from the report by Paul Daniel Muller, consultant to the Minister of National Revenue, prepared for the Minister: *SR&ED Tax Incentive Program, An Appraisal*, Full Report, 30 November 2009, section 3.3.1:  
[http://www.cata.ca/files/PDF/2014/Muller and CRA Action Plan for Linked-in.pdf](http://www.cata.ca/files/PDF/2014/Muller_and_CRA_Action_Plan_for_Linked-in.pdf) .

The last year covered by Muller’s report is 2008-2009. Muller’s figure of \$4.1 billion is used rather than the \$4 billion figure in the CRA’s 2008-2009 Annual Report to Parliament, because Muller would have had access to detailed data not published in the CRA’s Annual Report to Parliament and he used this figure of \$4.1 in calculating the compound annual growth rate also included in his report.

TABLE 2

Department of Finance Canada – Rate of Growth in Tax Expenditures for SR&ED Tax Credits  
 “Earned and Claimed in the Year”<sup>14</sup>

<u>Report Date</u>	Government Fiscal Years				
	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
2006	8.3%	8.4%	8.5%	*	*
2007	11.9%	12.1%	11.9%	11.8%	*
2008	11.1%	11.3%	5.8%	5.7%	5.7%
2009	4.8%	2.5%	4.3%	-4.5%	*
2010	4.1%	4.0%	9.0%	-4.5%	6.1%

Some Comments

Finance appears to have first recognized a decline in growth rate in tax expenditures for tax credits “earned and claimed in current year” around 2008 or 2009. In its 2008 report, Finance dropped the growth rate for government fiscal 2007-2008 by more than 50% from the figure previously reported for fiscal 2007-2008 in its 2007 report:  $(11.9\% - 5.8\%) = 51\%$ .

$$11.9\%$$

As well, in the Finance tax expenditures reports for 2006, 2007 and 2008, the growth rate in expenditures for tax credits “earned and claimed in current year” for fiscal 2005-2006 was an average of 10.4%. But, in Finance’s tax expenditures reports for the next two years, 2009 and 2010, the average growth rate for fiscal 2005-2006 was dropped to 4.5% – a decrease of 57%:  $\frac{8.3\% + 11.9\% + 11.1\%}{3} = 10.4\%$  average **minus**  $\frac{4.8\% + 4.1\%}{2} = 4.5\%$

$$3$$

$$2$$

$$\text{Decrease in average} = 5.9\% \text{ . } \% \text{ decrease in average} = \frac{5.9\%}{10.4\%} = 57\%.$$

<sup>14</sup> Source: Department of Finance Canada, Reports on Federal Tax Expenditures: <https://www.fin.gc.ca/purl/taxexp-eng.asp>. Using the statistics for SR&ED tax credits “earned and claimed in current year” in the reports, we calculated the year-to-year rate of growth in tax expenditure “estimates” and “projections” from one government fiscal year to the next.

\* Not included in report of that year.