

The Incremental Economic Impact of BC's IBA Program

Synopsis: The incremental economic impacts of BC's International Business Assistance (IBA) Program are estimated as an additional 1,300 to 1,500 jobs. The Program is also estimated to generate additional provincial revenues that are more than equal to the fiscal cost of the Program.

Vancouver's global stature among international financial centres has increased dramatically in recent years, improving from 35th in 2008 to 17th in the most recent rankings.¹ Vancouver's strong performance is due to many factors – the relatively strong Canadian economy, the rising global reputation of the City, and the existence of business support programs such as the International Business Activity (IBA) Program.

The IBA Program provides registered companies with refunds of Provincial income tax on qualifying international financial operations, as well as on other sector-specific activities (e.g. digital media) of strategic importance to the Province. There are many anecdotal examples of how firms' decisions to locate, retain, or increase their BC-based business operations have been significantly influenced by the IBA Program. However, because firms' location and expansion decisions are based on multiple considerations, any assessment of the incremental impacts of the Program based on individual companies or industry subsectors is highly subjective.

Nevertheless, the incremental impact of the IBA Program on business activity levels is important, since it represents the Province's return on its investment. What are the Program's overall incremental impacts?

To address this issue, we first estimated the main component of the IBA Program's incremental impact by analyzing the Program's GDP growth rate between 2004 (when the Program was significantly redesigned) and 2007 (the most recent year for which relevant Statistics Canada data are available), relative to the GDP growth rate of the balance of the BC Financial Services industry. We also removed the impact of four larger firms (two banks, two bio-tech firms) whose pattern of claims was not representative of their incremental impact, to avoid misstating the IBA Program impacts. We found that the IBA's GDP growth rate (averaging 14.5% per year) was significantly higher than that of the balance of BC's BC Financial Services sector (averaging 7.9% per year). As a result, the IBA Program's GDP growth between 2004 and 2007 was \$107 million higher than if it had grown only at the rate of the balance of BC's Financial Services industry. Translated to jobs and government revenues, the additional economic activity (direct, indirect, induced), between 2004 and 2007 alone, is estimated as 1,149 incremental jobs, plus \$12.3 million in additional provincial tax revenues.

The second component of the IBA Program's incremental impact is its influence on the growth rate of the rest of the BC Financial Services sector – recognizing that the location and growth of international financial services is generally intertwined with that of domestic financial services. Growth in the BC Financial Services sector has been stronger than that of the rest of Canada over the past decade. Attributing 5% to 10% of BC's stronger performance between 2001 and 2007 to the IBA Program, the IBA's incremental impact on the rest of the BC financial services sector is estimated as \$17 million to \$34 million in additional direct GDP -- resulting in 184 to 367 incremental jobs (direct, indirect, induced), and \$2.0 million to \$3.9 million in additional provincial tax revenues.

Combining these two impacts, the estimated incremental impact of the IBA program in 2007 is approximately 1,300 to 1,500 additional jobs. Fiscally, the estimated additional tax revenues generated by the Province (\$12.3 million from IBA-eligible activity, plus \$2.0 million to \$3.9 million from increased other Financial Services industry) is more than the Program's fiscal cost of \$13.3 million in 2007.

¹ Source: Z/Yen, Global Financial Centres Index (GFCI). The Financial Times described the Global Financial Centres Index (GFCI) ranking as "a keenly watched barometer within banking and financial services that combines objective factors such as office rental rates, airport satisfaction and transport with surveys of financial professionals."

(INTERNATIONAL FINANCIAL CENTRE BRITISH COLUMBIA)

INCREMENTAL IMPACTS OF IBA PROGRAM

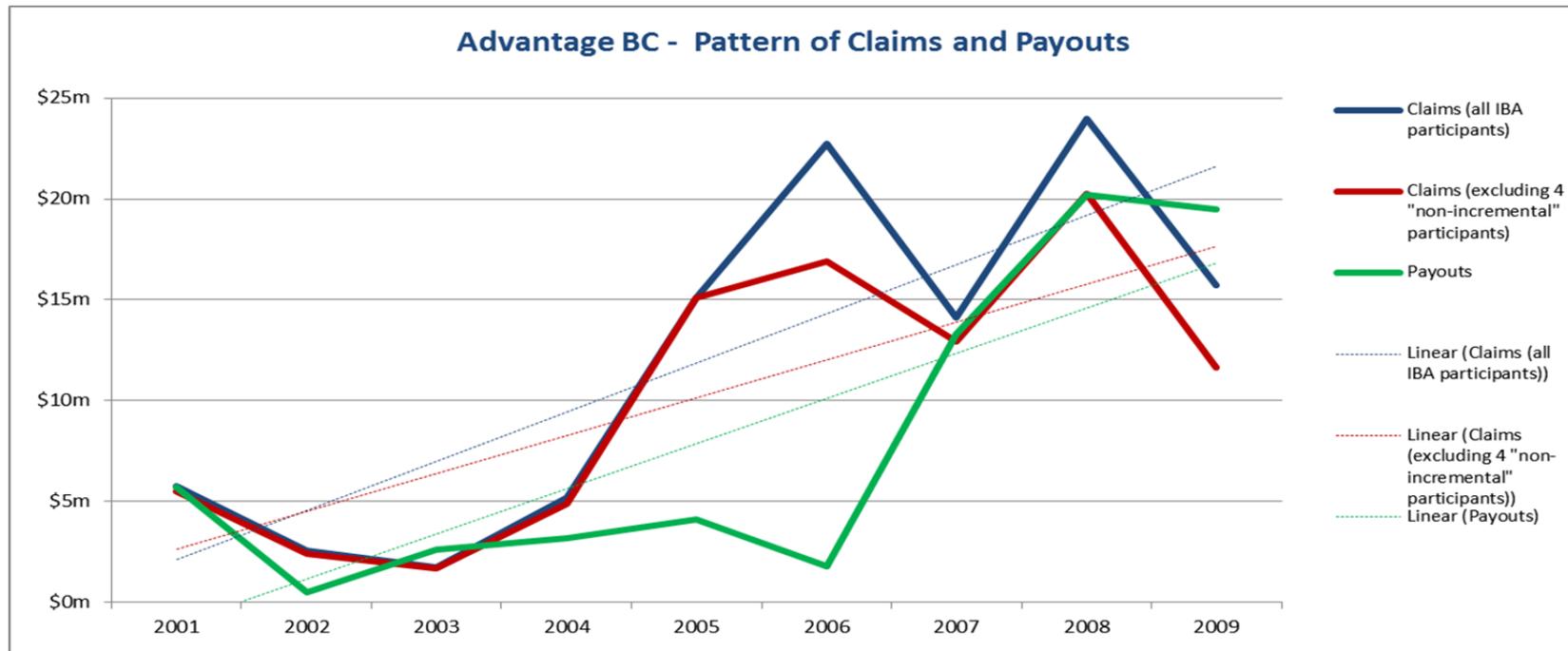
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1. Overview - IBA claims & payment trends

IBA Program (\$m)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total	% of claims
Claims (all IBA participants) ¹	5.7	2.5	1.8	5.2	15.1	22.7	14.1	24.0	15.7	106.9	
Claims (excluding 4 "non-incremental" participants) ²	5.5	2.4	1.7	4.9	15.1	16.9	12.9	20.3	11.6	91.3	85%
Payouts ³	5.7	0.5	2.6	3.2	4.1	1.8	13.3	20.2	19.5	70.9	66%



The above chart illustrates the significant increase in the size of the IBA Program since 2001. Claims submitted (per IFCBC records) are shown both including and excluding four "non-incremental" IFCBC participants (see footnote 2). The chart also illustrates how payments significantly lagged claims during the mid-2000s -- for this reason, the claim submission data (net of the four "non-incremental" participants) is considered the best indicator of trends in Program size.

¹ Information supplied by International Financial Centre BC. Claims are based on figures reported to the IFC BC for use in computing Participation Assessment fees paid in the subsequent year.

² There are four significant "non-incremental" participants, whose levels of BC-based operations are assessed as not significantly dependent on IBA's existence. These four firms are excluded from the following analysis of incremental IBA impacts (conservative approach). The levels of other IBA participants' BC-based operations are assessed as being least partly dependent on the IBA Program

³ BC Public Accounts; Ministry of Finance. This document details payments made by the province on a cash basis. Payouts are not equal to claims because claims do not reflect losses carried back from subsequent years, audit adjustments, and other timing differences; furthermore, payouts are on a cash basis and do not necessarily correspond to the year of the claim.

2. Methodology for estimating IBA's incremental impacts

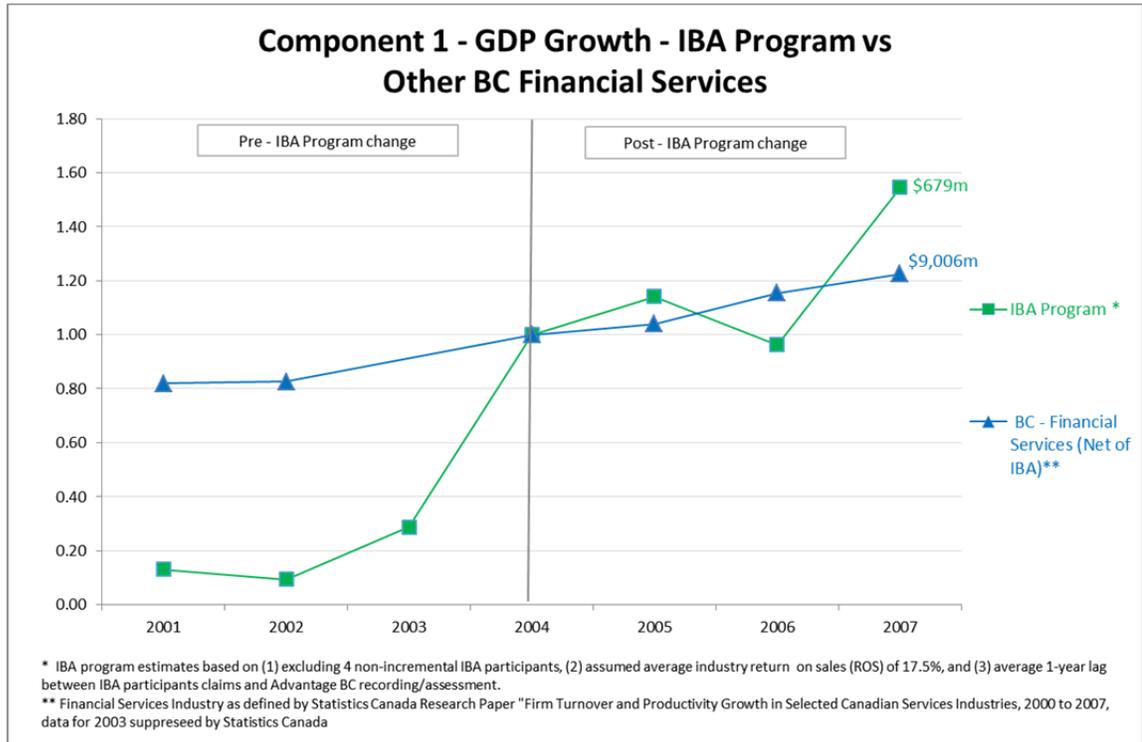
The methodology for assessing the incremental economic impacts of the IBA program has been developed jointly by the International Financial Centre of BC and MMK Consulting. Considerations in developing the methodology were as follows:

- **“Bottom-up” methodology, based on subjective incrementality assessments (not used)** – Individual firm location and expansion decisions are typically based on many factors – workforce availability/quality/cost, proximity to existing and target markets, availability of professional services, income and non-income based taxes, personal costs, quality of life, and other factors. While we are aware of many anecdotal examples of how the IBA Program has influenced firms' relocation decisions, we also recognize that there is no defensible basis for “building up”, on a case-by-case or subsector-by-subsector basis, an estimate of IBA's incremental impact. The results of such a “bottom-up” approach are bound to be highly subjective.
- **“Top-down” methodology, using Statistics Canada data** – Accordingly, our methodology is based on an objective “top-down” analysis of the differences in actual growth rates among industry sectors, as reported by Statistics Canada. The impacts are analyzed in two components:
 - **Component 1 – IBA growth rates, relative to domestic BC Financial Services** – the primary component of estimated incremental impacts is based on the higher growth rate of IBA Program participants, relative to the growth rate of the rest of the BC Financial Services sector -- after removing the impacts of four significant “non-incremental” IBA participants (two financial institutions, two bio-tech firms).¹
 - **Component 2 – BC domestic Financial Services growth rates, relative to other BC service industries and Canadian financial/other service industries** – this secondary component is based on the IBA Program's contribution to the higher growth rates of the domestic BC Financial Services sector, relative to the growth rates for (1) other BC service sectors and (2) Canadian Financial Services and other service sectors.

¹ As illustrated by the linear best-fit lines in the Section 1, Overview chart, the impact of having included these four firms would be to increase the estimated growth rate (and thus economic impacts) of the IBA Program.

3. Component 1 – IBA Program growth, relative to other BC Financial Services

The relative growth rates of the IBA Program and the rest of the BC Financial Services sector, between 2001 and 2007¹, is illustrated in the following chart.



This chart illustrates how the growth rate of IBA Program activities in BC since 2001 has far outpaced that of other BC Financial Services.

The significant growth of the Program between 2003 and 2004 is likely due in large measure to the significant redesign of the Program in 2004. Accordingly, the following analysis of Component 1 impacts is based on growth between 2004 and 2007 (the most recent year for which Statistic Canada data are available).

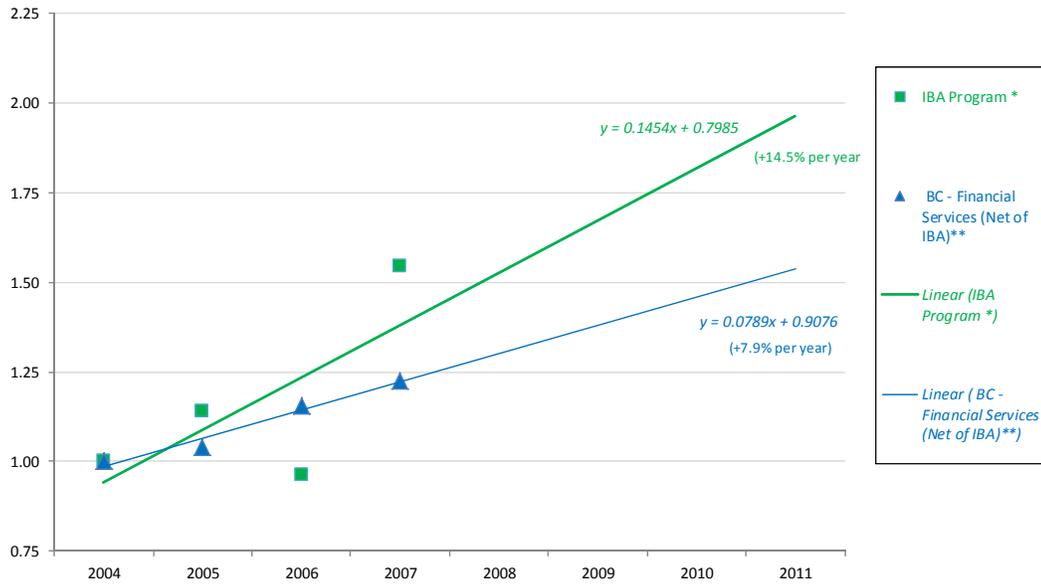
The following chart (overleaf) illustrates the "best-fit" lines for the data. Between 2004 and 2007, the IBA program's annual growth rate averaged 14.5%, versus 7.9% for the rest of the BC Financial Services sector.

As calculated in the table overleaf, the IBA Program's direct GDP growth between 2004 and 2007 is estimated as \$107 million higher than if it had grown only at the rate of the rest of BC's Financial Services industry. Direct economic output is estimated as \$175 million higher.

Translated to jobs and government revenues, the additional economic activity (direct, indirect, induced), between 2004 and 2007 alone, is estimated as 1,149 incremental jobs, plus \$12.3 million in additional provincial tax revenues.

¹ 2007 is the most recent year for which Statistics Canada data are available.

Component 1 - Best Fit Line of GDP Growth, Indexed to 2004



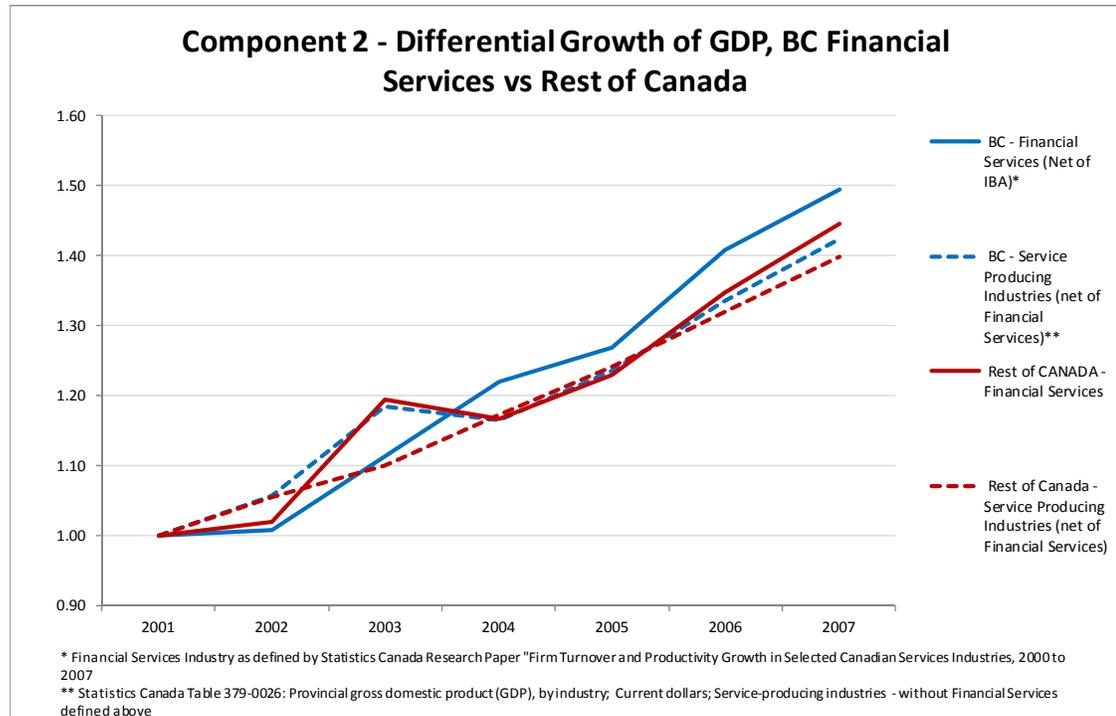
* IBA program estimates based on (1) excluding 4 non-incremental IBA participants, (2) assumed average industry return on sales (ROS) of 17.5%, and (3) average 1-year lag between IBA participants claims and Advantage BC recording/assessment.
 ** Financial Services Industry as defined by Statistics Canada Research Paper "Firm Turnover and Productivity Growth in Selected Canadian Services Industries, 2000 to 2007, data for 2003 suppressed by Statistics Canada

Incremental Impacts, 2004-2007	BC Financial Services	IBA Program
IBA Claimants, Reported Income, 2004 (\$m) ¹		\$126
Estimated Total Revenue, 2004 (\$m)		\$721 ²
Estimated Direct GDP, 2004 (\$m)	\$7,352 ³	\$440 ⁴
Normalized Annual Growth Rate, 2004-2007 ⁵	7.9%	14.5%
Normalized Direct GDP, 2007(\$m) ⁵	\$9,235	\$660
IBA GDP if Growing at BC Financial Services Rate, 2007 (\$m) ⁵		<u>\$553</u>
Incremental IBA GDP, Relative to Financial Services, 2007 (\$m)		<u>\$107</u>
Incremental Direct Output, 2007 (\$m) ⁶		\$175
Incremental jobs, 2007 (direct, indirect, induced) ⁷		1,149
Incremental provincial revenues, 2007 (\$m) ⁸		\$12.3

1. Based on 2005 IFC BC Assessments (assume average 1-year lag between activity and assessment).
2. Assuming average 17.5% return on sales for firms with IBA eligible income. (Number is understated in that it does not capture revenues for firms with negative income in 2004.)
3. Source, Statistics Canada, Financial Services Industry as defined by Research Paper "Firm Turnover and Productivity Growth in Selected Canadian Services Industries, 2000 to 2007. Table 381-0015: Provincial gross domestic product (GDP), by sector and NAICS
4. Based on Direct GDP being 61% of total revenue (as per BC Input-Output Model multipliers)
5. Based on "best-fit" analysis of 2004-2007 results
6. Divide by 0.61, as per BCIOM multipliers
7. 6.55/\$ million of direct output – 2.38 direct, 3.11 indirect, 1.06 induced – representing 418 direct jobs, 546 indirect jobs, and 185 induced jobs.
8. 7.0% of direct output – 4.6% from direct activities 1.3% from indirect activities, 1.1% from induced activities

4. Component 2 – Domestic BC Financial Services growth, relative to other BC/Canadian services

The "Component 2" impacts of the IBA Program, in increasing the growth rates of domestic BC Financial Services, are illustrated as follows (See Appendix for detailed calculations.)



	2001	2007
BC Financial Services GDP ¹ , net of IBA GDP(\$m)	\$6,024	\$9,006
Amount by which BC's Financial Service industry has outpaced the growth of other BC Service industries (\$m) ²		\$342
Estimated IBA contribution to increased growth ³		5% - 10%
Estimated incremental direct GDP attributed to from IBA (\$m)		\$17 - \$34
Incremental Direct Output ² (\$m) ⁴		\$28 - \$56
Incremental Jobs ⁵		184 - 367
Incremental Provincial Revenues ((\$m) ⁶		\$2.0 - \$3.9

1. Source: Statistics Canada, reduced by estimated IBA GDP. *Note: 2001 is used as the base year for this analysis, rather than 2004 (as for Component 1 analysis), to avoid the distorting effect of the anomalous downward-trending results for Canada between 2003 and 2004 (see previous chart)*

2. See Appendix for detailed calculation

3. Range as estimated by the IFC BC.

4. Divide by 0.61, as per BCIOM multipliers

5. 6.55/\$ million of direct output – 2.38 direct, 3.11 indirect, 1.06 induced - representing 67-133 direct jobs, 87-174 indirect jobs, and 30-60 induced jobs.

6. 7.0% of direct output – 4.6% from direct activities 1.3% from indirect activities, 1.1% from induced activities

5. Summary - Incremental Impacts of IBA Program

The estimated incremental impacts of the IBA program are summarized as follows:

	Component 1	Component 2	Total
	IBA Program, vs. BC Financial services	BC Financial Services, vs. Canadian Financial & Other Services	
Incremental direct GDP resulting from IBA (\$m)	\$107	\$17 - \$34	\$124 - \$141
Incremental Direct Output (\$m)	\$175	\$28 - \$56	\$203 - \$231
Incremental jobs (direct, indirect, induced)	1,149	184 - 367	1,333 - 1,516
Incremental provincial revenues (\$m)	\$12.3	\$2.0 - \$3.9	\$14.3 - \$16.2

These estimates reflect a number of methodological approaches, where alternate assumptions would increase or reduce the estimated impacts.

On one hand, these figures may tend to overstate the economic impacts, in that they do not allow for the possibility that some types of IBA Program activities (e.g. factoring) may have lower than the average economic impacts for the BC financial services industry.

On the other hand, the figures may also tend to understate the impacts, in that the analysis does not include any allowances for the Component 1 incremental impacts between prior to 2004 --- nor does it include any allowances for the incremental impacts of the IBA Program between 2008 and 2011 (because of the lack of Statistics Canada data).

On balance, this analysis is considered to represent a conservative estimate of the IBA Program's actual economic impacts.

Based on the preceding analysis, our conclusions are that:

- The IBA Program's incremental impact was to increase BC's GCP by \$124 million to \$141 million between 2001 and 2007 (the latest year for which Statistics Canada data are available).
- The Program has resulted in approximately 1,300 – 1,500 incremental jobs in BC.
- From a fiscal perspective, the estimated incremental provincial tax revenues for 2007 (\$14.3 million to \$16.2 million) are more than equal to the provincial payments (\$13.3 million) made by the Province to IBA Program participants in 2007.

Appendix - Detailed calculation of “Component 2”

Differential growth in the Financial Services Industry, relative to all services-producing industries

	GDP (\$m)		% growth	% by which BC's GDP growth has outpaced Rest of Canada	Differential growth of BC's Financial Services Industry, relative to all service-producing industries	
	2001	2007				
All Services-producing industries¹						
■ BC	\$84,256	\$120,001	42.4%	2.6%		
■ Rest of Canada	\$541,850	\$757,423	39.8%			
Financial services industry²				8.3%	5.7%	\$342
■ BC	\$6,024	\$9,201	52.7%			
■ Rest of Canada	\$54,451	\$78,649	44.4%			

1. Statistics Canada Table 379-0026: Provincial gross domestic product (GDP), by industry; Current dollars; Service-producing industries

2. Financial Services Industry as defined by Statistics Canada Research Paper "Firm Turnover and Productivity Growth in Selected Canadian Services Industries, 2000 to 2007."

Table 381-0015: Provincial gross domestic product (GDP), by sector and NAICS

Note - 2007 is the most recent year for which Statistics Canada data are available.

Incremental impacts

Portion of Differential Growth in Financial Services considered attributable to the IBA Program, versus other factors	5.0%	10.0%
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Incremental GDP/Output/Employment

Direct GDP (\$m)	\$17	\$34
Direct Output (+ 61%, as per BC Stats*) (\$m)	\$28	\$56
Direct jobs (2.38/\$m of output)*	67	133
Indirect jobs (3.11 jobs/\$m of output)*	87	174
Total Direct & Indirect jobs created	154	307
Induced jobs (1.06 jobs/\$m of output - safety net assumption)*	30	59
Total Direct, Indirect, & Induced jobs	183	367

*Using BC Stats Multipliers for Finance, Insurance, real estate, renting and leasing

Provincial revenues as a percent of direct total output (4.6% direct, 1.3% indirect, 1.1% induced, as per BC Stats)	7.0%	7.0%
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Additional provincial revenues from incremental economic activity (\$m)	\$1.96	\$3.92
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