# Longitudinal Economic Impact Study of the Canada Small Business Financing (CSBF) Program 

December 2004

submitted to:<br>Industry Canada<br>9th floor East Tower, 235 Queen St.<br>Ottawa, Ontario<br>K1A 0H5

submitted by:
Statistics Canada
Small Business and Special Surveys Division
Jean Talon Building, $10^{\text {th }}$ Floor
Ottawa, Ontario
K1A 0T6

Statistics Statistique
Canada Canada

This report has been authored by Klaus Kostenbauer.
Klaus Kostenbauer (613) 951-2904; klaus.kostenbauer@statcan.ca

Mr. Klaus Kostenbauer is the senior analyst in the Small Business Program of the SBSSD. Mr Kostenbauer has a Master's degree in Economics and experience in statistical and econometric analysis, including the estimation of mixed cross-sectional and time-series models. He has written and published a number of statistical articles involving qualitative and quantitative analysis with the aim of providing recommendations and direction to statistical programs. Furthermore, Mr. Kostenbauer is familiar and experienced with the practical aspects and processes of conducting surveys.

Acknowledgements
First and foremost, Gilles Paré from SBSS provided on-going invaluable guidance and direction. In addition, the author acknowledges the support of Industry Canada's analysts, Jean Clark, Brad Bélanger and Jeremy Porzuczek for their support and inputs throughout the development of this study, as well as Statistics Canada methodology support offered from Peter Wright and technical support offered from Serge Bourret and Joanne Linekar from the Record linkage section of Small Business and Special Surveys Division (SBSS) without which this project would not have been possible.

## TABLE OF CONTENTS

## Introduction

Statement of Hypotheses ..... 8
Presentation of Study Findings and Discussion ..... 9
Reasons for differences between results from regression analysis and the output tables ..... 19
Further research to help enhance measures of the CSBF Program ..... 21
Bibliography ..... 22
Appendix A: Selection of Variables and Definitions ..... 23
Appendix B - Data availability including GIFI data ..... 27
Appendix C - Methodology overview ..... 29
Appendix D - Regression analysis - methodology ..... 30
Appendix E - Data risks and quality ..... 32
Appendix F - Files linked, content description and process ..... 36
Appendix G - Methodology Report on the Creation of the Comparison group ..... 39
Appendix H - Study and Comparison groups table outputs ..... 43
Appendix I-Regression tables ..... 44

## Introduction

The Small Business and Special Surveys Division (SBSSD) of Statistics Canada is pleased to present to Industry Canada this report as a result of generating statistical data to help analyse the economic impact of the Canada Small Business Financing (CSBF) Program.

This study has produced new statistical information to provide objective measures that can be used to assess the impact of the CSBF program on small businesses in Canada. One of the primary objectives of the study was to provide key performance indicators on employment and wages. In addition, the study provides data on SME borrower economic performance, revenue generation and revenue to the Crown. To enable Industry Canada to assess the impact of the program on these measures, businesses taking part in the CSBF have been compared to those that are not part of the program. The results presented are aimed at supporting the evaluation of the Canada Small Business Financing Program in the realm of the statutory report to Parliament.

## Background

The Canada Small Business Financing (CSBF) Program, formerly the Small Business Loans (SBL) Program, is delivered by approximately 1,500 financial service providers across the country. Under the program, financial service providers can make loans of up to $\$ 250,000$, over a maximum lending term of 10 years, to SMEs. Lenders are responsible for credit decisions and administering loans. The Government of Canada pays lenders up to 85 percent of any eligible loss incurred on loans that have defaulted, after the lender has taken the steps to recover any associated security to reduce the amount outstanding.

Industry Canada has started a broad program evaluation to assess the CSBF for the April 1999 to March 2004 period. This study produces data to assist Industry Canada in evaluating the effectiveness of the program and to measure economic impacts of CSBF loans by comparing CSBF borrowers to non-CSBF borrowers. Financial forecasts carried out by the department have determined that the Program will not achieve cost recovery, a program objective, for loans made during the 1999-2004 period. The Program is statutorily obligated to table a report in Parliament within 15 sitting days of March 31, 2005 on the operation of the Canada Small Business Financing Act.

Objective for Industry Canada
To evaluate the performance of SMEs benefiting from the Canada Small Business Financing Program (CSBF) and assess the economic impacts of the Program.

The objective of this study is to follow CSBF borrowers longitudinally both prior to and after reception of their loan. In order to provide a measure of economic benefits, borrowers need to be tracked over a period of time since impacts are not often immediately observable. Although the loans program has existed in one form or another since 1961, a unique identifier - the Goods and Services Tax number (GST number) - is available on the Industry Canada file only since 1996. This research, however, is limited to SMEs that have been part of the loans program between April 1999 and March 2000, as it was felt this cohort fairly represents the CSBF universe. The GST number was the key matching variable between the CSBF file and Statistics Canada files.

A second study objective is to examine the impact of the loan program on revenues, profits over time and firm survival. To do this, the same SMEs used in the Longitudinal Employment Analysis Program (LEAP) file will be linked to T2 data using the Business Number (BN number) for 1998 to 2002.

## Statement of Hypotheses

Statistics Canada is providing Industry Canada with data tables and statistical analyses designed to draw conclusions on the validity of the following hypotheses:

1) CSBF loans promote employment growth.
2) CSBF loans promote higher business survival rates.
3) CSBF loans promote sales growth.
4) CSBF loans promote higher government tax receipts (corporate and GST).
5) CSBF loans promote improved profit ratios (i.e., Return on Assets).
6) CSBF loans promote improved operating efficiency (Sales/Assets, Sales/Employee).

## STUDY FINDINGS AND DISCUSSION

## Introduction

The data tables and regression results are designed to allow Industry Canada to thoroughly analyse the rich database. Statistics Canada is limited by its mandate to the analysis of facts. We applied, however, rigorous financial ratio analysis and furthermore routinely checked if specific industrial patterns or firm size patterns applied to account for specific findings.

Because Statistics Canada is limited by its mandate to the analysis of facts, it will in several cases be up to Industry Canada to explain the findings further. For example, the findings for Hypothesis \#6 showed that the sales/employee ratios are persistently lower for CSBF borrowers than for the comparison group across a broad cross-section of industries. A large number of different economic explanations can account for phenomena such as these, but it is outside the mandate of Statistics Canada to favour one explanation over another.

The advantage of the output tables is that they are intuitive and readily understood and interpreted by analysts regardless of specialty and extent of training in quantitative methods.

The advantage of regression analysis is that it allows for statistical rigour and precision that cannot be matched by the data tables. Regression analysis is ideally suited to isolate the effect of the loan program from the multitude of variables in the study. The very strength of regression analysis is its ability to isolate cause and effect despite variability in the data. Throughout the statistical analysis, it was found that the regression results are remarkably stable and robust

The ensuing discussion of the study hypotheses and their support by the data will, therefore, make more reference to the regression results than to the tables. The output tables often show similar results, but in cases where the data are conflicting, the regression results are deemed more reliable. Reasons for differences between table and regression results are addressed in the section of the report titled, "Reasons for differences between results from the regression analysis and the output tables".

## Hypothesis \#1: CSBF loans promote employment growth

Facts: Across the spectrum of industries, business size and regions, the evidence suggests that CSBF borrowers had higher employment growth than non-CSBF borrowers. On average, growth for CSBF borrowers was 10\% higher for the period 1999-2001 and $20 \%$ higher for the period 1998-2001. This "core group" of CSBF borrower businesses - those that were alive between 1998 and 2001, and where reliable data including employment counts are available (3,723 businesses) - increased employment from 32,307 employees in 1998 by 9197 to 41,504 in 2001. By contrast, the 3,723 businesses in the comparison group employed 34,392 people in 1998 and 36,435 in 2001, an increase of 2,043 employees. In total, therefore, CSBF borrowers created net employment of 7154 full-time equivalent positions more than the comparison group.

Regressions showed that the Atlantic Provinces were the only region that failed to show higher employment growth for CSBF borrowers than for non-CSBF borrowers. Further, Agricultural Support Industries and Information/Cultural businesses were the only industries - out of 17 non-financial 2-digit NAICS - that did not show higher employment growth for CSBF borrowers.

## Discussion

What explanations could account for the fact that CSBF borrowers in the Atlantic Provinces and in the Agricultural support industries + Information/Cultural sectors failed to show higher employment growth than non-CSBF borrowers? For this phenomenon to be understood, it will be useful to be explicit about the assumptions underlying the hypothesis that increased financing promotes employment growth. Every business in the CSBF group received a loan. Businesses use financing to increase profits, which is achieved either by; a) increasing output, or b) lowering costs by modernizing production equipment. In the case of (a), sales and employment will increase. In the case of (b), the loan may not increase the level of employment - it may even decrease it as the business rationalizes production and substitutes capital for labour. In this case, sales may not increase; however, economic theory suggests that the increased labour productivity should show up in the data as higher average annual earnings. Third, the increased profitability should show up in the Return on Equity results.

## Sales

Regression results suggest that sales growth for CSBF borrowers was 20\% higher for the period 1998-2001 than for non-CSBF borrowers; however, CSBF borrowers in the Atlantic Provinces and Agriculture showed no higher sales growth than non-CSBF borrowers.

## Average annual earnings

From the Output tables it is seen that Average Annual Earnings in the Atlantic Provinces increased by $7.1 \%$ from 1998-2001, a result which is materially different from the comparison group, where Average Annual Earnings increased by only $2.1 \%$ (Table 1). Because the measure of Average Annual earnings appears volatile in the table for the comparison group, a regression was run to confirm results. Regression results showed that average annual earnings among CSBF borrowers in the Atlantic Provinces were $6.4 \%$ higher than for the comparison group, compared to $1.6 \%$ for Canada as a whole. As for the two industries failing to show employment growth, only Agriculture had enough observations to conduct a statistical test with confidence. Regression analysis showed that average annual earnings increased by $2.4 \%$ more than for the comparison group; that is, by a third more than Canada as a whole.

Return on Equity
CSBF borrowers boosted Return on Equity by 3.2\% in the period 1999-2001 compared to the comparison group for the all-Canada aggregate, but by a full $6.2 \%$ in Atlantic Canada and $7.5 \%$ in Agriculture.

Therefore, the evidence is consistent with an interpretation that loans in Atlantic Canada could have been used to modernize production processes.

Conclusions: On average, growth for CSBF borrowers was 10\% higher for the period 1999-2001 and 20\% higher for the period 1998-2001. This "core group" of CSBF borrower businesses, i.e. those that were alive between 1998 and 2001 (3,723 businesses), generated net employment growth of 7,154 full-time equivalent positions more than the comparison group.

In addition and as shown above, Hypothesis \#1 implicitly assumes that most CSBF borrowers will make use of loans not solely to modernize production processes and raise labour productivity, but that most loans will be used to increase the size and scope of operations, which in turn promotes employment growth. Hypothesis \#1 is supported by the evidence across a broad spectrum of industries, business size groups and regions. The regressions found no instances where the CSBF group generated less employment growth than the comparison group. For the few cases where employment growth was indistinguishable between the two groups, the evidence is consistent with an interpretation that loans were used to modernize the production process and raise labour productivity.

## Hypothesis \#2: CSBF loans promote higher business survival rates

Facts: Small businesses with fewer than 5 employees that became CSBF borrowers had materially higher survival rates than the comparison group (Output table 7). About two-thirds to three-quarters of CSBF borrowers were still alive in 2001, which compares to $60 \%$ for the comparison group. For businesses with 519 employees, however, survival rates were approximately 80-90\% for both groups. No conclusions were drawn about the remaining employment size groups due to the small number of observations.

## Addendum

An authoritative Statistics Canada article discusses the prevalence and reasons for Small Business Failure rates: John Baldwin et al., Failure Rates for New Canadian Firms: New Perspectives on Entry and Exit, Statistics Canada, 2000.

Pertinent points directly taken from the article are:

1) $77 \%$ of new business start-ups survive their first year of operation, $50 \%$ survive for three years, and 20\% for ten years.
2) Survival rates after ten years of operation are the highest in wholesale trade (27\%), manufacturing (26\%). New firms in the accommodation, food and beverage industry have some of the lowest survival rates (15\% after ten years).
3) If the costs of entry are high - due, for example, to the existence of sunk costs - fewer firms can be expected to enter the industry. As a result, fewer new firms can be expected to fail. As a corollary, new firms in industries with relatively large firm sizes are less likely to fail than those in industries with smaller size characteristics.
4) Firms that are large relative to the industry first-year average stand a much better chance of surviving than those that are small relative to this average. Large new firms make more substantial investments in the entry process, and the initial higher stock of assets cushion the business against early failure and thus allows for more time to gain market experience ("honeymoon effect"). Many suboptimal scale firms enter the marketplace - those that do not address their size disadvantages are likely to fail; those that do grow and obtain minimum efficiency scale are apt to survive.
5) New start-ups benefit from industry structures that are more concentrated. Presumably the higher margins earned in these industries increase the chances of survival.
6) Businesses that enter the market during times of good macroeconomic conditions have lower failure rates.

## Hypothesis \#3: CSBF loans promote sales growth

Facts: Regressions focused on the group of CSBF borrowers that were alive between 1998 and 2002 and that had reliable data available (3,673 businesses). For this group, sales growth was 13\% higher than for non-CSBF borrowers for the period 1999-2001. Similarly, sales growth for CSBF borrowers was 20\% higher for the period 1998-2001, and 43\% higher for the period 1998-2002, than for the comparison group. In no industry, region or business size group was there an instance where sales increased by more in the comparison group than in the CSBF group. The smallest CSBF borrowing businesses (1-4 employees) benefited the most, increasing sales by $51 \%$ for the period 1998-2002, followed by those with 5-19 employees (37.4\%) and businesses with 20-49 employees (36\%).

These 3,673 CSBF borrowers increased sales from $\$ 2.3$ Billion in 1998 by $\$ 2.0$ Billion to $\$ 4.3$ Billion in 2002. By contrast, the 3,673 businesses in the comparison group increased sales from $\$ 2.8$ Billion in 1998 by only $\$ 0.6$ Billion to $\$ 3.4$ Billion in 2002. In total, therefore, CSBF borrowers generated net sales growth of $\$ 1.4$ Billion over and above that achieved by the comparison group.

## Discussion

While higher sales growth among CSBF borrowers is strongly supported by the evidence, an important economic issue is: did the sales lead to higher profits? If profits increased together with sales growth, then businesses used CSBF loans to finance projects that were economically meaningful and created "value added". Conversely, if CSBF loans were used to finance projects that generated additional costs that exceeded the value of additional sales, then projects financed by CSBF loans would have been unprofitable, and "destroyed value" in the economy. Costs can exceed revenues during the start-up phase of a project, but it would be surprising if lead times exceeded 2-3 years for most industries. Since businesses in this study received a CSBF loan in the April 1999 to March 2000 period, the higher sales growth CSBF borrowers experienced, compared to non-CSBF borrowers, should have led to higher profits and, therefore, higher value added, by 2002. To answer the question whether or not this occurred, three points are considered when examining the evidence from the data:

1) If sales growth was followed by increases in operating profits, the evidence would suggest that CSBF loans create economic value.
2) If sales growth was followed by a fall in operating profit at the broad aggregate levels, the evidence could be interpreted that CSBF loans create significant "adverse selection" problems. ${ }^{1}$
${ }^{1}$ "Adverse selection" could occur if credit-worthy businesses with sound business plans were easily able to obtain loans at a reasonable interest rate from lending institutions without applying for the CSBF program, and only
3) If sales growth went hand-in-hand with an unchanged level of operating profit, it is inconclusive whether or not CSBF loans create economic value.

This study found no instance except one where operating profits decreased for any CSBF size group, industry or region when compared to non-CSBF borrowers. ${ }^{2}$ The evidence, therefore, soundly rejects a proposition that the loan program created adverse selection problems. Evidence suggests that growth in operating profits was higher than for non-CSBF borrowers for a large number of industries (NAICS 23,32,41,48,49,53,56,72,81). Growth in operating profits for CSBF borrowers was statistically indistinguishable from that of the comparison group for NAICS 31,33,44,54,51,52,71,62. No particular pattern that explained these industrial differences was apparent.

Conclusion: There is strong evidence that CSBF borrowers increased sales substantially more than the comparison group. Sales growth was 43\% higher than for non-CSBF borrowers for the period 1998-2002, with net sales \$1.6 Billion higher for the study group compared to non-CSBF borrowers. Furthermore, sales growth created value added in the economy, as operating profits rose, on average, by $\$ 13,500$ more for CSBF borrowers than for nonCSBF borrowers, for the period 1998-2002. In addition, the alternative hypothesis that the loan program created adverse selection problems is soundly rejected by the data.

## Addendum:

We attempted to test which loan categories were most strongly correlated with sales growth. The loan categories are; a) purchase or improvements of real property; b) leasehold improvements; c) equipment; d) software. Regression coefficients and error terms were however found to be highly unstable due to severe multicollinearity issues and heteroscedastically distributed error terms. Small changes in model specification changed the regression outcomes materially. Various model specifications were tried and rejected. Similarly, it was tested how the term length of the loan was correlated to sales growth. Again, however, regression results were unstable.
credit-unworthy businesses without sound business plans would apply for and receive CSBF loans from lending institutions who have most of their lending risk removed by the government's share of the loan loss.
${ }^{2}$ The exception is NAICS 11 - agricultural support activities.

## Hypothesis \#4-CSBF loans promote higher government tax receipts

Facts: The data tables show that CSBF borrowers increased net GST remittances from $\$ 9,470$ per business in 1998 by $28.7 \%$ to $\$ 12,190$ in 2002. By contrast, the comparison group increased net GST remittances from \$9,420 per business by $6.2 \%$ to \$10,000 in 2002.

Discussion: Corporate Income tax remittances. The "current income tax" and "deferred income tax" fields on GIFI files contain large and unexpected numbers of missing values and other data quality issues. (Please refer to Appendix E for details) that could not be sufficiently corrected during the time frame of this study. Therefore, no confident conclusions about the remittance of income taxes can be provided at this time. It should be mentioned that all other GIFI information (sales, assets, etc.) is complete. For the data quality of these data, please refer to Appendix E of this report.

Conclusion: CSBF borrowers increased net GST remittances by a materially higher margin than non-CSBF borrowers. This result is consistent with the hypothesis. No reliable conclusions are presently possible on corporate income tax remittances.

## Hypothesis \#5: CSBF loans promote improved profit ratios (i.e., Return on Assets)

Facts: Return on Assets dropped by 1.2 percentage points for CSBF borrowers for the period 1998-2002 compared to non-CSBF borrowers. ${ }^{3}$ Return on Assets dropped for about half the industries, although three (Information and Cultural Industries / Arts, Entertainment and Recreation / Other Services) showed increases in Return on Assets when compared to non-CSBF borrowers.

## Discussion

It will be useful to be explicit about the assumptions underlying the hypothesis that increased financing will promote improved profit ratios.

First, it is not an intrinsic goal for any business to maximise its Return on Assets. Often an increase in business profits will be achieved by allowing the Return on Assets to fall. This is because business investment decisions are made by evaluating the expected return of a project against the cost of financing that project (which is equal to the firm's cost of capital). For example, if the cost of capital was $8 \%$, and a project was expected to earn $10 \%$, then an investment is profitable and will take place. If the same business earned a Return on Assets of $20 \%$ on all its business projects hitherto, and the new project earns 10\%, it is easy to see that the average Return on Assets will fall. Conversely, if the business earned hitherto $9 \%$ on its equity, than with the addition of the new project, which earns 10\%, average Return on Assets will rise.

It thus can be seen that the hypothesis that CSBF borrowers will have an increased Return on Assets is a strong one. It assumes that businesses will use the loan to finance projects that earn a rate of return that exceeds that of all of its existing projects.

Conclusion: Return on Assets fell for CSBF borrowers when compared to the comparison group, which is inconsistent with the hypothesis. It needs to be stressed, however, that a higher Return on Assets is not an intrinsic goal for any business. In the discussion of Hypothesis \#2 it was shown that CSBF borrowers increased operating profits more than non-CSBF borrowers following the loan. If the Return of Assets had increased also, then businesses would have used the loan for projects that earned a higher rate of return than the average of all its existing projects. This strong hypothesis is rejected, however, as stated, business profits increased for the CSBF borrowers compared to non-CSBF borrowers.

[^0]Addendum: Profitability can also be measured using the concept of "Return on Equity". Return on Equity by itself cannot, however, answer the question as to whether the loan boosted the profitability of the business. This is because profits are earned on the firm's capital base, not on equity alone. A firm's capital consists of equity+debt. Receiving a CSBF loan boosts debt, but not equity. That is, the loan increases the financial leverage of the firm. To answer the question whether business profitability has increased, it is important to look at Return on Equity in context to changes in the debt ratios of businesses. If evidence suggests that the debt ratio - defined as the proportion of the firm's capital that is debt rather than equity - stayed constant after receiving the loan, then the CSBF loan would have been followed by equity injections into the business so that the overall financial leverage stayed the same. In that case, growth in Return on Equity would indeed indicate that the business had invested the proceeds of the loan in projects that earned a return in excess of the average of all its existing projects.

The alternative (and more direct) measure is to look at the Return on Assets. Assets are equal to Liability+Equity; therefore an increase in business liability as a result of the CSBF loan also increases its assets. The Return on Assets measures how effectively a business is using its capital directly.

CSBF borrowers boosted Return on Equity by 3.2 percentage points (1999-2001) and 2.4 percentage points (1998-2002) when compared to the comparison group. No industry, region or revenue size group showed a decrease in Return on Equity when compared to the comparison group; however, only for about half the industries increases in Return on Equity were of statistical significance. The evidence suggests that businesses in the study group have had no change in the business debt ratio compared to the comparison group after receiving the loan; suggesting that loan injections were followed by increases in equity also. On that measure, the stronger growth in Return on Equity by CSBF borrowers suggests that the loans triggered profitability gains; i.e. that the loans were used for projects that earned a higher return on capital than what the business had experienced in the past - on average by 4.2 percentage points higher than the comparison group. As concluded above, however, the direct measure of business profitability, Return on Assets, does not support this conclusion. In addition, the generally insignificant gross margin growth of CSBF borrowers as compared to non-CSBF borrowers, are additional evidence that CSBF loans have not increased business profitability. Some of these contradictory results are probably caused by quality issues related to the GIFI database. Appendix "E" includes a discussion on data quality issues with GIFI data. Given a choice between a direct measure of profitability (Return on Assets) and indirect measures (Return on Equity together with the debt ratio), the direct measure was used to answer the hypothesis, as is usual in scientific enquiry.

## Hypothesis \#6: CSBF loans promote improved operating efficiency.

Facts: The sales/asset ratio and the sales/employee ratio are persistently lower for CSBF borrowers than for the comparison group across a broad cross-section of industries. This is inconsistent with the study hypothesis. There are very few instances where the ratios improved when compared to the non-CSBF borrower group.

## Discussion

The observation that the Sales/Asset ratio had fallen is an interesting finding. The Sales/Asset ratio is a measure of the capital intensity of a business, and, despite demonstrated employment growth (Hypothesis \#1), a higher ratio would be consistent with an increased capital intensity of CSBF businesses. It was postulated that therefore the capital/labour ratio could have been rising for the CSBF group. A specialized regression equation, however, rejected that hypothesis. It is currently unclear why these ratios behave the way they do, unless one is inclined to accept an explanation of long lead times. It is theoretically possible that operating efficiency ratios take longer to show up in the data than employment growth, sales growth, profit growth and even profitability growth.

Conclusion: the hypothesis that CSBF loans promote improved operating efficiency ratios is rejected by the data. There are very few instances where the ratios improved when compared to the non-CSBF borrower group.

## Reasons For Differences Between Results From The Regression Analysis And The Output Tables

The CSBF and comparison groups were used in two ways to test the study hypotheses:

1) Regression analysis
2) Comparative tables

The regression methodology is described below. The data tables were developed in coordination with the client to ensure consistency in presentation for both the Study group and the comparison group. The summary tables (appendices H and I ) display employment changes of the CSBF borrowers by industry groupings, business revenue size, and age of business. The structure follows a standard format. Information is shown for each variable of interest and year.

The comparative tables and the regressions often show qualitatively the same results. In cases where they don't, this is because

1) The regressions include the cohort of businesses that were continuously active from 1998-2002, whereas the tables report results for all businesses that were operating within a given year. That is, the data set that was the basis for the tables include exits, whereas the data set used for regression analysis excludes all exits. For example, the regressions include the 3,700 loan recipients that were continuously active from 19982001, whereas the tables for the CSBF group include 4,867 loan recipients (1998); 9,149 recipients (2000) and 8,840 recipients (2001).
2) Results by employment and revenue size groups: the regressions report results by constant year 2000 employment and revenue size groups, whereas the tables assign businesses to employment and revenue size groups on a dynamic year-by-year basis. Most data have been tabulated using employment size and/or revenue size groups. Thus a business must have been accounted in one or the other employment or revenue size category for a selected year but may have been grouped differently in subsequent years given its change in employment or revenue. This approach limits the analysis when interpreting solely the data from these groupings as shown in the data table to an extent. For instance, a business with 3 employees in 2000 and 6 employees in 2001 will be in the "1-4" size group for regression purposes for both 2000 and 2001, but in the " $5-19$ " size group for the 2001 output tables. In this case, the data in the tables (but not the regressions that are reported by employment size group) could conceivably even show a decrease in average employment for both employment size groups. The reason for this dynamic way of recording revenue and employment size groups is that the tables, developed jointly with Industry Canada, fulfill a profiling function in addition
to testing the study hypotheses. The regressions, however, are solely meant to test the study hypotheses. While the issue of stratum jumpers is real for conducting hypothesis tests purely from table values, evidence shows that the tables remain meaningful for comparison purposes. Thus the table results by revenue and employment size groups are meaningful for comparative purposes as well as for profiling, but when used for comparative purposes must be approached with a measure of caution. It should be noted that this issue does not exist for industry or regional groupings because of the inherent stability of the type of industrial activity and regional presence of businesses.
3) Regression analysis is very well suited to isolate the effect of the loan program from the multitude of variables in the study. The very strength of regression analysis is its ability to isolate cause and effect despite variability in the data. One factor to consider in cases where the tables and regression analysis show different results is that regressions more effectively control for variability in the data.
4) While large outliers were removed from the data set entirely, suspected data errors in the GIFI tax data were removed from the regression data set but not from the table data set. These data errors are not expected to influence table results, but a reversal of results due to data errors cannot be entirely excluded (Appendix E, "Data risks and quality", subsection "Data errors in GIFI").
5) The data tables use "net income" while the regressions use "operating income" as the measure of profits. Similarly, Return on Equity is defined on an operating income basis in the regressions, and on a net income basis in the data tables. This is a direct result of the finding from the data tables that "net income" is very volatile due to the inclusion of extraordinary items. There is enough statistical "noise" in the net income data that interpretability is highly limited. Therefore, the regressions used operating income (which excludes extraordinary items), and as a result, interpretability has been markedly enhanced.
6) The debt ratio has been defined as Debt/Equity in the data tables, and as Debt/(Debt+Equity) in the regressions. That is, the regressions use a definition that expresses debt as a percentage of business capital. Both formulations are widely used in financial analysis. The issue with the simple ratio is that its value will increase exponentially as the denominator becomes small. In these cases interpretability is compromised. Expressing the debt ratio, as is done in the regressions, avoids this problem altogether, and it is felt that it adds stability and interpretability to the data.

## Further research to help enhance measures of the CSBF program

- Extending the study to encompassing 2002 LEAP data, which will become available in February 2005.
- As input data files are not used for statistical purposes - re.: tax data more time could be devoted to data quality - outlier detection; in particular this would allow an answer to Hypothesis \#4 (Do CSBF loans promote higher tax receipts?). Corporate income tax information could be carefully verified. To improve measures of Return on Equity and the debt ratio, time could equally be devoted to carefully verifying the "equity" variable.
- Use of the CSBF file to study in-depth the impact of the loan amount on subsequent business performance. In the current approach, a CSBF borrower was hypothesised to have better business performance than non-CSBF borrowers regardless of the size of the loan, especially when compared to the overall size of the business. The data exists to examine these relationships more closely. Similarly, information exists to delineate more precisely lead-times between the time the loan was received, and the time it took for businesses to improve business performance. The CSBF file contains precise dates when loans were received; however, study results presently do not distinguish between businesses that received the loan at the start of the study period (April 1999) versus those who received the loan at the end of the period (March 2000).
- Bringing in elements of the SME Financing surveys of 2000 and 2004 would enhance the report by offering valuable information on ownership and business characteristics to help further explain entrepreneurship behaviour. A sample of CSBF clients will be reporting under the 2004 SME Financing survey. This survey source would also provide information on businesses who have borrowed from credit suppliers other than the CSBF.

Bibliography
John Baldwin et al., Failure Rates for New Canadian Firms: New Perspectives on Entry and Exit, Statistics Canada, 2000.

Étude des répercussions sur l'emploi de la Loi sur le financement des petites entreprises du Canada, COMPAS Inc. Multi Audience Research Ottawa, Toronto and Winnipeg, March 2002

Incrementality of CSBF program lending, Equinox Management Consultants, December 2003.

Roland Beshiri, Ray D. Bollman and Heather Clemenson and Valerie du Plessis, "Definitions of rural", Statistics Canada, 21-601-MIE-061; December 2002.

## APPENDIX A - Variable selection and Definitions

Retained variables for the study
The list of variables used on the composite file was a result of exchanges with the client and analysts in order to ensure the essential variables to test the hypothesis were kept as well as variables deemed as key to data interpretation or control.

Variables under study and categories
From the Business Register (BR) file

- NAICS code
- Revenue (GBI)
- Region Code
- Urban/Rural (based on Postal code)

From the Longitudinal employment analysis program (LEAP) file

- Payroll Earnings
- Average Annual Earnings
- Average Labour Unit (ALU) (= Payroll Earnings/Average Annual Earnings)
- Number of Businesses
- Industry
- Business size (determined by average labour unit size)

LEAP information is available for all employer businesses and until 2001.
From Tax data files

- Sales
- Revenues
- Profits
- Balance sheet data (Assets, Liabilities, Equity
- Current/Deferred Income Taxes (GIFI Annex 1)
- Net GST ratios.

Essential variables were kept to derive the basic financial ratios such as: gross margin; sales per dollar of assets; dollar of sales per employee, return on Assets; return on equity, liabilities / equity; sales per business.

Final data output or aggregated domains of observations were defined. In determining the following groups, prior analysis of distribution from the study
group was completed. Client in collaboration with contractor helped define the following:

Region; Six standard regions have been defined and presented in the data tables:

- Atlantic,
- Québec,
- Ontario,
- the Prairies;
- British Columbia and;
- the Territories.

Employment size category (Generally, recognized employment size category adapted to small and medium size firms)

- 1 to 4 employees;
- 5 to 19 ;
- 20 to 49 and;
- 50 and more employees.

Revenue sizes

- 0 to 100,000\$;
- 100,001\$ to 250,000\$;
- 250,001\$ to 500,000\$;
- 500,001\$ to 1 million\$;
- 1 million\$ to 2 million\$
- and 2 million\$ to 6 million\$.

These were determined using the study group business distribution from the CSBF. While CSBF borrowers are businesses that had (estimated) less than \$5 million in revenues at the time of the loan application, a ceiling of $\$ 6$ million was used to allow for some growth between the time of the loan application and yearend 2000.

## Business age

The client was active in defining these with STC, reflecting on our ability to produce meaningful statistics where data would permit. The business age categories are, as defined in the CSBF program:

- less than one year;
- 1 year to under 2 years;
- 2 years to under 3 years and;
- more than 3 years


## Industry groups

The industry groups are based on the North American Industry Classification system (NAICS). The groupings were subject to exchanges and input by both the client and STC analysts, to help present the distribution of CSBF clients while ensuring sufficient number of businesses in each category to help support the study results. In addition, groupings used in prior CSBF Program research studies were used for purposes of comparability of results.

Eight Industry groupings were defined:

- Manufacturing (NAICS 31-33);
- Retail Trade (NAICS 44-45);
- Transportation and warehousing (NAICS 48-49);
- Accommodation and Food Services (NAICS 72);
- Professional, Scientific and Technical Services (NAICS 54);
- Agricultural Support Activities, Forestry, Fishing \& Hunting and Construction (NAICS 11,23);

Group A

| NAICS | Industrial Activity |
| :--- | :--- |
| 21 | Mining and Oil and Gas Extraction |
| 22 | Utilities |
| 51 | Information and Cultural Industries |
| 52 | Finance and Insurance |
| 53 | Real Estate and Rental and Leasing |
| 56 | Admin.\& Support, Waste Mgmt and Remediation Serv. |
| 61 | Educational Services |
| 71 | Arts, Entertainment and Recreation |

Group B

| NAICS | Industrial Activity |
| :--- | :--- |
| 41 | Wholesale Trade |
| 55 | Management of Companies and Enterprises |
| 62 | Health Care and Social Assistance |
| 81 | Other Services (except Public Administration) |
| 91 | Public Administration |

## Urban and rural concept

The "Rural and Small Town" (RST) definition of "rural" was used. RST is the non-CMA/CA population. The boundaries separating RST from CMA/CA distinguish populations with less access to markets of larger urban centers from those with greater access. Even though this definition is based on commuter flow thresholds, its application is not limited to labour market issues. In broader terms, commuter flows proxy "access" of a population to services such as
financial institutions (excerpt from "Definitions of rural", 21-601-MIE-061 by Valerie du Plessis, Roland Beshiri, Ray D. Bollman and Heather Clemenson, Dec. 2002 ).

## Financial ratios

The selected financial ratios were calculated and presented in the data tables:

- Gross margin (Gross Profit/ Sales) in \%
- Sales per dollars of assets
- Sales per employees
- Return on equity (Profits / Equity) in \%
- Financial leverage (Liabilities /Equity)

Other request from the client included:

- Number of units per net Profit Gains or Loss - To help calculate average net profit gains/loss.


## Appendix B - Data availability

## 1) Employment data from LEAP

While financial data is currently available until 2002 from GIFI tax returns, one important constraint of this study as outlined in the contract was the lack of availability of more recent data on employment as taken from the Longitudinal employment analysis program (LEAP). The latest year for which data was available was 2001.
This study will use LEAP data up to 2001 as this source is the last reference year for which data is available for longitudinal measures on employment. As employment growth is a key variable in comparing the study group to the comparison group, it is felt that 4 years of observations (1998-2001) should foster sufficient information given the large number of businesses under observation.

## 2) Corporate income tax information from GIFI

This hypothesis could not be reliably tested. Testing hypothesis 6 was found to be severely compromised by tax data availability issues, in addition to data quality issues in the same data. Data were processed and are included in this report, but they should not be relied upon to come to conclusions on hypothesis 6. The data issues were the following:

GIFI corporate income tax information is available from 1999-2002. No records exist for 1998. As for the 1999-2002 period, approximately $30 \%$ of records have no entry for "current tax", and $75 \%$ have no entry for "deferred tax". As both variables also contain numerous values of "0", it cannot be assumed that the missing variables are equal to zero. Furthermore, omission of tax information is not systematic for businesses over the 4 years; a business might have recorded a value for one year but not for another. In addition, in a significant number of records, reported income tax appears to have no relation to income, which leads to questions about data quality for this field (see Appendix E, "Data risks and quality").

It should be mentioned that GIFI data for the remaining Income Statement items and all Balance Sheet items were substantially complete and reliable. Data quality is discussed in Appendix $E$.
3) Businesses operating in more than one Province

For businesses operating in more than one Province a weighting procedure was used to allocate financial data from GIFI, which is only available on a national
basis. The allocator used was "total payroll", which comes from provincial LEAP data.

## 4) Goods and Services Tax (GST)

Ideally, the study could have looked at net GST payments for each business in both the study and the comparison groups. Given that Industry Canada asked for GST information after work for the initial record linkage proposal had been completed, it was felt that the timelines to produce a complete report would not be met. Effectively, this approach would have required the formal submission of a second record linkage proposal that would have jeopardized our ability to produce the report under the existing contract conditions. The following approach was taken:
Companies that remit GST to the Canada Revenue Agency (CRA) must, file a one page return that provides information for the reporting period. Statistics Canada (STC) receives a file on a monthly basis from the CRA which contains the information supplied to them at the time of remittance of the GST amounts owed. Thus, for each business which remitted GST in the month, STC receives the reported sales, total GST collected, input tax credits (ITC) claimed, and net GST remitted, among other variables.
Businesses in the Atlantic Provinces, except Prince Edward Island, report Harmonised Sales Tax (HST remittances). Given that a) the harmonization of the provincial and the federal portion of the tax is close to $100 \%$, b) the very small weight of PEI, c) a HST rate of $15 \%$, and d) a GST rate of $7 \%$, the GST net remittance was estimated by the formula (HST net remittance $\times 7 / 15$ ).

STC assigns to each of these businesses a North American Industrial Classification (NAICS) code, outliers are identified and treated, and missing revenue amounts are imputed. As businesses are allowed to file GST on a monthly, quarterly and annual basis, all records are also converted to calendar months.

The revenues and the net GST remitted were summed according to the defined geographic (urban/rural), industrial, and revenue groups for the years 1998 to 2002. The ratio of net GST remitted to revenue was calculated by region and territorial location (urban / rural), industry, and revenue group.

The estimated net GST remittance of each business was then estimated by the formula, (sales $x$ net remittance ratio).

As businesses do not collect GST on goods they produce for export, for food commodities, or prescription drugs, in some instances the ITC's claimed are greater than the GST collected. This gives rise to a negative amount for the net GST variable. This result can also hold for entire industry groups and so affect the ratios calculated. The net effect on government is zero as these refunds of GST paid by exporting companies represent a refund of GST collected on the value added of upstream companies. In this exercise, negative ratios for all groups were set to zero.

## Appendix C - Methodology Overview

The chosen method for conducting hypothesis testing is to compare specific characteristics of CSBF borrowers with a group of businesses that have not received such loans and track their performance over time in order to measure the impact of the loan program. By definition, all CSBF borrowers have received financing. While it is likely that some non-CSBF borrowers have received other financing, many will not have received financing. It is therefore believed that, as a group, CSBF borrowers will have received more financing than non-CSBF borrowers; and hence differences in business performance can be attributed to the impact of the CSBF loan program. In this context, much of the validity of the statistical comparative tables will depend on keeping all other characteristics between the two groups constant. For example, if "CSBF participation" and "profit ratio" pattern are hypothesised to be correlated, all other variables, such as industry composition, employment size group, must be held constant. The methodology for choosing the comparison group is described in Appendix G. Basically, the methodology matched business characteristics for the following variables:

- Employment size (number of full-time equivalent employees and payroll)
- Industrial activity (8 NAICS groupings)
- Sales
- Size of the Balance Sheet (Assets and Liabilities)
- Operating profit

Subject to the caveats discussed below, Statistics Canada has identified a comparison group that is tightly matched on these criteria. Therefore, comparisons can be made with confidence.

The use of any additional criteria would have materially compromised the quality of the match on employment size and NAICS. A consequence is that the regional tables must be approached with caution because no specific control was possible. Businesses that operate in more than one province posed a particular problem. For example, if a business operates in the Atlantic Provinces, Quebec and Ontario, it is in most cases exceedingly difficult or impossible to find a business for the comparison group that is active in the same three provinces, and, particularly, with the same distribution of business activity among the three provinces.

## Appendix D - Regression analysis - methodology

These regressions have been designed to test the Hypotheses of the Economic Impact Study. These are that the CSBF Program promotes growth and business performance for the following measures: employment, sales, profit, tax revenue; business profitability ratios (Return on Equity, Return on Assets) and other selected business ratios (Sales/Employee, Sales/Assets).

The impact of the loan program was measured for 5 distinct periods:

1. 1999-2001 for all variables;
2. 1998-2001 for all variables except tax (where data was only available starting in 1999);
3. 1999-2002 for all financial variables;
4. 1998-2002 for all financial variables except corporate income tax.

Each regression was of the general form (illustrated by the 1998-2001 study period):

```
Hypothesised variable (2001) \(=\mathrm{a}+\mathrm{b}(\mathrm{CSBF})+\mathrm{c}(\) Hypothesised variable 1998) + \(d(\) employment count 1998) \(+\mathrm{e}(\) sales 1998) +f (operating profits 1998) +g (gross profit 1998) \(+\mathrm{h}(\) assets 1998) \(+\mathrm{i}(\) liability 1998) \(+\mathrm{j}(\) size of payroll 1998) + k(NAICS) + l(urban/rural) + m(geographic region) + error term
```

The variable of interest is the coefficient "b" that corresponds to the "CSBF" variable. This is a dummy variable that takes the value of "1" if the business was a participant in the CSBF Program and a value of " 0 " otherwise. The control variables hold other characteristics between businesses constant in order to isolate the effect of the loan program.

While several of the control variables are exhibiting multicollinearity, they were found to be strictly collinear with one another rather than with the CSBF dummy variable. Further, while regression error terms were found to be heteroscedastic, its extent was found to be relatively benign. Nonetheless, the Huber/White sandwich estimator of variance was used in place of the traditional calculation.

The regression results are remarkably stable and robust. That is, the results do not change materially if the regression model is altered by exclusion or inclusion of some control variables, or using a logarithmic versus a non-logarithmic specification.

Guide for interpreting regression results
The regression tables show the performance of CSBF businesses compared to non-CSBF businesses over the study period. For example, businesses that participated in the loan program had employment growth that was 19.1\% higher than businesses that did not participate in the loan program. Of course, percentage changes can only be meaningfully calculated if variable values are strictly positive (such as sales and employment count). In cases where negative values are possible (such as losses rather than profits), an absolute dollar value has been provided in the regression tables. For example, businesses that participated in the CSBF Program had an operating profit in 2001 that was $\$ 8,300$ higher than for businesses that did not participate in the program, after keeping all other factors constant between the study and the comparison group, including the level of operating profit in 1998.

Regressions that are not statistically significant at the $5 \%$ level or better (Fstatistics) are indicated by a hyphen (-). Estimates of the coefficient corresponding to the CSBF dummy variable are indicated as follows:
a) statistically significant at the $5 \%$ level or better - no specific indication (default);
b) significant at the $10 \%$ level - indicated by the coefficient shown in italics or by an asterisk (*);
c) statistically insignificant at the $10 \%$ level - indicated by an " $x$ ".

## Appendix E-Data risks and quality

The use of several files entails the acceptance of the quality of each input files. While data from Statistics Canada sources were found to be of high quality (LEAP), in this particular study the quality may vary from one reference year to the next because of the inclusion of tax and GIFI data. STC receives a data file for its Tax data program from the CRA. These files are not collected for statistical purposes, and the content of which is not generally thoroughly verified for completeness and consistency. Therefore, it was uncommon in LEAP files, but not uncommon in tax-GIFI data, to find records where variables remained blank for selected reference years or even contained erroneous values.

## Outliers

Throughout the creation of the data tables and regression analysis for both the Study and the Comparison group, many outlier values were identified. Tests were conducted to define when a value was deemed an outlier when compared to all businesses under observations. A decision was taken in coordination with the client to remove extreme values from the tables for reference years 19982002. This activity was not conducted for the 1994-1997 reference years (Table 1 A ), as this data was not specifically being used in the comparative analysis but provided as added value.

Outliers were identified throughout the creation of the data tables. The primary method consisted of visually plotting the distribution of each variable on a scatter diagram and examining - and in many cases removing from the data set isolated values that were far removed from the central tendency. This affected less than one value in a thousand.

## Data errors in GIFI

As stated earlier, the CRA does not verify financial data from GIFI for internal consistency. The financial data for the CSBF and the comparison groups contain an unknown, but significant, number of data errors which do not show up as statistical outliers on a scatter diagram. Therefore, they are time-consuming to identify. To illustrate, if a GIFI record reported sales for 1999 as " $\$ 500$ " and "gross profit" as " $\$ 200,000$ ", then in all likelihood this record contains a data error, because accounting rules dictate that sales cannot be lower than gross profits. (Gross Profits = Sales - Cost of Goods Sold). The record would have to be examined whether the error is in the "sales" field or the "gross profits" field, and this would usually be done by examining the entire record and its history from previous years. Considering there are thousands of records in the data base, a rigorous process of examining each record separately is highly labour
intensive. Fortunately, and for two reasons, such a process is not warranted when values are later aggregated, as they are in the output tables for this study:

1) As long as the erroneous values are small, they do not affect aggregates that contain thousands of records;
2) Erroneous values are likely randomly distributed (both up and down) and, therefore, they can be expected to net out.

By sharp contrast, regression analysis is unforgiving to the impact of erroneous data. The impact is not benign. In regressions, which examine a hypothesized relationship among variables one record at a time, and where regression fit is established by the Ordinary Least Squares method - with error terms squared separately for each record - erroneous data can substantially weaken the precision of the regression model. A process of cleaning up data errors at the start is not to be neglected.

Given the labour intensive process of thorough clean-up described above, a more mechanical approach was used that attempted to identify probable errors efficiently. For each year (1998-2002), data clean-up affected one or more variable for $5 \%$ of all records. During clean-up, variable values were never changed. They - or in severe cases entire records - were deleted.

## Summary:

In summary, values were identified and deleted that had:

1) Less than $\$ 1,000$ in reported sales
2) Less than $\$ 1,000$ in Assets or more than $\$ 10$ Million;
3) Liability $<0$;
4) Sales lower or equal to Gross profit, Operating Profit or Net Profit;
5) Profit $=0$ (Gross profit, Operating profit, Net profit);
6) Gross profit < Operating profit;

Justification for each of the above six exclusions:

Case 1) was examined for several records and mostly found reflecting data errors which became evident when compared to recorded sales values for previous years (missing zeros, etc.). Further, sales $<\$ 1,000$ is suspect for employer businesses. All sales fields with values $<\$ 1,000$ were deleted. There remain 30 businesses with less than $\$ 30,000$ sales on the regression database, which are also suspect but where sales fields were not deleted. (\$30,000 is the usual lower threshold for GST reporting and detailed records being kept on file by Statistics Canada.)

Case 2) was examined for several records and mostly found reflecting data errors in context of other information about the business. These values were deleted. When deleted, the related fields "liability" and "equity" were also frequently deleted in order not to distort Balance Sheet ratios.

Case 3) is an impossibility under standard accounting rules, and Cases 4) and 6) are, while theoretically possible, extremely unlikely and extraordinary accounting events; therefore, these values were deleted.

Case 5) is too coincidental for the number of times it occurred compared to the probability of occurring. A business can have profits or losses across the spectrum from large positive to large negative; that Sales in a fiscal year are exactly equal - to the dollar - as expenses, is an extremely unlikely event. A number of records were examined and mostly found erroneous in the context of other financial information available about the business; therefore, these values were deleted.

In addition, business ratios that are also study hypothesis variables (Return on Equity, Return on Assets) were calculated and deleted in the following cases:

1) Equity $<0$
2) Return on Equity and Return on Assets less than -40\% or higher than $+60 \%$.

Return on Equity measures the implicit "interest rate" that owners earn on their investment in the business. Similarly, Return on Assets measures the implicit "interest rate" that the business earns on its invested capital, which includes debt capital in addition to equity capital. The investment in the business is measured in accounting terms by the standard balance sheet equation, Equity=AssetsLiabilities. Equity can be negative because asset write-downs and accumulated losses can diminish the value of assets without reducing the amount of debt outstanding. The ratio, "Return on Equity", however, is only a meaningful measure if Equity is larger than zero. Furthermore, Return on Equity and Return on Assets is only a meaningful measure if the asset base and the equity base are sufficiently large to avoid the problem of low denominators. Return on Equity and Return on Assets are not a meaningful measure if they are, for example $250 \%$ or $-80 \%$, or if equity is negative. Again, these ratios are meant to indicate the implicit "interest rate" that the business earns on its equity and its capital. A low capital or equity base can lead to absurd ratios that are the mathematical result of the low denominator used in the calculations without true economic meaning. The present study bounded reasonable values between $-40 \%$ and $+60 \%$, and all other values were deleted. Ratios are indicated by $\mathrm{n} / \mathrm{m}$ (not meaningful) in the tables.

## Data Confidentiality

Whenever the number of observations (businesses) was less than 5 the data was suppressed whenever financial data is presented.

N/A in tables - meant data not applicable

## APPENDIX F - Files linked, content description and process

### 1.0 Files linkage process

1.1Source Files linked

- Canada Small Business Financing Program database - 1999-2000
- Business Register - $(1999,2000,2002)$
- Longitudinal employment analysis program - (LEAP) 1994 to 2001
- T2 Corporate Tax Data file (T2 Admin) - 1998 and;
- General Index of Financial Information (GIFI) (1999-2002)

A step by step description of the process is outlined below :

### 1.2 Linkage procedure

This study required linking CSBF records from a file provided by Industry Canada, to the Business Register, using Goods and Services Tax (GST) numbers in order to obtain both the Business Number (BN) and the Statistical Enterprise Number (SNUM) identifiers for these SMEs. Using SNUM identifiers, these records were linked to the Longitudinal Employment Analysis Program (LEAP) data base to obtain year over year employment growth.

The SMEs used in the LEAP analysis were linked to T2 Admin data 1998 and General Index of Financial Information (GIFI) for year 1999 to 2002 using BN numbers for year 1998.
The steps required to link the records were as follows:
Step1. a) The list of 13,516 businesses registered with the CSBF Program in 1999-2000 was matched to the Business Register (reference year 1999 and 2000), using GST numbers.
b) Two output files were created for matched BR records.
i) The first file contained attributes of Program Participants for use in determining stratification variables to be used in selecting a random sample of other SMEs with similar characteristics that did not use the CSBF Program (Business size, number of employees, NAICS Code, and Region)
ii) The second file contained a list of BN and SNUM identifiers of program participants for subsequent matching with LEAP/GIFI /T2 Admin data for the study group)
Step 2. Using the attributes file created in step1 to identify the stratification criteria, a random sample of SMEs was selected from the Business Register unmatched file to form a comparison group.
Step 3. These two groups - study and comparison - were matched to LEAP and T2 Admin data (reference year 1998) to create a baseline of employment and financial data. It should be recognized that:
i) non employers were not retained as LEAP is an employers only file;
ii) non-incorporated businesses were not retained as T2 Admin data contains no information on unincorporated businesses and;
iii) if a business was a start-up in 1999 and joined the CSBF Program that year, there can be no pre-program picture of the business.

Step 4. These two groups will then be linked to LEAP data (reference year 1999 through 2001) to show year over year changes in employment growth between the two groups. It is expected that the data obtained from these files are of good quality and will permit a solid evaluation of the program. This study also examined employment for the period 1994 to 1998 of firms prior to joining the CSBF Program in 1999 (see step \# 7).
Step 5. These two groups were then linked to GIFI (reference year 1999 through 2002) to show year over year changes in revenue and expense data between the two groups.
Step 6. To measure survival rates we counted the number of businesses that existed in 1998 in each group on the LEAP files with the number that still existed in 2002 (as recorded by the Business Register). Although this may not appear to be a long time series (4 years), most businesses terminate within the first 3 years.
Step 7. Those businesses linked under Step 1 were further traced back to reference year 1994 to provide longitudinal information. This step only included linked businesses* that were in operation between 1994-1999 and that had entered the CSBF Program in the 19992000 period. This helped provide a profile of businesses prior to entering the CSBF Program between 1999 and 2000. Businesses included in this longitudinal analysis represent a cohort of the substudy group. Using the LEAP file attributes (employment and payroll earnings), a random sample of SMEs was selected from LEAP/GIFI to form a cohort of the comparison group.
*This will be limited by the fact that approximately 55\% of CSBF borrowers are start-ups.
1.3 Removal of businesses from the study group and comparison group There are basically 4 types of businesses that were removed:

For the study group:
Removal of unincorporated businesses: Selected Unincorporated businesses were purged from the CSBF files, as LEAP is an employer only data file used in the first match. Others were purged following the match to the Tax file as only incorporated tax data records were used.

Removal due to unmatched identifiers: Units that were not identified from the Business Register were removed due either to invalid GST or invalid BN.

There were 17,741 registrations in CSBF of which up to 13,516 were used for this study with the LEAP data from 1998 to 2001. - (LEAP file contains only employer businesses thus 4,225 non-employer businesses make up the difference).

Removal of enterprises with annual revenues greater than $\$ 6$ million An analysis of the enterprises from the study grouped revealed this threshold to be the most appropriate given the CSBF loan eligibility criteria (maximum firm size is based on (borrower estimates of) maximum annual revenues of $\$ 5 \mathrm{M}$ at the time of loan registration).

For both the study and comparison group:
Further removal at the analysis stage had taken place for businesses where the records showed highly extreme "outlier" values.

### 1.4 Treatment of duplicates

Enterprises under the CSBF Program are eligible to request more than one loan from this program (even within the same year). As agreed to with Industry Canada, a business was represented in the data as many times as it received CSBF loans.

### 1.5 Decision process from the file matching process

As the record linkage process involved several matching processes every linkage resulted in a reduced number of observations from the original file.
A decision needed be taken to produce a consistent number of units in the analytical data table. At each record linkage step, approximately $20 \%$ of the businesses were lost (unmatched on identifier key). Thus the option of examining businesses' employment growth after LEAP matching process or further to GIFI matching process resulted in a further 20 \% reduction in the number of matched observations.

## 1.6 - Weighting procedures

For businesses operating in more than one Province, a weighing procedure was used to allocate financial data from GIFI. The allocator used is "total payroll", which comes from LEAP, where provincial data is available

## Appendix G - Methodology Report on the Creation of the Comparison group

Report on the creation of a comparison group for the SME
Economic Impact Study
Prepared in November 2004 by Business Surveys Methods
Division (BSMD) and Small Business and Special Surveys
Division (SBSS), Statistics Canada.

## OVERVIEW

A comparison group (non-CSBF borrowers) was identified from Business Register (BR) records. Businesses in the comparison group were matched to study group records based on variables common to both data sets. A distance function was used to choose the best comparison record for each record in the CSBF group. Of 9,149 records in the CSBF group, 8858 were assigned nonCSBF borrowers, all of which seemed to be well matched.

## DATA FILES

The file for the study group included fields from the BR, LEAP and GIFI. In addition to NAICS and business age, five numerical variables (or groups of variables) were used to match a comparison group to the study group:

- ALU - Average labour units (i.e., employment as recorded by LEAP Payroll/average annual earnings),
- Size of payroll,
- Sales,
- Size of balance sheet (assets, liabilities),
- Profits (Gross profit, operating profit).


## METHOD

We classified each CSBF business into a subset according to the decile (tenth percentile) in which each of its variables belonged. Using the frequency distributions of the study group variables, bounds of deciles of each of the variables were identified.

By way of example, the decile bounds of the variable "size of payroll" were:

|  | interval | decile |  | Interval | decile |
| :--- | :--- | :--- | :--- | :--- | :---: |
|  | Up to 21 546 | 1 |  | $113240-156650$ | 6 |
|  | $21547-39391$ | 2 |  | $156651-218023$ | 7 |
|  | $39392-59205$ | 3 |  | $218024-315417$ | 8 |
|  | $59206-83003$ | 4 |  | $315418-529904$ | 9 |
|  | 83004 | 5 |  | 529905 | 10 |
| 113239 |  | 11535440 |  |  |  |

For each of the variables, a decile variable was created using the same bounds for both the non-borrower records as well as the study group. To clarify, the nonCSBF borrower records were classified according to the distributions of variables of the CSBF group.

The CSBF group was divided into eight exclusive subgroups based on industrial sector. Each sector was defined by NAICS at the two-digit level. The use of eight mutually exclusive subsets on which to match not only ensured better comparison records but also reduced processing time considerably.

The maximum value of each of the matching variables in the set of CSBF borrowers was identified. The potential comparison set was restricted to organisations for which all matching values were no higher than 110\% of the maximum values in the set of CSBF borrowers. Due to the fact that $\$ 0$ of assets was probably indicative of a missing rather than actual value in the data set, organizations with $\$ 0$ of assets were excluded from the potential comparison set. Next, organizations that already appeared among the set of client organizations were removed, leaving a potential comparison set of 557789 organizations. The distributions of the values of the matching variables seemed to be reasonably consistent across both data sets - that of CSBF borrowers and of the potential comparison organisations. For example, the maximum ALU value of the potential comparison group was 335.89, compared to 307.06 among CSBF borrowers.

## Distance function

Within each industrial sector set, each record of the study group was compared to each non-CSBF record using the deciles of the six matching variables according to the following algorithm.

Let $X_{i j}$ denote variable $i$ for study group observation $j, i=1$ to 6 and $j=1$ to $n_{q}$ where $q$ is the industrial sector set, $q=1$ to 8 .
Let $D_{i j}$ denote in which decile the value of $X_{i j}$ belongs.
Similarly define $X_{i k}$ and $D_{i k}$ non-CSBF observation $k$.

Then the distance function is defined as $D_{i j k}=\sum_{i=1}^{6}\left(D_{i j}-D_{i k}\right)^{2}$.

Once the distance function value had been obtained for all non-CSBF borrower records in a quintile set, non-CSBF borrowers were assigned to CSBF group records on the basis of minimum distance.

That result of the distance function is the highest observed value of $D$ among matched records.

Illustrative simplified example:
A CSBF record:
Decile of ALUs: 3
Decile of assets: 3
Decile of liability: 3
Decile of Payroll: 3
Decile of grossprofits: 3
Decile of sales: 3

A non-CSBF comparison record:
Decile of ALUs: 3
Decile of assets: 4
Decile of liability: 4
Decile of Payroll: 3
Decile of grossprofits: 5
Decile of sales: 5

Then the distance function becomes:

$$
\begin{aligned}
\mathrm{D} & =(3-3)^{\wedge} 2+(3-4)^{\wedge} 2+(3-4)^{\wedge} 2+(3-3)^{\wedge} 2+(3-5)^{\wedge} 2+(3-5)^{\wedge} 2 \\
& =0+1+1+0+4+4 \\
& =10
\end{aligned}
$$

Suitable non-CSBF borrower records could be found for 9113 records of the study group. The maximum distance was 10 , which was considered of very good quality. Comparison records were allowed to appear only once in the comparison group, otherwise a further 36 study group records would have been assigned comparison records.

## Quality evaluation

Quality was assessed in two ways. First, the value of the distance function was considered to verify an appropriate match if its value were no greater than 25 , given that six variables were included in the matching process.

Second, standardized differences were inspected for large values. The standardized differences were defined as $\left(X_{i j}-X_{i k}\right) / s\left(X_{i \bullet}\right)$ using the standard deviation of the variable across observations of the study group. While most observations had acceptably low values of standardized differences, an inconsistency was identified that occurred when either or both the borrower or non-borrower record had a value of a variable in the $10^{\text {th }}$ decile. Since most of these variables were positively skewed, it was possible for two values to fall within the $10^{\text {th }}$ decile and yet be different by one order of magnitude or more. The following criteria were implemented:

- Eight variables (the six matching variables, operating profits, revenue) were included when inspecting for outlying values;
- No standardized difference could be more than a value of 5;
- No more than one standardized difference could be more than a value of 3;
- No more than three standardized differences could be more than a value of 2 .

After excluding 255 records due to matching on outlying values, 8858 comparison records were assigned to CSBF borrowers for analysis by SBSS. Of these matches, 8775 (99\%) had a distance function value $D_{i j k}$ of no more than 3.
The maximum value of ALU among the comparison organizations was 209.07.

## Assessment of approach

This approach was a solid one to implement. The built-in flexibility of the use of deciles made it possible to identify controls for each CSBF group record within a known maximum difference.

The alternative approach would have been to select a control for each CSBF borrower business judged to have the closest resemblance according to a computer resource-intensive algorithm, similar to what would be used in donor imputation using a "nearest neighbour approach". Using that approach, however, we would not be able to quantify meaningfully the maximum differences between CSBF borrowers and comparison businesses.

Appendix H - Study and Comparison groups table outputs


## List of Tables

| Code Definition | Series :1-CSBF group (="Study group") Series 2: - Comparison group (= "Control group") |
| :---: | :--- |
| Table 1 | Employment characteristics 1998-2001. (Payroll, ALU and average earnings) <br> by region, industry, employment size, revenue and location |
| Table 1A | Employment characteristics 1994-1997. (Loans size, class and value) <br> by region, industry, employment size, revenue and location (CSBF group only). |
| Table 2 | CSBF / Borrowers 1999-2000 matched with LEAP-GIFI data for year 1999 <br> by region, industry, employment size, revenue, location, business age, type and lender type |
| Table 3 | Financial characteristics summary by region 1998 to 2002. (Financial ratios and tax) |
| Table 4 | Financial characteristics summary by North American Industrial Classification System (NAICS) groupings 1998-2002 <br> (Financial ratios and Tax) |
| Table 5 | CSBF Financial and borrowers characteristics 1998-2002 (Financial ratios and Tax) <br> by business type, class of loan and lender type. |
| Table 6 | Financial and borrowers characteristics 1998-2002 (Financial ratios and Tax) <br> by employment size, revenue and business age |
| Table 7 | Entry and exits by employment size 1999-2001 |

Abbreviations: $\mathrm{n} / \mathrm{a}$ (not applicable) and $\mathrm{n} / \mathrm{m}$ (not meaningful).

Table 1 Economic Impact Study - Employment Characteristics 1998-2001 Series 1: Study Group
Data shown refer to businesses that were alive in 2000

| Table 1 Economic Impact Study - Employment Characteristics 1998-2001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 1 : Study Group <br> Data shown refer to businesses that were alive in 2000. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1998 |  |  |  | 1999 |  |  |  | 2000 |  |  |  | 2001 |  |  |  |
|  |  | Business number | $\begin{aligned} & \hline \text { Payroll } \\ & 000 \$ \$ \end{aligned}$ | $\begin{gathered} \hline \hline \text { ALU } \\ \text { number } \end{gathered}$ | Average annual earnings \$ | Business | Payroll '000 \$ | ALU number | Average annual earnings \$ | Business | Payroll | ALU number | $\begin{gathered} \text { Average annual } \\ \text { earnings } \$ \end{gathered}$ | Business number | Payroll '000 \$ | ALU number | Average annual earnings \$ |
| Canada Total |  | 4.867 | 1,002,626 | 44,110 | 22,730 | 8,120 | ${ }^{1,756,257}$ | 69,498 | 25,271 | . 149 | 2,105,523 | 86,217 | 24,421 | 8,569 |  | 85,482 | 25,478 |
|  | Region 1 Atlantic | 463 | 68,908 | 3,490 | 19,744 | 748 |  | 5,633 | 21,197 | 830 | 142,927 | 6,959 | 20,539 | 775 | ${ }^{2,177,944} 147,483$ | 6,977 | 21,139 |
|  | Region 2 Quebec | 2,137 | 446,412 | 20,443 | 21,837 | 3,243 | 743,545 | 30,372 | 24,482 | 3,561 | 871,615 | 35,928 | 24,260 | 3,310 | 886,085 | - ${ }^{35,737}$ | 137 |
|  | Region 3 Ontario | 1,041 | 260,660 | 10,071 | 25,881 | 1,980 | 479,531 | 16,795 | 28,52 | 2,265 | 620,651 | 22,016 |  |  |  |  | 3 |
|  | Region 4 Prairies | 806 | 141,808 | 6,389 | 22,194 | 1,425 | 263,393 | 10,921 | 24,117 | 1,662 | 300,380 | 13,758 | 21,833 | 1,565 | 316,168 | 13,371 |  |
|  | Region 5 BC | 407 | 82,372 | 3,653 | 22,552 | 701 | 147,174 |  | 25,271 $\quad 34,442$ | 807 | - 4 4,225 | ${ }_{86,217} \quad 139$ | 22,344 |  |  | 6,760 | 60 23,818 <br> 53 19,45 |
|  | Region 6 Teritories | 13 | 2,466 | 64 | 22730 38,430 | $8,120 \quad 23$ | 1,756,257 3,219 | ${ }^{\text {9 }}$ |  | 24 |  |  | - 30,325 | 8.569 | - 4 4,914 | 253 |  |
| Industry Group |  | 4,867 | 1,002,626 | 44,110 |  |  |  |  | 25,271 | 9,149 | $\frac{\left.\right\|^{2,105,523}}{404,464 \mid}$ |  | 24,421 |  | 2,177,942 | 85,482 | 25,478 |
|  | Manufacturing | 816 | 227,738 | 9,631 | 22,730 ${ }^{23,647}$ | 1,199 | 326,275 | ${ }^{69,498}{ }_{13,106}$ | 24,894 | ${ }_{1}^{1,311}$ |  | 15,674 | 25,804 | 1,212 | 422,761 $\quad 15,626$ |  | 27,055 |
|  | Retail Trade | 632 | 88,184 | 4.889 | $\frac{18,039}{}$ | ${ }_{1}^{1,159}$ | 134,444 | 6,947 | 19,353 |  | 186,483 9,148 |  | 20,385 | 1,271 | [ $\begin{array}{r}181,733 \\ \hline 134,119\end{array}$ | 8,783$\quad 4,647$ |  |
|  | Transp. and Warehousing | 552 | 73,544 | 2,912 | 25,253 | 775 | 97,799 | 3,650 | 26,997 | 809 | 125,194 | 4,464 | 28,044 | 766 |  |  | $\begin{array}{r}28,862 \\ \hline 12,557 \\ \hline\end{array}$ |
|  | Accomm. and Food Services | 373 | 76,441 | 6,711 | 11,390 | 1,137 | 150,819 | 12,388 | 12,174 | 1,476 | 257,211 | 20,584 | 12,496 | 1,372 | $\begin{array}{r}250,182 \\ \hline 322,296\end{array}$ | $\begin{array}{r} \hline 4,647 \\ \hline 19,923 \\ \hline \end{array}$ |  |
|  | Prof, Scientific and Tech.Serv. | 375 | 96,954 | 2,719 | 35,654 | 584 | 199,055 | 5,041 | 39,484 | 615 | 300,207 | 6,835 | 43,921 | 570 |  | 6,576 | ¢ <br> 6 <br> 5 |
|  | Agri.,For.,Fish.,Hun.,Const. | 728 | 144,495 | 5,057 | 28,575 | 982 | 190,603 | 6,078 | 31,359 | 1,028 | 232,361 | 7,044 | 32,988 | 967 | 232,544 | 7,065 |  |
|  | Group A | 646 | 144,133 | 6,192 | - $\quad \begin{array}{r}23,2782 \\ \hline 25192\end{array}$ |  | 220,769 | 8,991 | 24,553 | 1,183 | 287,923 | 11,342 | 25,386 | 1,110 | 307,066 | 11,538 | 26,613 |
|  | Group B | 745 | 151,137 | 5,999 |  | 8 8,120 ${ }^{1,212}$ | $\begin{array}{\|c\|} \hline 436,493 \\ \hline 1,756,257 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 13,296 \\ \hline 69,498 \end{array}$ | $25,271 \quad 32,829$ | ${ }_{9,149}^{1,355}$ | $\begin{array}{\|c\|} \hline 311,679 \\ \hline 2,105,523 \\ \hline 6 \\ \hline 6 \end{array}$ | ${ }_{86,217}^{11,126}$ | $\begin{array}{ll}24,421 & 28,012 \\ \\ \end{array}$ | 8,569 | $\begin{array}{\|c\|} \hline 2,177,942,241 \\ \hline 8 \mid \\ \hline 8 \\ \hline \end{array}$ | ${ }_{85,482}^{11,323}$ | 25,478 |
| Business Employment Size |  | 4,867 | 1,002,626 | 44,110 | 22,730 | 8,120 |  |  |  |  |  |  |  |  |  |  |  |
|  | 1-4 employees | 2,417 | 157,894 | 5,388 | 29,304 | 4,623 | 247,830 | 8,978 | 27,603 | 4,646 |  | 10,190 | 29,022 | 4,168 |  | 9,229 | 30,22 |
|  | 5-19 employees | 1,907 | 460,672 | 19,209 | 23,982 | 2,693 | 665,304 | 26,802 | 24,823 | 3,402 | 860,999 | 33,931 | 25,375 | 3,262 | 855,661 | 32,497 | 26,331 |
|  | 20-49 employees | 466 | 272,786 | 13,240 | 20,603 |  | 452,621 | 19,431 | 23,294 |  | 625,481 | 27,083 | 23,095 |  | 669,595 | 27,578 |  |
|  | 50 and more employees | 77 | 111,273 | 6,274 | 17,737 | 134 | 390,502 | 14,287 | 27,333 | 189 | 323,297 | 15,013 | 21,535 | 206 | 373,768 | 85,482 | 25,478 |
| Business Revenues in \$ |  | 4.867 | 1,002,626 | 44,110 | 22,730 | ${ }_{8,120} \quad 2$ | 1,756,257 | 69,498 | 25,271 | 9,149 | $2,105,523$ | 86,217 | 24,421 | 8.569 | 2,177,942 |  |  |
|  | 0 to 100,000 | 869 | 115,325 | 4,970 | 23,202 | 2,111 | 187,278 | 7,643 | 24,503 | 2,515 | 307,350 | 12,164 | 25,267 | 2,250 |  | 12,573 |  |
|  | 100,001 to 250,000 | 790 | 43,177 | 2,044 | 21,121 | 1,573 | 83,322 | 3,975 | 20,959 | 1,860 | 148,335 | 7,027 | 21,108 | 1,735 | 162,077 | 7,308 | 22,177 |
|  | 250,001 to 500,000 | 857 | 99,065 | 4,466 | 22,182 | 1,405 | 160,041 | 7,218 | 22,173 | 1,623 | 238,410 | 10,856 | 21,960 | 1,556 | 261,240 | 11,250 | 23,221 |
|  | 500,001 to 1,000,000 | 1,123 | 199,797 | 9,504 | 21,022 | 1,462 | 292,628 | 13,104 | 22,331 | 1,554 | 393,348 | 17,080 | 23,029 | 1,494 | 415,558 | 17,237 |  |
|  | 1,000,001 to 2,000,000 | 810 | 285,262 | 12,782 | 22,317 | 1,018 | 423,710 | 17,798 | 23,807 | 1,059 | - 536,352 | 22,054 | 24,319 | 1,022 | 537,106 | 21,678 | 24,777 |
|  | 2,000,001 to 6,000,000 | 418 | - 260,001 | 10,343 | 25,138 | 551 | 609,278 | 19,760 | 30,834 | 538 | 481,728 | 17,034 | 28,280 | 512 | 469,722 | ${ }_{85,482}^{15,435}$ |   <br> 25,478 30,432 |
| Teritorial Location |  | 4,867 $\quad 12$ | 1,002,626 | 44,110 ${ }^{11844}$ | 22,730 | 8,120  <br>  548 | $1,756,257$ | ${ }^{69,498}$ | 25,271 | 9,149 | $2,105,523$ | ${ }^{86,217}$ 65,692 | 24,421 | 8.569 | $\begin{array}{l\|l} 2,177,942 & 8 \\ \hline 1,684,602 \end{array}$ |  |  |
|  | Urban | 3,255 1,612 | [ 727,433 | 31,844 12,267 | 22,875 22,353 | 5,648 2,472 | $\begin{array}{\|r\|r\|} \hline 3 & 1,390,896 \\ \hline & 365,361 \\ \hline \end{array}$ | [ $\begin{array}{r}53,716 \\ 15,782 \\ \hline\end{array}$ | 25,893 | 6,410 2,739 | $\begin{array}{\|r\|r\|} \hline 0 & 1,626,458 \\ \hline 9 & 479,065 \\ \hline \end{array}$ | 65,692 <br> 20,525 | 24,759 23,340 | 5,991 <br> 2.578 | $\begin{array}{\|r\|} \hline 1,684,602 \\ \hline \end{array} \quad 493,340 \left\lvert\, \begin{aligned} & \\ & \hline \end{aligned}\right.$ | 65,227 <br> 20,255 | $\frac{25,827}{24,356}$ |
|  |  |  |  |  |  |  |  |  |  | 2,130 |  |  |  |  |  |  |  |

Table 1 Economic Impact Study - Employment Characteristics 1998-2001


Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).


Business Revenue Size groups are not included in this table because no link with tax data is possible from 1994-7.

Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).


Group A contains the following NAICS sectors : Mining and oil and Gas Extraction, Utilities, Information and Cultural Industries, Finance and Insurance, Real Estate and Rental and Leasing, Admin.\& Support, Waste Mgmt and Remediation Services, Educational Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (incl. Public Administration),

Table 3 Economic Impact Study - Financial Characteristics Summary by Region, 1998

| Series 1 : Study Group |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 4,867 | 463 | 2,137 | 1,041 | 806 | 407 | 13 |
| Total Employment (ALUs) | 44,110 | 3,490 | 20,443 | 10,071 | 6,389 | 3,653 | 64 |
| ALU/business | 9.1 | 7.5 | 9.6 | 9.7 | 7.9 | 9.0 | 4.9 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |
| Total Sales | 3,491,337 | 277,047 | 1,573,647 | 820,314 | 519,494 | 292,682 | 8,154 |
| Assets | 1,793,872 | 147,870 | 860,364 | 390,628 | 250,502 | 137,986 | 6,522 |
| Liabilities | 1,387,891 | 116,831 | 618,463 | 331,751 | 194,825 | 121,415 | 4,605 |
| Equity | 405,981 | 31,038 | 241,901 | 58,877 | 55,677 | 16,571 | 1,917 |
| Net income | 86,307 | 9,938 | 36,049 | 15,081 | 19,610 | 5,086 | 543 |
| Net Income (Profit) | 150,349 | 13,001 | 68,781 | 31,539 | 27,007 | 9,440 | 581 |
| Net Income (Loss) | -64,042 | -3,064 | -32,732 | -16,458 | -7,396 | -4,353 | -38 |
| Net Income (Profit) (counts) | 3,521 | 331 | 1,619 | 745 | 570 | 247 | 9 |
| Net Income (Loss) (counts) | 1,346 | 132 | 518 | 296 | 236 | 160 | 4 |
|  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |
| Gross Margin (=Gross Profit/Sales)(\%) | 25.3 | 15.6 | 26.2 | 26.8 | 24.7 | 26.3 | 31.9 |
| Sales per dollar of Assets | 1.9 | 1.9 | 1.8 | 2.1 | 2.1 | 2.1 | 1.3 |
| Sales/employee \$ | 79,150 | 79,380 | 76,978 | 81,450 | 81,306 | 80,132 | 127,065 |
| Return on equity (=Net income/Equity) | 21.3 | 32.0 | 14.9 | 25.6 | 35.2 | 30.7 | 28.3 |
| Financial leverage (=Liabilities / Equity) | 3.4 | 3.8 | 2.6 | 5.6 | 3.5 | 7.3 | 2.4 |
| Sales/business '000 \$ | 717 | 598 | 736 | 788 | 645 | 719 | 627 |
|  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |
| Income tax | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Current | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Deferred | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Net GST remittance (\% of sales) | 1.3 | 1.4 | 1.3 | 1.4 | 1.1 | 1.6 | 0.9 |
| Net GST remittance '000 \$ | 46,086 | 3,796 | 19,828 | 11,484 | 5,455 | 4,566 | 72 |

Table 3 Economic Impact Study - Financial Characteristics Summary by Region, 1998

| Series 2 : Comparison Group |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 7,751 | 648 | 1,995 | 2,360 | 1,428 | 1,268 | 52 |
| Total Employment (ALUs) | 70,354 | 6,409 | 16,482 | 21,791 | 13,962 | 11,297 | 412 |
| ALU/business | 9.1 | 9.9 | 8.3 | 9.2 | 9.8 | 8.9 | 7.9 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |
| Total Sales | 5,533,470 | 395,344 | 1,298,086 | 1,883,000 | 1,031,794 | 875,647 | 49,599 |
| Assets | 3,306,732 | 264,596 | 785,433 | 1,049,777 | 634,041 | 537,904 | 34,980 |
| Liabilities | 2,513,278 | 206,608 | 572,871 | 822,035 | 448,799 | 436,866 | 26,099 |
| Equity | 793,454 | 57,988 | 212,562 | 227,743 | 185,242 | 101,038 | 8,881 |
| Net income | 159,122 | 5,117 | 37,557 | 62,351 | 32,673 | 19,850 | 1,574 |
| Net Income (Profit) | 255,386 | 15,677 | 61,565 | 84,571 | 54,343 | 37,376 | 1,854 |
| Net Income (Loss) | -96,264 | -10,561 | -24,008 | -22,220 | -21,670 | -17,526 | -280 |
| Net Income (Profit) (counts) | 5,061 | 432 | 1,309 | 1,596 | 975 | 718 | 31 |
| Net Income (Loss) (counts) | 2,690 | 216 | 686 | 764 | 453 | 550 | 21 |
|  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |
| Gross Margin (=Gross Profit/Sales)(\%) | 24.6 | 172 | 25.5 | 25.4 | 24.1 | 25.5 | 23.3 |
| Sales per dollar of Assets | 1.7 | 1.5 | 1.7 | 1.8 | 1.6 | 1.6 | 1.4 |
| Sales/Employee \$ | 78,652 | 61,688 | 78,756 | 86,412 | 73,899 | 77,511 | 120,309 |
| Return on equity (=Net income/Equity) | 20.1 | 8.8 | 17.7 | 27.4 | 17.6 | 19.6 | 17.7 |
| Financial leverage (=Liabilities / Equity) | 3.2 | 3.6 | 2.7 | 3.6 | 2.4 | 4.3 | 2.9 |
| Sales/business '000 \$ | 714 | 610 | 651 | 798 | 723 | 691 | 954 |
|  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |
| Income tax | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Current | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Deferred | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Net GST remittance (\% of sales) | 1.3 | 1.4 | 1.3 | 1.4 | 1.1 | 1.6 | 0.9 |
| Net GST remittance '000 \$ | 73,042 | 5,416 | 16,356 | 26,362 | 10,834 | 13,660 | 436 |

Table 3 Economic Impact Study - Financial Characteristics Summary by Region, 1999

| Series 1 : Study Group |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 8,120 | 748 | 3,243 | 1,980 | 1,425 | 701 | 23 |
| Total Employment (ALUs) | 69,498 | 5,633 | 30,372 | 16,795 | 10,921 | 5,684 | 93 |
| ALU/business | 8.6 | 7.5 | 9.4 | 8.5 | 7.7 | 8.1 | 4.1 |
| Financial Characteristics |  |  |  | 000 \$ |  |  |  |
| Total Sales | 5,065,551 | 398,911 | 2,213,032 | 1,321,907 | 710,083 | 408,885 | 12,734 |
| Assets | 2,904,651 | 253,071 | 1,259,673 | 710,566 | 435,294 | 235,012 | 11,034 |
| Liabilities | 2,270,026 | 204,880 | 923,288 | 613,327 | 316,543 | 204,422 | 7,566 |
| Equity | 634,625 | 48,191 | 336,385 | 97,239 | 118,751 | 30,590 | 3,468 |
| Net income | 114,875 | 14,984 | 54,935 | 15,087 | 24,250 | 4,883 | 736 |
| Net Income (Profit) | 258,841 | 22,732 | 114,046 | 63,975 | 41,831 | 15,267 | 990 |
| Net Income (Loss) | -143,966 | -7,749 | -59,111 | -48,887 | -17,580 | -10,385 | -254 |
| Net Income (Profit) (counts) | 5,066 | 478 | 2,254 | 1,156 | 786 | 377 | 15 |
| Net Income (Loss) (counts) | 3,054 | 270 | 989 | 824 | 639 | 324 | 8 |
| Financial Ratios |  |  |  |  |  |  |  |
| $\begin{array}{\|l} \hline \begin{array}{l} \text { Gross Margin } \\ \text { (=Gross Profit/Sales)(\%) } \end{array} \\ \hline \end{array}$ | 45.6 | 50.8 | 41.3 | 46.0 | 53.9 | 47.2 | 50.2 |
| Sales per dollar of Assets | 1.7 | 1.6 | 1.8 | 1.9 | 1.6 | 1.7 | 1.2 |
| Sales/employee \$ | 72,888 | 70,822 | 72,865 | 78,708 | 65,018 | 71,937 | 136,247 |
| Return on equity <br> (=Net income/Equity) | 18.1 | 31.1 | 16.3 | 15.5 | 20.4 | 16.0 | 21.2 |
| Financial leverage (=Liabilities / Equity) | 3.6 | 4.3 | 2.7 | 6.3 | 2.7 | 6.7 | 2.2 |
| Sales/business '000 \$ | 624 | 533 | 682 | 668 | 498 | 583 | 554 |
| Tax |  |  |  | 000 \$ |  |  |  |
| Income tax | 41,080 | 5,054 | 20,101 | 10,391 | 2,280 | 2,849 | 406 |
| Current | 43,197 | 4,370 | 19,100 | 9,661 | 6,887 | 2,768 | 411 |
| Deferred | -2,117 | 684 | 1,001 | 730 | -4,607 | 81 | -05 |
| Net GST remittance (\% of sales) | 1.3 | 1.4 | 1.2 | 1.5 | 1.1 | 1.6 | 0.9 |
| Net GST remittance '000 \$ | 67,878 | 5,425 | 27,220 | 19,432 | 7,456 | 6,338 | 117 |

Table 3 Economic Impact Study - Financial Characteristics Summary by Region, 1999

| Series 2 : Comparison Group |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 9,061 | 789 | 2,249 | 2,815 | 1,631 | 1,521 | 56 |
| Total Employment (ALUs) | 80,906 | 7,256 | 19,380 | 24,868 | 17,067 | 11,857 | 479 |
| ALU/business | 8.9 | 9.2 | 8.6 | 8.8 | 10.5 | 7.8 | 8.6 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |
| Total Sales | 6,357,377 | 481,367 | 1,520,264 | 2,209,101 | 1,133,023 | 968,058 | 45,564 |
| Assets | 3,902,473 | 314,991 | 952,576 | 1,255,223 | 740,289 | 608,631 | 30,764 |
| Liabilities | 2,940,764 | 236,544 | 675,191 | 987,585 | 537,372 | 477,702 | 26,369 |
| Equity | 961,710 | 78,447 | 277,385 | 267,637 | 202,917 | 130,929 | 4,394 |
| Net income | 224,602 | 6,471 | 50,665 | 69,900 | 32,060 | 65,355 | 152 |
| Net Income (Profit) | 340,915 | 21,625 | 74,875 | 106,512 | 53,940 | 82,986 | 978 |
| Net Income (Loss) | -116,313 | -15,154 | -24,210 | -36,613 | -21,880 | -17,631 | -826 |
| Net Income (Profit) (counts) | 5,860 | 518 | 1,492 | 1,880 | 1,015 | 924 | 31 |
| Net Income (Loss) (counts) | 3,201 | 271 | 757 | 935 | 616 | 597 | 25 |
| Financial Ratios |  |  |  |  |  |  |  |
| Gross Margin (=Gross Profit/Sales)(\%) | 47.6 | 46.1 | 44.2 | 47.1 | 51.0 | 50.7 | 43.5 |
| Sales per dollar of Assets | 1.6 | 1.5 | 1.6 | 1.8 | 1.5 | 1.6 | 1.5 |
| Sales/Employee \$ | 78,577 | 66,338 | 78,447 | 88,834 | 66,386 | 81,647 | 95,135 |
| Return on equity (=Net income/Equity) (\%) | 23.4 | 8.2 | 18.3 | 26.1 | 15.8 | 49.9 | n/a |
| Financial leverage (=Liabilities / Equity) | 3.1 | 3.0 | 2.4 | 3.7 | 2.6 | 3.6 | n/a |
| Sales/business '000 \$ | 701,620 | 610,098 | 675,973 | 784,761 | 694,680 | 636,461 | 813,642 |
| Tax | 000 \$ |  |  |  |  |  |  |
| Income tax | 251,797 | 46,612 | 33,209 | 54,489 | 56,333 | 58,737 | 2,417 |
| Current | 256,844 | 50,512 | 34,177 | 55,902 | 55,057 | 56,740 | 4,456 |
| Deferred | -5,047 | -3,900 | -967 | -1,414 | 1,277 | 1,997 | -2,039 |
| Net GST remittance (\% of sales) | 1.3 | 1.4 | 1.2 | 1.5 | 1.1 | 1.6 | 0.9 |
| Net GST remittance '000 \$ | 85,189 | 6,547 | 18,699 | 32,474 | 11,897 | 15,005 | 419 |

Table 3 Economic Impact Study - Financial Characteristics Summary by Region, 2000

| Series 1 : Study Group |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 9,149 | 830 | 3,561 | 2,265 | 1,662 | 807 | 24 |
| Total Employment (ALUs) | 86,217 | 6,959 | 35,928 | 22,016 | 13,758 | 7,417 | 139 |
| ALU/business | 9.4 | 8.4 | 10.1 | 9.7 | 8.3 | 9.2 | 5.8 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |
| Total Sales | 6,603,567 | 518,546 | 2,758,053 | 1,779,132 | 991,362 | 539,779 | 16,694 |
| Assets | 3,937,487 | 302,426 | 1,752,324 | 1,014,093 | 540,964 | 314,238 | 13,442 |
| Liabilities | 3,336,089 | 258,734 | 1,346,701 | 943,010 | 480,357 | 297,604 | 9,682 |
| Equity | 601,398 | 43,692 | 405,623 | 71,083 | 60,607 | 16,634 | 3,759 |
| Net income | -55,172 | 1,226 | 156 | -52,757 | 1,705 | -6,358 | 856 |
| Net Income (Profit) | 266,382 | 20,883 | 128,269 | 59,360 | 38,491 | 18,284 | 1,094 |
| Net Income (Loss) | -321,555 | -19,658 | -128,113 | -112,117 | -36,786 | -24,643 | -238 |
| Net Income (Profit) (counts) | 4,905 | 540 | 2,203 | 1,103 | 771 | 373 | 15 |
| Net Income (Loss) (counts) | 4,244 | 290 | 1,358 | 1,162 | 891 | 434 | 9 |
|  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Gross Margin } \\ \text { (=Gross Profit/Sales)(\%) } \end{array} \\ & \hline \end{aligned}$ | 45.0 | 49.7 | 39.9 | 45.6 | 54.9 | 46.5 | 53.4 |
| Sales per dollar of Assets | 1.7 | 1.7 | 1.6 | 1.8 | 1.8 | 1.7 | 1.2 |
| Sales/employee \$ | 76,592 | 74,515 | 76,767 | 80,810 | 72,058 | 72,775 | 119,810 |
| Return on equity (=Net income/Equity) | -9.2 | 2.8 | $\mathrm{n} / \mathrm{m}$ | $\mathrm{n} / \mathrm{m}$ | 2.8 | $\mathrm{n} / \mathrm{m}$ | 22.8 |
| Financial leverage (=Liabilities / Equity) | 5.5 | 5.9 | 3.3 | n/m | 7.9 | $\mathrm{n} / \mathrm{m}$ | 2.6 |
| Sales/business '000 \$ | 722 | 625 | 775 | 785 | 596 | 669 | 696 |
|  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |
| Income tax | 49,229 | 4,825 | 21,403 | 11,739 | 6,413 | 4,722 | 127 |
| Current | 44,891 | 4,707 | 18,606 | 10,662 | 6,184 | 4,610 | 123 |
| Deferred | 4,338 | 118 | 2,798 | 1,077 | 229 | 112 | 4 |
| Net GST remittance (\% of sales) | 1.3 | 1.3 | 1.2 | 1.4 | 1.0 | 1.5 | 0.9 |
| Net GST remittance '000 \$ | 85,846 | 6,897 | 34,200 | 25,264 | 10,211 | 7,827 | 152 |


| Table 3 | Economic Impact Study - |  | Financial Characteristics Summary by Region, |  |  | , 2000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 2 : Comparison Group |  |  |  |  |  |  |  |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 9,558 | 816 | 2,358 | 2,983 | 1,741 | 1,600 | 60 |
| Total Employment (ALUs) | 83,868 | 7,548 | 22,142 | 23,397 | 16,742 | 13,457 | 582 |
| ALU/business | 8.8 | 9.2 | 9.4 | 7.8 | 9.6 | 8.4 | 9.7 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |
| Total Sales | 6,829,923 | 505,382 | 1,610,780 | 2,432,838 | 1,193,170 | 1,034,180 | 53,573 |
| Assets | 4,584,592 | 329,520 | 1,081,397 | 1,574,672 | 860,420 | 704,007 | 34,577 |
| Liabilities | 3,552,115 | 268,638 | 806,159 | 1,236,167 | 641,893 | 570,309 | 28,949 |
| Equity | 1,032,477 | 60,882 | 275,238 | 338,505 | 218,527 | 133,697 | 5,628 |
| Net income | 140,939 | 6,975 | 36,098 | 46,866 | 35,212 | 15,492 | 295 |
| Net Income (Profit) | 326,732 | 23,344 | 79,346 | 115,515 | 61,389 | 45,611 | 1,527 |
| Net Income (Loss) | -185,793 | -16,369 | -43,248 | -68,648 | -26,176 | -30,120 | -1,232 |
| Net Income (Profit) (counts) | 5,779 | 480 | 1,493 | 1,790 | 1,082 | 898 | 36 |
| Net Income (Loss) (counts) | 3,779 | 336 | 865 | 1,193 | 659 | 702 | 24 |
|  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |
| Gross Margin (=Gross Profit/Sales)(\%) | 46.6 | 42.8 | 43.1 | 46.4 | 50.5 | 50.1 | 38.1 |
| Sales per dollar of Assets | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.5 | 1.5 |
| Sales/Employee \$ | 81,437 | 66,957 | 72,749 | 103,982 | 71,267 | 76,851 | 91,974 |
| Return on equity <br> (=Net income/Equity) (\%) | 13.7 | 11.5 | 13.1 | 13.8 | 16.1 | 11.6 | 5.2 |
| Financial leverage (=Liabilities / Equity) | 3.4 | 4.4 | 2.9 | 3.7 | 2.9 | 4.3 | 5.1 |
| Sales/business '000 \$ | 715 | 619 | 683 | 816 | 685 | 646 | 893 |
|  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |
| Income tax | 316,891 | 65,585 | 44,881 | 64,698 | 68,589 | 68,219 | 4,920 |
| Current | 294,863 | 57,596 | 42,832 | 56,989 | 65,783 | 70,197 | 1,467 |
| Deferred | 22,028 | 7,988 | 2,049 | 7,709 | 2,806 | -1,978 | 3,454 |
| Net GST remittance (\% of sales) | 1.3 | 1.3 | 1.2 | 1.4 | 1.0 | 1.5 | 0.9 |
| Net GST remittance '000 \$ | 88,789 | 6,722 | 19,974 | 34,546 | 12,290 | 14,996 | 488 |



| Table 3 | Economic Impact Study - Financial Characteristics Summary by Region, |  |  |  |  | 2001 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 2 : Comparison Group |  |  |  |  |  |  |  |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 8,840 | 747 | 2,209 | 2,733 | 1,613 | 1,482 | 56 |
| Total Employment (ALUs) | 79,595 | 7,246 | 20,757 | 20,249 | 18,022 | 12,853 | 468 |
| ALU/business | 9.0 | 9.7 | 9.4 | 7.4 | 11.2 | 8.7 | 8.4 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |
| Total Sales | 6,888,747 | 520,249 | 1,646,720 | 2,390,308 | 1,222,731 | 1,047,510 | 61,231 |
| Assets | 4,280,833 | 334,014 | 1,046,490 | 1,318,445 | 863,527 | 672,623 | 45,734 |
| Liabilities | 3,284,864 | 272,962 | 765,663 | 1,038,248 | 623,188 | 548,659 | 36,145 |
| Equity | 995,969 | 61,052 | 280,827 | 280,197 | 240,340 | 123,964 | 9,589 |
| Net income | 176,027 | 5,341 | 51,679 | 64,591 | 40,073 | 12,848 | 1,494 |
| Net Income (Profit) | 354,488 | 23,818 | 93,645 | 121,090 | 67,089 | 46,059 | 2,786 |
| Net Income (Loss) | -178,461 | -18,477 | -41,966 | -56,499 | -27,016 | -33,211 | -1,292 |
| Net Income (Profit) (counts) | 5,578 | 461 | 1,502 | 1,717 | 1,034 | 830 | 34 |
| Net Income (Loss) (counts) | 3,262 | 286 | 707 | 1,016 | 579 | 652 | 22 |
|  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Gross Margin } \\ (=\text { Gross Profit/Sales)(\%) } \end{array} \end{aligned}$ | 46.0 | 42.8 | 41.7 | 46.0 | 50.7 | 49.4 | 41.3 |
| Sales per dollar of Assets | 1.6 | 1.6 | 1.6 | 1.8 | 1.4 | 1.6 | 1.3 |
| Sales/Employee \$ | 86,547 | 71,797 | 79,332 | 118,046 | 67,847 | 81,499 | 130,851 |
| Return on equity (=Net income/Equity) | 17.7 | 8.7 | 18.4 | 23.1 | 16.7 | 10.4 | 15.6 |
| Financial leverage (=Liabilities / Equity) | 3.3 | 4.5 | 2.7 | 3.7 | 2.6 | 4.4 | 3.8 |
| Sales/business '000 \$ | 779 | 696 | 745 | 875 | 758 | 707 | 1,093 |
|  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |
| Income tax | 316,110 | 53,491 | 67,276 | 69,738 | 58,713 | 68,025 | -1,133 |
| Current | 302,967 | 55,904 | 37,237 | 68,822 | 66,834 | 75,814 | -1,644 |
| Deferred | 13,143 | -2,412 | 30,039 | 916 | -8,121 | -7,789 | 511 |
| Net GST remittance (\% of sales) | 1.4 | 1.4 | 1.3 | 1.5 | 1.1 | 1.5 | 1.0 |
| Net GST remittance '000 \$ | 93,687 | 7,283 | 21,078 | 35,616 | 13,572 | 15,922 | 625 |



| Table 3 | Economic Impact Study - Financial Characteristics Summary by Region, |  |  |  |  | 2002 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 2 : Comparison Group |  |  |  |  |  |  |  |
|  | Canada | Atlantic | Quebec | Ontario | Prairies | British Columbia | Territories |
| \# of businesses | 8,238 | 641 | 2,112 | 2,673 | 1,443 | 1,331 | 38 |
| Total Employment (ALUs) | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |
| Total Sales | 6,055,117 | 400,931 | 1,464,262 | 2,179,377 | 1,034,520 | 921,653 | 54,374 |
| Assets | 4,027,450 | 308,599 | 980,590 | 1,377,676 | 759,606 | 557,871 | 43,108 |
| Liabilities | 2,960,635 | 242,616 | 658,235 | 1,032,191 | 536,426 | 459,102 | 32,065 |
| Equity | 1,066,815 | 65,982 | 322,355 | 345,485 | 223,179 | 98,770 | 11,043 |
| Net income | 190,003 | 9,643 | 53,917 | 46,393 | 53,113 | 24,348 | 2,589 |
| Net Income (Profit) | 347,928 | 23,208 | 93,490 | 112,924 | 71,687 | 43,809 | 2,812 |
| Net Income (Loss) | -157,925 | -13,565 | -39,573 | -66,530 | -18,574 | -19,461 | -222 |
| Net Income (Profit) (counts) | 5,198 | 410 | 1,448 | 1,641 | 915 | 753 | 31 |
| Net Income (Loss) (counts) | 3,040 | 231 | 664 | 1,032 | 528 | 578 | 7 |
|  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |
| Gross Margin (=Gross Profit/Sales)(\%) | 48.1 | 46.5 | 43.5 | 48.1 | 53.3 | 50.3 | 48.3 |
| Sales per dollar of Assets | 1.5 | 1.3 | 1.5 | 1.6 | 1.4 | 1.7 | 1.3 |
| Sales/Employee \$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Return on equity (=Net income/Equity) | 17.8 | 14.6 | 16.7 | 13.4 | 23.8 | 24.7 | 23.4 |
| Financial leverage (=Liabilities / Equity) | 2.8 | 3.7 | 2.0 | 3.0 | 2.4 | 4.6 | 2.9 |
| Sales/business '000 \$ | 735 | 625 | 693 | 815 | 717 | 692 | 1,431 |
|  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |
| Income tax | 51,905 | 1,937 | 18,255 | 15,795 | 8,894 | 6,656 | 367 |
| Current | 51,648 | 2,544 | 17,230 | 15,961 | 8,526 | 7,148 | 237 |
| Deferred | 257 | -608 | 1,025 | -166 | 368 | -492 | 130 |
| Net GST remittance (\% of sales) | 1.4 | 1.4 | 1.3 | 1.5 | 1.1 | 1.6 | 1.1 |
| Net GST remittance '000 \$ | 82,350 | 5,693 | 18,889 | 32,037 | 10,862 | 14,562 | 571 |

Table 4 Economic Impact Study - Financial Characteristics Summary by NAICS, 1998


Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).

Table 4 Economic Impact Study - Financial Characteristics Summary by NAICS, 1998

| Series 2 : Comparison Group |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Manufacturing | Retail Trade | Transportation and Warehousing | Accommod. and Food Services | Professional, Scientific and Technical Services | Agriculture, Forestry, Fishing \& Hunting and Construction | Group A (1) | Group B (2) |
| \# of businesses | 7,751 | 1,085 | 1,151 | 696 | 1,134 | 508 | 931 | 1,042 | 1,204 |
| Total Employment (ALUs) | 70,354 | 10,274 | 7,515 | 4,871 | 18,508 | 3,593 | 5,767 | 9,875 | 9,951 |
| ALU/business | 9.1 | 9.5 | 6.5 | 7.0 | 16.3 | 7.1 | 6.2 | 9.5 | 8.3 |
|  |  |  |  |  |  |  |  |  |  |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |  |  |
| Total Sales | 5,533,470 | 934,311 | 905,806 | 445,102 | 643,262 | 318,517 | 674,356 | 602,784 | 1,009,330 |
| Assets | 3,306,732 | 596,655 | 373,033 | 264,718 | 325,172 | 193,669 | 372,416 | 602,724 | 578,344 |
| Liabilities | 2,513,278 | 445,130 | 316,921 | 201,734 | 274,377 | 136,304 | 253,531 | 461,225 | 424,056 |
| Equity | 793,454 | 151,525 | 56,112 | 62,984 | 50,795 | 57,365 | 118,885 | 141,499 | 154,288 |
| Net income | 158,122 | 30,096 | 10,940 | 12,718 | 12,746 | 14,054 | 24,628 | 33,289 | 19,652 |
| Net Income (Profit) | 255,386 | 47,561 | 24,768 | 18,762 | 22,898 | 23,492 | 34,134 | 46,176 | 37,594 |
| Net Income (Loss) | -97,264 | -17,465 | -13,828 | -6,044 | -10,153 | -9,439 | -9,506 | -12,887 | -17,943 |
| Net Income (Profit) (counts) | 5,061 | 736 | 734 | 442 | 650 | 346 | 657 | 684 | 812 |
| Net Income (Loss) (counts) | 2,690 | 349 | 417 | 254 | 484 | 162 | 274 | 358 | 392 |
|  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |
| (=Gross Profit/Sales)(\%) |  | 27.3 | 29.1 | 8.0 | 45.3 | 16.4 | 19.3 | 14.8 | 24.3 |
| Sales per dollar of Assets | 1.7 | 1.6 | 2.4 | 1.7 | 2.0 | 1.6 | 1.8 | 1.0 | 1.7 |
| Sales/Employee \$ | 78,652 | 90,938 | 120,536 | 91,383 | 34,756 | 88,644 | 116,931 | 61,045 | 101,427 |
| Return on equity <br> (=Net income/Equity) (\%) | 19.9 | 19.9 | 19.5 | 20.2 | 25.1 | 24.5 | 20.7 | 23.5 | 12.7 |
| Financial leverage |  |  |  |  |  |  |  |  |  |
| (=Liabilities / Equity) | 3.2 | 2.9 | 5.6 | 3.2 | 5.4 | 2.4 | 2.1 | 3.3 | 2.7 |
| Sales/business '000 \$ | 714 | 861 | 787 | 640 | 567 | 627 | 724 | 578 | 838 |
|  |  |  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |  |  |
| Income tax | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a |
| Current | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Deferred | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Net GST remittance (\% of sales) | 1.3 | 0.8 | 0.6 | 1.1 | 3.6 | 2.9 | 0.9 | 1.6 | 1.1 |
| Net GST remittance 0000 \$ | 73,042 | 7,007 | 5,525 | 4,718 | 23,350 | 9,269 | 6,272 | 9,403 | 10,901 |


Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).

 Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration)

|  | Total | Manufacturing | Retail Trade | Transportation and Warehousing | Accommod. and Food Services | Professional, Scientific and Technical Services | Agriculture, Forestry, Fishing \& Hunting and Construction | Group A (1) | Group B (2) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# of businesses | 9,061 | 1,274 | 1,331 | 807 | 1,403 | 582 | 1,001 | 1,225 | 1,438 |
| Total Employment (ALUs) | 80,906 | 11,574 | 8,019 | 5,268 | 19,925 | 4,012 | 6,804 | 12,305 | 12,999 |
| ALU/business | 8.9 | 9.1 | 6.0 | 6.5 | 14.2 | 6.9 | 6.8 | 10.0 | 9.0 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |  |  |
| Total Sales | 6,357,377 | 1,095,399 | 1,010,186 | 450,082 | 765,508 | 376,880 | 741,857 | 683,386 | 1,234,079 |
| Assets | 3,902,473 | 701,755 | 421,076 | 276,624 | 421,460 | 254,436 | 434,911 | 657,816 | 734,396 |
| Liabilities | 2,940,764 | 502,396 | 344,399 | 212,570 | 359,409 | 184,051 | 294,378 | 508,140 | 535,421 |
| Equity | 961,710 | 199,359 | 76,677 | 64,054 | 62,051 | 70,385 | 140,533 | 149,676 | 198,975 |
| Net income | 224,602 | 36,765 | 17,292 | 9,008 | 9,847 | 13,121 | 27,334 | 72,259 | 38,975 |
| Net Income (Profit) | 340,915 | 53,343 | 26,876 | 19,921 | 26,028 | 31,234 | 37,893 | 92,316 | 53,304 |
| Net Income (Loss) | -116,313 | -16,578 | -9,584 | -10,913 | -16,181 | -18,113 | -10,559 | -20,057 | -14,329 |
| Net Income (Profit) (counts) | 5,860 | 882 | 844 | 502 | 759 | 394 | 659 | 802 | 1,018 |
| Net Income (Loss) (counts) | 3,201 | 392 | 487 | 305 | 644 | 188 | 342 | 423 | 420 |
|  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |
| (=Gross Profit/Sales)(\%) |  | 36.7 | 31.9 | 74.5 | 55.5 | 70.2 | 42.8 | 67.9 | 40.0 |
| Sales per dollar of Assets | 1.6 | 1.6 | 2.4 | 1.6 | 1.8 | 1.5 | 1.7 | 1.0 | 1.7 |
| Sales/Employee \$ | 78,577 | 94,645 | 125,982 | 85,432 | 38,419 | 93,941 | 109,027 | 55,536 | 94,936 |
| Return on equity (=Net income/Equity) (\%) | 23.4 | 18.4 | 22.6 | 14.1 | 15.9 | 18.6 | 19.5 | 48.3 | 19.6 |
| Financial leverage =Liabilities / Equity) | 3.1 | 2.5 | 4.5 | 3.3 | 5.8 | 2.6 | 2.1 | 3.4 | 2.7 |
| Sales/business '000 \$ | 702 | 860 | 759 | 558 | 546 | 648 | 741 | 558 | 858 |
|  |  |  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |  |  |
| Income tax | 251,797 | 86,824 | 3,541 | 9,112 | -151 | 10,609 | 32,149 | 52,644 | 57,070 |
| Current | 256,844 | 77,943 | 3,258 | 8,585 | 4,593 | 10,817 | 31,288 | 57,911 | 62,448 |
| Deferred | -5,047 | 8,880 | 283 | 526 | -4,744 | -208 | 860 | -5,267 | -5,378 |
| Net GST remittance (\% of sales) | 1.3 | 0.7 | 0.6 | 1.0 | 3.6 | 2.8 | 0.9 | 1.8 | 1.1 |
| Net GST remittance '000 \$ | 85,189 | 7,230 | 6,162 | 4,681 | 27,788 | 10,477 | 6,825 | 11,959 | 13,822 |


Educational Services and Arts, Entertainment and Recreation
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).


Educational Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).

| Table 4 Economic Impact Study - Financial Characteristics Summary by NAICS, 2000 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 2 : Comparison Group |  |  |  |  |  |  |  |  |  |
|  | Total | Manufacturing | Retail Trade | Transportation and Warehousing | Accommod. and Food Services | Professional, Scientific and Technical Services | Agriculture, Forestry, Fishing \& Hunting and Construction | Group A (1) | Group B (2) |
| \# of businesses | 9,558 | 1,338 | 1,383 | 855 | 1,494 | 620 | 1,067 | 1,285 | 1,516 |
| Total Employment (ALUs) | 83,868 | 12,903 | 8,081 | 4,180 | 21,224 | 4,687 | 7,282 | 12,641 | 12,870 |
| ALU/business | 8.8 | 9.6 | 5.8 | 4.9 | 14.2 | 7.6 | 6.8 | 9.8 | 8.5 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |  |  |
| Total Sales | 6,829,923 | 1,195,765 | 1,059,905 | 475,926 | 808,651 | 444,590 | 823,036 | 743,034 | 1,279,018 |
| Assets | 5,404,592 | 926,354 | 454,270 | 316,126 | 445,003 | 372,199 | 493,057 | 1,555,570 | 842,014 |
| Liabilities | 3,652,115 | 686,880 | 397,946 | 249,439 | 395,886 | 233,658 | 359,672 | 688,643 | 639,991 |
| Equity | 1,752,477 | 239,474 | 56,323 | 66,686 | 49,118 | 138,541 | 133,385 | 866,927 | 202,023 |
| Net income | 315,939 | 15,725 | 6,648 | 16,363 | 6,379 | 1,671 | 26,306 | 205,488 | 37,360 |
| Net Income (Profit) | 501,732 | 61,598 | 25,010 | 26,007 | 26,701 | 33,275 | 41,653 | 228,038 | 59,449 |
| Net Income (Loss) | -185,793 | -45,874 | -18,362 | -9,645 | -20,322 | -31,604 | -15,347 | -22,550 | -22,089 |
| Net Income (Profit) (counts) | 5,779 | 836 | 796 | 521 | 741 | 388 | 712 | 815 | 970 |
| Net Income (Loss) (counts) | 3,779 | 502 | 587 | 334 | 753 | 232 | 355 | 470 | 546 |
|  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |
| (=Gross Profit/Sales)(\%) |  | 36.1 | 30.0 | 72.6 | 54.4 | 64.4 | 41.9 | 68.5 | 39.5 |
| Sales per dollar of Assets | 1.3 | 1.3 | 2.3 | 1.5 | 1.8 | 1.2 | 1.7 | 0.5 | 1.5 |
| Sales/Employee \$ | 81,437 | 92,670 | 131,154 | 113,862 | 38,101 | 94,865 | 113,023 | 58,781 | 99,380 |
| Return on equity (=Net income/Equity) (\%) | 18.0 | 6.6 | 11.8 | $\mathrm{n} / \mathrm{m}$ | 13.0 | 1.2 | 19.7 | 23.7 | 18.5 |
| Financial leverage |  |  |  |  |  |  |  |  |  |
| (=Liabilities / Equity) | 2.1 | 2.9 | 7.1 | 3.7 | 8.1 | 1.7 | 2.7 | 0.8 | 3.2 |
| Sales/business '000 \$ | 715 | 894 | 766 | 557 | 541 | 717 | 771 | 578 | 844 |
|  |  |  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |  |  |
| Income tax | 316,891 | 105,889 | 5,902 | 16,481 | 5,205 | 17,264 | 43,597 | 30,663 | 91,891 |
| Current | 294,863 | 101,637 | 5,737 | 11,973 | 4,571 | 17,912 | 34,085 | 27,143 | 91,804 |
| Deferred | 22,028 | 4,252 | 164 | 4,508 | 633 | -648 | 9,512 | 3,519 | 87 |
| Net GST remittance (\% of sales) | 1.3 | 0.8 | 0.6 | 0.9 | 3.6 | 2.7 | 0.9 | 1.5 | 1.1 |
| Net GST remittance '000 \$ | 88,789 | 9,566 | 6,253 | 4,379 | 29,435 | 12,048 | 7,243 | 11,071 | 14,453 |


Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).

Table 4 Economic Impact Study - Financial Characteristics Summary by NAICS, 2001

|  | Total | Manufacturing | Retail Trade | Transportation and Warehousing | Accommod. and Food Services | Professional, Scientific and Technical Services | Agriculture, Forestry, Fishing \& Hunting and Construction | Group A (1) | Group B (2) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# of businesses | 8,569 | 1,212 | 1,271 | 766 | 1,372 | 570 | 967 | 1,110 | 1,301 |
| Total Employment (ALUs) | 85,482 | 15,626 | 8,783 | 4,647 | 19,923 | 6,576 | 7,065 | 11,538 | 11,323 |
| ALU/business | 10.0 | 12.9 | 6.9 | 6.1 | 14.5 | 11.5 | 7.3 | 10.4 | 8.7 |
| Financial Characteristics |  |  |  |  | 000 \$ |  |  |  |  |
| Total Sales | 7,154,287 | 1,315,668 | 1,211,555 | 516,195 | 865,412 | 503,757 | 769,155 | 792,310 | 1,180,236 |
| Assets | 3,923,535 | 807,335 | 457,579 | 255,668 | 397,663 | 384,792 | 446,608 | 559,076 | 614,815 |
| Liabilities | 3,359,486 | 659,330 | 402,184 | 215,732 | 420,722 | 275,088 | 367,598 | 502,550 | 516,281 |
| Equity | 564,049 | 148,004 | 55,395 | 39,936 | -23,059 | 109,704 | 79,010 | 56,525 | 98,534 |
| Net income | -21,254 | 18,293 | 4,831 | 9,708 | -9,566 | -74,640 | 21,255 | -3,303 | 12,168 |
| Net Income (Profit) | 293,258 | 62,750 | 28,366 | 20,748 | 22,906 | 29,813 | 37,132 | 43,876 | 47,666 |
| Net Income (Loss) | -314,512 | -44,458 | -23,535 | -11,040 | -32,472 | -104,453 | -15,877 | -47,179 | -35,499 |
| Net Income (Profit) (counts) | 5,107 | 788 | 750 | 456 | 613 | 329 | 641 | 714 | 816 |
| Net Income (Loss) (counts) | 3,462 | 424 | 521 | 310 | 759 | 241 | 326 | 396 | 485 |
|  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |
| (=Gross Profit/Sales)(\%) |  | 34.2 | 30.1 | 71.0 | 53.0 | 57.0 | 44.0 | 65.8 | 37.8 |
| Sales per dollar of Assets | 1.8 | 1.6 | 2.6 | 2.0 | 2.2 | 1.3 | 1.7 | 1.4 | 1.9 |
| Sales/employee \$ | 83,694 | 84,196 | 137,940 | 111,082 | 43,437 | 76,602 | 108,874 | 68,669 | 104,232 |
| Return on equity <br> (=Net income/Equity) (\%) | -3.8 | 12.4 | 8.7 | 24.3 | $\mathrm{n} / \mathrm{m}$ | n/m | 26.9 | -5.8 | 12.3 |
| Financial leverage (=Liabilities / Equity) | 6.0 | 4.5 | 7.3 | 5.4 | $\mathrm{n} / \mathrm{m}$ | 2.5 | 4.7 | 8.9 | 5.2 |
| Sales/business '000 \$ | 835 | 1,086 | 953 | 674 | 631 | 884 | 795 | 714 | 907 |
|  |  |  |  |  |  |  |  |  |  |
| Tax |  |  |  |  | 000 \$ |  |  |  |  |
| Income tax | 72,985 | 9,948 | 4,933 | 3,515 | 3,329 | 2,480 | 6,604 | 15,812 | 26,365 |
| Current | 63,378 | 8,836 | 4,703 | 3,121 | 3,171 | 1,519 | 6,212 | 9,753 | 26,064 |
| Deferred | 9,607 | 1,111 | 229 | 395 | 159 | 961 | 392 | 6,059 | 301 |
| Net GST remittance (\% of sales) | 1.4 | 0.9 | 0.7 | 0.9 | 3.7 | 2.7 | 0.9 | 1.7 | 1.2 |
| Net GST remittance '000 \$ | 97,298 | 11,183 | 7,875 | 4,749 | 31,934 | 13,601 | 7,230 | 13,152 | 13,691 |


Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).



Services and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).

Table 4 Economic Impact Study - Financial Characteristics Summary by NAICS, 2002
Series 2 : Comparison Group

|  | Total | Manufacturing | Retail Trade | Transportation and Warehousing | Accommod. and Food Services | Professional, Scientific and Technical Services | Agriculture, Forestry, Fishing \& Hunting and Construction | Group A (1) | Group B (2) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# of businesses | 8,238 | 1,110 | 1,262 | 742 | 1,415 | 518 | 972 | 1,062 | 1,157 |
| Total Employment (ALUs) |  | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |  |  |
| Total Sales | 6,055,117 | 1,018,354 | 992,629 | 457,615 | 834,704 | 390,516 | 814,195 | 660,121 | 886,982 |
| Assets | 4,027,450 | 700,439 | 417,532 | 381,720 | 400,793 | 293,297 | 485,633 | 736,085 | 611,952 |
| Liabilities | 2,960,635 | 506,490 | 344,178 | 243,850 | 349,298 | 206,279 | 316,380 | 557,095 | 437,065 |
| Equity | 1,066,815 | 193,949 | 73,354 | 137,870 | 51,495 | 87,018 | 169,253 | 178,989 | 174,887 |
| Net income | 190,003 | 25,391 | 14,963 | 7,953 | 14,079 | 5,775 | 36,629 | 46,533 | 38,680 |
| Net Income (Profit) | 347,928 | 66,024 | 29,538 | 20,739 | 34,026 | 31,706 | 47,047 | 66,707 | 52,141 |
| Net Income (Loss) | -157,925 | -40,633 | -14,575 | -12,786 | -19,947 | -25,931 | -10,418 | -20,174 | -13,461 |
| Net Income (Profit) (counts) | 5,198 | 694 | 751 | 467 | 809 | 336 | 665 | 703 | 773 |
| Net Income (Loss) (counts) | 3,040 | 416 | 511 | 275 | 606 | 182 | 307 | 359 | 384 |
|  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |
| (=Gross Profit/Sales)(\%) |  | 36.9 | 30.4 | 70.8 | 54.5 | 67.5 | 41.1 | 70.2 | 44.6 |
| Sales per dollar of Assets | 1.5 | 1.5 | 2.4 | 1.2 | 2.1 | 1.3 | 1.7 | 0.9 | 1.4 |
| Sales/Employee \$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Return on equity (=Net income/Equity) (\%) | 17.8 | 13.1 | 20.4 | 5.8 | 27.3 | 6.6 | 21.6 | $\mathrm{n} / \mathrm{m}$ | 22.1 |
| Financial leverage (=Liabilities / Equity) | 2.8 | 2.6 | 4.7 | 1.8 | 6.8 | 2.4 | 1.9 | 3.1 | 2.5 |
| Sales/business '000 \$ | 735 | 917 | 787 | 617 | 590 | 754 | 838 | 622 | 767 |
|  |  |  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |  |  |
| Income tax | 51,905 | 10,709 | 4,031 | 3,929 | 4,926 | 6,089 | 6,049 | 8,748 | 7,423 |
| Current | 51,648 | 10,231 | 4,055 | 3,670 | 5,189 | 6,206 | 6,494 | 8,447 | 7,355 |
| Deferred | 257 | 478 | -24 | 260 | -263 | -117 | -445 | 301 | 68 |
| Net GST remittance (\% of sales) | 1.4 | 0.8 | 0.6 | 0.9 | 3.7 | 2.8 | 1.0 | 1.6 | 1.2 |
| Net GST remittance '000 \$ | 82,350 | 7,638 | 6,055 | 4,027 | 30,801 | 10,739 | 7,816 | 10,694 | 10,644 |


and Arts, Entertainment and Recreation.
Group B contains the following NAICS sectors : Wholesale Trade, Management of Companies and businesses, Health Care and Social Assistance, Other Services (including Public Administration).


Table 5 CSBF Financial and Borrowers Characteristics (1999-2000) for 1999




| Table 5 CSBF Financial and Borrowers Characteristics (1999-2000) for 2002 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Franchise | Non Franchise | Total | Purchase or improvements of real properties or immovables (25) | Leasehold for new improvements <br> (26) and purchasing existing improvements (27) | $\begin{aligned} & \text { Equipment (28) } \begin{array}{c} \text { and } \\ \text { Software (29) } \end{array} \end{aligned}$ | Total | Chartered Banks | Credit Union | Caisses Populaires | Other institutions |
| \# of businesses | 10,024 | 1,283 | 8,741 | 10,009 | 1,431 | 758 | 7,820 | 10,024 | 7,412 | 1,962 | 329 | 321 |
| Total Employment (ALUs) |  | n/a | n/a |  | n/a | n/a | n/a |  | n/a | n/a | n/a | n/a |
| Financial Characteristics |  |  |  |  |  | 000 \$ |  |  |  |  |  |  |
| Total Sales | 8,984,807 | 825,595 | 8,159,212 | 8,976,603 | 1,186,267 | 715,629 | 7,074,708 | 8,984,807 | 6,952,149 | 1,570,255 | 229,929 | 232,473 |
| Assets | 5,134,521 | 345,752 | 4,788,770 | 5,127,161 | 716,271 | 314,035 | 4,096,855 | 5,134,521 | 3,980,792 | 900,199 | 121,581 | 131,950 |
| Liabilities | 4,291,559 | 349,100 | 3,942,459 | 4,275,469 | 570,582 | 282,753 | 3,422,134 | 4,291,559 | 3,364,582 | 694,269 | 114,613 | 118,095 |
| Equity | 842,962 | -3,348 | 846,310 | 851,692 | 145,689 | 31,281 | 674,721 | 842,962 | 616,209 | 205,930 | 6,968 | 13,855 |
| Net income | 79,742 | 2,682 | 77,061 | 84,633 | 35,658 | 30,487 | 18,488 | 79,742 | 29,283 | 44,072 | 2,368 | 4,020 |
| Net Income (Profit) | 383,428 | 28,749 | 354,678 | 382,810 | 53,527 | 25,009 | 304,274 | 383,428 | 284,881 | 78,545 | 10,038 | 9,964 |
| Net Income (Loss) | -303,685 | -26,068 | -277,618 | -298,177 | -17,869 | 5,478 | -285,787 | -303,685 | -255,598 | -34,472 | -7,670 | -5,944 |
| Net Income (Profit) (counts) | 3,941 | 629 | 3,312 | 6,058 | 951 | 414 | 4,693 | 6,058 | 4,362 | 1,320 | 191 | 185 |
| Net Income (Loss) (counts) | 6,083 | 654 | 5,429 | 3,966 | 495 | 344 | 3,127 | 3,966 | 3,050 | 642 | 138 | 136 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Gross Profit/Sales)(\%) | 95.9 | 50.4 | 45.6 | 135.3 | 40.4 | 48.2 | 46.7 | 201.8 | 46.6 | 39.8 | 55.1 | 60.2 |
| Sales per dollar of Assets | 1.7 | 2.4 | 1.7 | 1.8 | 1.7 | 2.3 | 1.7 | 1.7 | 1.7 | 1.7 | 1.9 | 1.8 |
| Sales/employee \$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Return on equity |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Net income/Equity) (\%) | 9.5\% | $\mathrm{n} / \mathrm{m}$ | 9.1\% | 9.9\% | 24.5\% | $\mathrm{n} / \mathrm{m}$ | 2.7\% | 9.5\% | 4.8\% | 21.4\% | 34.0\% | 29.0\% |
| Financial leverage |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Liabilities / Equity) | 5.1 | $\frac{\mathrm{n} / \mathrm{m}}{643}$ | 4.7 | 5.0 89 | 3.9 | $\frac{\mathrm{n} / \mathrm{m}}{\mathrm{n} / 2}$ | 5.1 905 | 5.1 896 | 5.5 938 | 3.4 800 | 16.4 | 8.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tax |  |  |  |  |  | 000 \$ |  |  |  |  |  |  |
| Income tax | 51,383 | 2,916 | 48,467 | 51,252 | 8,407 | 1,289 | 41,556 | 00 | 00 | 00 | 00 | 00 |
| Current | 49,731 | 2,991 | 46,740 | 49,627 | 7,758 | 2,550 | 39,319 |  |  |  |  |  |
| Deferred | 1,652 | -074 | 1,727 | 1,624 | 649 | -1,262 | 2,237 |  |  |  |  |  |
| Net GST remittance (\% of sales) | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| Net GST remittance '000 \$ | 122,193 | 11,228 | 110,965 | 122,082 | 16,133 | 9,733 | 96,216 | 122,193 | 94,549 | 21,355 | 3,127 | 3,162 |

Table 6 Financial and Borrowers Characteristics (1999-2000) for 1998


Table 6 Financial and Borrowers Characteristics (1999-2000) for 1998


Table 6 Financial and Borrowers Characteristics (1999-2000) for 1999

| Table 6 Financial and Borrowers Characteristics (1999-2000) for 1999 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 1: Study Group |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Employment Size (\# of employees) |  |  |  |  | Firm Revenues (in dollars) |  |  |  |  |  |  | Business Age |  |  |  |  |
|  | Total | 1.4 | 5-19 | 20-49 | 50 or more | Total | 0-100000 | $\begin{aligned} & 100001- \\ & 250000 \end{aligned}$ | $\begin{gathered} 250001- \\ 500000 \end{gathered}$ | $\begin{aligned} & 500001- \\ & 1000000 \end{aligned}$ | $\begin{gathered} \hline 1,000,001- \\ 2,000,000 \end{gathered}$ | $\begin{gathered} \hline 2,000,001- \\ 6,000,000 \end{gathered}$ | Total | less than 1 year | 1 year to under 2 years | 2 years to under 3 years | more than 3 years |
| \# of businesses | 8,120 | 4,623 | 2,693 | 670 | 134 | 8,120 | 1,664 | 1,680 | 1,652 | 1,542 | 1,015 | 567 | 8,120 | 2,685 | 827 | 646 | 3,962 |
| Total Employment (ALUs) | 69,498 | 8,978 | 26,802 | 19,431 | 14,287 | 69,498 | 3,801 | 5,644 | 10,847 | 16,579 | 17,675 | 14,953 | 69,498 | 9,591 | 5,337 | 5,100 |  |
| ALU/business | 8.6 | 1.9 | 10.0 | 29.0 | 106.6 | 8.6 | 2.3 | 3.4 | 6.6 | 10.8 | 17.4 | 26.4 | 8.6 | 3.6 | 6.5 | 7.9 | 12.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Sales | 5,065,551 | 1,319,171 | 2,882,549 | 1,159,828 | 304,003 | 5,065,551 | 66,497 | 279,169 | 586,935 | 1,060,361 | 1,397,393 | 1,675,196 | 5,065,551 | 702,162 | 440,533 | 396,882 | 3,525,975 |
| Assets | 2,904,651 | 888,577 | 1,153,901 | 665,253 | 196,920 | 2,904,651 | 245,675 | 236,009 | 368,408 | 571,078 | 673,102 | 810,377 | 2,904,651 | 506,672 | 295,246 | 213,764 | 1,888,968 |
| Liabilities | 2,270,026 | 723,978 | 900,569 | 493,322 | 152,156 | 2,270,026 | 183,355 | 217,955 | 306,893 | 450,098 | 495,083 | 616,642 | 2,270,026 | 460,916 | 245,794 | 171,318 | 1,391,998 |
| Equity | 634,625 | 164,599 | 253,331 | 171,931 | 44,763 | 634,625 | 62,320 | 18,054 | 61,516 | 120,980 | 178,019 | 193,735 | 634,625 | 45,757 | 49,452 | 42,446 | 496,970 |
| Net income | 114,875 | 30,027 | 63,234 | 17,608 | 4,006 | 114,875 | -10,829 | 189 | 15,474 | 32,908 | 38,849 | 38,284 | 114,875 | -3,567 | 75 | 8,653 | 109,713 |
| Net Income (Profit) | 258,841 | 79,647 | 108,721 | 56,471 | 14,002 | 258,841 | 16,386 | 17,284 | 36,615 | 58,513 | 61,774 | 68,269 | 258,841 | 47,532 | 24,899 | 21,541 | 164,870 |
| Net Income (Loss) | -143,966 | -49,620 | -45,487 | -38,863 | -9,996 | -143,966 | -27,215 | -17,095 | -21,142 | -25,605 | -22,925 | -29,985 | -143,966 | -51,099 | -24,823 | -12,888 | -55,157 |
| Net Income (Profiti) (counts) | 5,135 | 2,614 | 1,919 | 510 |  | 4,944 | 621 | 895 | 1,088 | 1,098 | 790 | 452 | 5,066 | 1,152 | 503 | 452 |  |
| Net Income (Loss) (counts) | 2,985 | 2,009 | 774 | 160 | 42 | 3,176 | 1,043 | 785 | 564 | 444 | 225 | 115 | 3,054 | ${ }_{1}^{1,533}$ | 324 | 194 | 1,003 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Gross ProfitSales)(\%) |  | 51.4 | 44.2 | 41.5 | 45.8 |  | 61.0 | 67.1 | 61.5 | 51.2 | 42.8 | 34.5 |  | 51.1 | 49.1 | 50.9 | 43.4 |
| Sales per dollar of Assets | 1.7 | 1.5 | 2.0 | 1.7 | 1.5 | 1.7 | 0.3 | 1.2 | 1.6 | 1.9 | 2.1 | 2.1 | 1.7 | 1.4 | 1.5 | 1.9 |  |
| Sales/employee \$ | 72,888 | 146,930 | 85,163 | 59,690 | 21,278 | 72,888 | 17,497 | 49,462 | 54,112 | 63,959 | 79,062 | 112,029 | 72,888 | 73,207 | 82,551 | 77,824 | 71,274 |
| Retur on equity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ( $($ Nest income/Equity) (\%) | 18.1 | 18.2 | 25.0 | 10.2 | 8.9 | 18.1 | -17.4 | 1.0 | 25.2 | 27.2 | 21.8 | 19.8 | 18.1 | -7.8 | 0.2 | 20.4 | 22.1 |
| Financial leverage <br> (=Liabilities / Equity) | 3.6 | 4.4 | 3.6 | 2.9 | 3.4 | 3.6 | 2.9 | 12.1 | 5.0 | 3.7 | 2.8 | 3.2 | 3.6 | 10.1 | 5.0 | 4.0 | 2.8 |
| Saleslbusiness 000 \$ | 624 | 285 | 848 | 1,731 | 2,269 | 624 | 40 | 166 | 355 | 688 | 1,377 | 2,954 | 624 | 262 | 533 | 614 | 890 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tax | 000 \$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Income tax | 41,080 | 4,956 | 19,286 | 15,068 | 1,770 | 41,080 | 3,273 | 2,845 | 5,588 | 10,297 | 11,003 | 8,074 | 41,080 | 5,888 | 7,424 | 4,536 | 23,234 |
| Current | 43,197 | 13,866 | 17,869 | 10,075 | 1,387 | 43,197 | 2,580 | 2,672 | 5,286 | 9,840 | 9,828 | 12,991 | 43,197 | 5,735 | 2,431 | 4,355 | 30,676 |
| Deferred | -2,117 | -8,910 | 1,418 | 4,993 | 382 | -2,117 | 693 | 173 | 302 | 457 | 1,176 | -4,917 | -2,117 | 152 | 4,993 | 181 | -7,443 |
| Net GST remittance (\% of sales) <br> Net GST remitance 000 \$ |  |  |  |  |  |  | 0.4 298 | 1.6 4.602 | 1.7 ${ }^{1.881}$ | 1.6 |  |  | 1.3 67.878 | 1.3 9.409 | 1.39 | $\frac{1.3}{5.318}$ |  |
| Net GST remitance 000 \$ | 67,878 | 17,677 | 30,586 | 15,542 | 4,074 | 67,878 | 298 | 4,602 | 9,881 | 17,282 | 19,957 | 19,302 | 67,878 | 9,409 | 5,903 | 5,318 | 47,248 |

Table 6 Financial and Borrowers Characteristics (1999-2000) for 1999

| Series 2 : Comparison Group |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employment Size (\# of employees) |  |  |  |  | Firm Revenues (in dollars) |  |  |  |  |  |  | Business Age |  |  |  |  |
|  | Total | 1.4 | 5-19 | 20-49 | 50 or more | Total | 0-100 000 | $\begin{aligned} & 100001 \text { - } \\ & 250000 \end{aligned}$ | $\begin{array}{r} 250001- \\ 500000 \end{array}$ | $\begin{aligned} & 500001 \text { - } \\ & 1000000 \end{aligned}$ | $\begin{aligned} & 1,000,001 \text { - } \\ & 2,000,000 \end{aligned}$ | $\begin{gathered} 2,000,001- \\ 6,000,000 \end{gathered}$ | Total | less than 1 year | 1 year to under 2 years | 2 years to under 3 years | more than 3 years |
| \# of businesses | 9,061 | 4,698 | 3,484 | 705 | 174 | 9,061 | 1,196 | 1,904 | 2,137 | 1,851 | 1,237 | 736 | 9,061 | 441 | 407 | 367 | 7,846 |
| Total Employment (ALUs) | 80,906 | 10,360 | 34,488 | 20,059 | 15,999 | 80,906 | 8,150 | 6,963 | 12,037 | 18,350 | 22,067 | 13,340 | 80,906 | 1,775 | 2,261 | 2,291 | 74,579 |
| ALU/business | 8.9 | 2.2 | 9.9 | 28.5 | 91.9 | 8.9 | 6.8 | 3.7 | 5.6 | 9.9 | 17.8 | 18.1 | 8.9 | 4.0 | 5.6 | 6.2 | 9.5 |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Sales | 6,357,377 3,902.473 | $\frac{1,541,994}{1.028,770}$ | $\frac{3,205,134}{1,798.642}$ | 1,184,889 | 425,359 | 6,357,377 | 54,620 | 324,240 | 755,500 51637 | 1,284,815 | 1,698,539 | 2,239,662 | 6,357,377 | 151,076 | 173,394 | 198,092 | $5,834,815$ <br> $3,588,930$ |
| Liabilities | 2,940,764 | 842,463 | 1,340,495 | 536,997 | 220,809 | 2,940,764 | 114,740 | 265,923 | 417,946 | 616,976 | 636,612 | 888,568 | 2,940,764 | 95,374 | 91,904 | 97,899 | 2,685,587 |
| Equity | 961,710 | 186,306 | 458,147 | 216,959 | 100,297 | 961,710 | 27,624 | 32,482 | 98,425 | 234,079 | 191,132 | 377,967 | 961,710 | 7,273 | 4,460 | 16,633 | 933,343 |
| Net income | 224,602 | 40,017 | 90,451 | 45,094 | 49,040 | 224,602 | -4,397 | 3,419 | 19,410 | 42,575 | 61,331 | 102,264 | 224,602 | 657 | -3,218 | 2,077 | 225,086 |
| Net Income (Profit) | 340,915 | 80,959 | 139,656 | 64,596 | 55,703 | 340,915 | 9,657 | 19,857 | 39,277 | 66,618 | 81,889 | 123,616 | 340,915 | 10,131 | 7,060 | 8,173 | 315,550 |
| Net Income (Loss) | -116,313 | -40,942 | -49,206 | -19,502 | -6,663 | -116,313 | -14,055 | -16,438 | -19,867 | -24,043 | -20,558 | -21,352 | -116,313 | -9,475 | -10,278 | -6,096 | -90,464 |
| Net Income (Profit) (counts) | 5,860 | 2786 | 2,418 | 517 | 139 | 5,860 | 580 | 1,090 | 1,361 | 1,268 | 944 | 617 | 5,860 | 223 | 210 | 193 | 5,234 |
| Net Income (Loss) (counts) | 3,201 | 1912 | 1,066 | 188 | 35 | 3,201 | 616 | 814 | 776 | 583 | 293 | 119 | 3,201 | 218 | 197 | 174 | 2,612 |
| Financial Ratios |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Gross ProfitSales)(\%) |  | 0.5 | 0.4 | 0.5 | 0.6 |  | 0.7 | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 |  | 0.5 | 0.5 | 0.5 | 0.5 |
| Sales per dollar of Assets | 1.6 | 1.5 | 1.8 | 1.6 | 1.3 | 1.6 | 0.4 | 1.1 | 1.5 | 1.5 | 2.1 | 1.8 | 1.6 | 1.5 | 1.8 | 1.7 | 1.6 |
| Sales/Employee \$ | 78,577 | 148,838 | 92,934 | 59,070 | 26,587 | 78,577 | 6,702 | 46,569 | 57,951 | 78,582 | 78,755 | 150,923 | 78,577 | 85,105 | 76,676 | 86,462 | 78,237 |
| Return on equity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Net income/Equity) (\%) | 23.4\% | 21.5\% | 19.7\% | 20.8\% | 48.9\% | 23.4\% | -15.9\% | 10.5\% | 19.7\% | 18.2\% | 32.1\% | 27.1\% | 23.4\% | 9.0\% | $\mathrm{n} / \mathrm{m}$ | 12.5\% | 24.1\% |
| Financial leverage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Liabilities / Equity) | 3.1 | 4.5 | 2.9 | 2.5 | 2.2 | 3.1 | 4.2 | 8.2 | 4.2 | 2.6 | 3.3 | 2.4 | 3.1 | 13.1 | $\mathrm{n} / \mathrm{m}$ | 5.9 | 2.8 |
| Sales/business '000\$ | 702 | 328 | 920 | 1,681 | 2,445 | 702 | 46 | 170 | 354 | 694 | 1,373 | 3,043 | 702 | 343 | 426 | 540 | 744 |
| Tax |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Income tax | 251,797 | 113,446 | 90,479 | 34,650 | 13,222 | 251,797 | 20,384 | 19,223 | 29,673 | 38,789 | 69,983 | 73,744 | 251,797 | 1,406 | 893 | 1,622 | 247,876 |
| Current | 256,844 | 111,163 | 90,039 | 37,066 | 18,576 | 256,844 | 21,434 | 20,892 | 29,747 | 39,812 | 70,308 | 74,650 | 256,844 | 1,378 | 1,127 | 1,303 | 253,035 |
| Deferred | -5,047 | 2,284 | 440 | -2,417 | -5,354 | -5,047 | -1,050 | -1,669 | -74 | -1,023 | -325 | -906 | -5,047 | 28 | -234 | 319 | -5,159 |
| Net GST remittance (\% of sales) | 1.3 |  | 1.3 | 1.3 | 1.3 | 1.3 | 0.4 | 1.6 | 1.7 | 1.6 | 1.4 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Net GST remitance ${ }^{\circ} 000$ \$ | 85,189 | 20,663 | 42,949 | 15,878 | 5,700 | 85,189 | 245 | 5,345 | 12,719 | 20,940 | 24,257 | 25,805 | 85,189 | 2,024 | 2,323 | 2,654 | 78,187 |





Table 6 Financial and Borrowers Characteristics (1999-2000) for 2001


Table 6 Financial and Borrowers Characteristics (1999-2000) for 2002

|  |  |  |  |  |  |  |  | Series 1: S |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employment Size (\# of employees) |  |  |  | Firm Revenues (in dollars) |  |  |  |  |  |  | Business Age as per LEAP 2001 ${ }^{\text {a }}$ |  |  |  |  |
|  | $1-4$ | 5-19 | 20-49 | 50 or more | Total | 0-100000 | $\begin{gathered} 100001- \\ 250000 \end{gathered}$ | $\begin{gathered} 250001- \\ 500000 \end{gathered}$ | $\begin{aligned} & \hline 500001- \\ & 1000000 \end{aligned}$ | $\begin{gathered} \hline 1,000,001- \\ 2,000,000 \end{gathered}$ | $\begin{aligned} & \hline 2,000,001- \\ & 6,000,000 \end{aligned}$ | Total | less than 1 year | 1 year to under 2 years | 2 years to under 3 years | more than 3 years |
| \# of businesses | n/a | n/a | n/a | n/2 | $10024^{\text {b }}$ | 1,138 | 1,691 | 2,074 | 2,139 | 1,726 | 1,256 | 8,436 |  | 267 | 1,059 | 7,110 |
| Total Employment (ALUs) | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Financial Characteristics | 000 \$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Sales | n/a | n/a | n/a | n/a | 8,984,807 | 43,975 | 291,283 | 755,206 | 1,522,186 | 2,400,891 | 3,971,267 | 8,234,265 |  | 253,234 | 680,865 | 7,300,166 |
| Assets | n/a | n/a | n/a | n/a | 5,134,521 | 157,303 | 289,417 | 484,905 | 907,914 | 1,255,650 | 2,039,333 | 4,753,703 |  | 182,879 | 400,990 | 4,169,833 |
| Liabilities | n/a | n/a | n/a | n/a | 4,291,559 | 203,955 | 310,801 | 472,545 | 759,726 | 994,061 | 1,550,472 | 3,890,803 |  | 151,481 | 356,274 | 3,383,049 |
| Equity | n/a | n/a | n/a | n/a | 842,962 | -46,652 | -21,384 | 12,361 | 148,188 | 261,589 | 488,861 | 862,900 |  | 31,399 | 44,717 | 786,784 |
| Net income | n/a | n/a | n/a | n/a | 79,742 | -24,240 | -18,793 | -15,513 | 10,343 | 42,838 | 85,107 | 37,866 |  | -29,428 | -22,458 | 89,752 |
| Net Income (Profit) | n/a | n/a | n/a | n/a | 383,428 | 6,915 | 19,113 | 35,294 | 72,148 | 100,456 | 149,501 | 347,996 |  | 10,681 | 27,339 | 309,975 |
| Net Income (Loss) | n/a | n/a | n/a | n/a | -303,685 | -31,155 | -37,906 | -50,807 | -61,805 | -57,618 | -64,394 | -310,130 |  | -40,109 | -49,797 | -220,223 |
| Net Income (Profit) (counts) | n/a | n/a | n/a | n/a | 5,888 | 316 | 833 | 1,162 | 1,370 | 1,241 | 966 |  |  |  |  |  |
| Net Income (Loss) (counts) | n/a | n/a | n/a | n/a | 4,136 | 822 | 858 | 912 | 769 | 485 | 290 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Financial Ratios |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross Margin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Gross Profit/Sales)(\%) | n/2 | $\mathrm{n} / \mathrm{a}$ | n/a | n/a |  | 70.8 | 68.5 | 59.6 | 54.1 | 47.1 | 37.7 |  |  | 55.5 | 49.3 | 45.8 |
| Sales per dollar of Assets | n/a | n/a | n/a | n/a | 1.7 | 0.3 | 1.0 | 1.6 | 1.7 | 1.9 | 1.9 | 1.7 |  | 1.4 | 1.7 | 1.8 |
| Sales/employee \$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |  | n/a | n/a | n/a |
| Return on equity <br> (=Net income/Equity) (\%) | n/a | n/a | n/a | $\mathrm{n} / 2$ | 95 | $\mathrm{n} / \mathrm{m}$ | $\mathrm{n} / \mathrm{m}$ | $\mathrm{n} / \mathrm{m}$ | 70 | 16.4 | 174 | 4.4 |  | $\mathrm{n} / \mathrm{m}$ | $\mathrm{n} / \mathrm{m}$ | 114 |
| Financial leverage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (=Liabilities / Equity) | $\mathrm{n} / 2$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/2 | 5.1 | $\mathrm{n} / \mathrm{m}$ | $\mathrm{n} / \mathrm{m}$ | $\mathrm{n} / \mathrm{m}$ | 5.1 | 3.8 | 3.2 | 4.5 |  | 4.8 | 8.0 | 4.3 |
| Sales/business '000 \$ | n/a | n/a | n/a | n/a | 896 | 039 | 172 | 364 | 712 | 1,391 | 3,162 | 976 |  | 948 | 643 | 1,027 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tax |  |  |  |  |  |  |  |  |  | 000 \$ |  |  |  |  |  |  |
| Income tax | n/a | n/a | n/a | n/a | 51,383 | -550 | 1,342 | 3,510 | 7,371 | 15,389 | 24,322 | 43,986 |  | 1,887 | 1,335 | 40,765 |
| Current | n/a | n/a | n/a | n/a | 49,731 | -525 | 1,414 | 3,515 | 7,972 | 14,880 | 22,474 | 44,854 |  | 1,825 | 2,491 | 40,538 |
| Deferred | n/a | n/a | n/a | n/a | 1,652 | -25 | -73 | -5 | -601 | 508 | 1,848 | -867 |  | 62 | -1,156 | 227 |
| Net GST remittance (\% of sales) | n/a | n/a | n/a | n/a | 1.4 | 0.3 | 1.7 | 1.7 | 1.6 | 1.5 | 1.1 | 1.4 |  | 1.4 | 1.4 | 1.4 |
| Net GST remittance ' 000 \$ | n/a | n/a | n/a | n/a | 122,193 | 131 | 5,046 | 12,704 | 24,605 | 37,063 | 45,363 | 111,986 |  | 3,444 | 9,260 | 123,336 |

a) These statistics record financial information by business age as of 2001


[^1]| Table 7 Economic Impact Stud |  |  | - Entry and Exits by Employment Size |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 1 : Study Group |  |  |  |  |  |  |  |  |
| Employment Size | Business Life Status | Total of SME (no.) | $\begin{aligned} & \text { Exit } 1999 \\ & \text { (no.) } \end{aligned}$ | $\begin{aligned} & \text { Exit } 2000 \\ & \text { (no.) } \end{aligned}$ | ALIVE 2001 (no.) | Exit 1999 <br> (\%) | Exit 2000 <br> (\%) | ALIVE 2001 <br> (\%) |
|  |  |  |  |  |  |  |  |  |
| 1-4 ALU |  | $1,026$ | 79 | 105 | 691 | 7.7 | 10.2 | 67.4 |
|  | Born in 1998 |  |  |  |  |  |  |  |
|  | Born in 1999 | 3,237 | 449 | 460 | 2,328 | 13.9 | 14.2 | 71.9 |
|  | Born in 2000 | 1,230 | n/a | 297 | 933 | 0.0 | 24.2 | 75.9 |
| 5-19 ALU |  |  |  |  |  |  |  |  |
|  | Born in 1998 | 116 | 8 | 9 | 94 | 6.9 | 7.8 | 81.0 |
|  | Born in 1999 | 436 | 26 | 48 | 362 | 6.0 | 11.0 | 83.0 |
|  | Born in 2000 | 262 | n/a | 22 | 240 | 0.0 | 8.4 | 91.6 |
| 20-49 ALU |  |  |  |  |  |  |  |  |
|  | Born in 1998 | 14 | 0 | 1 | 13 | 0.0 | 7.1 | 92.9 |
|  | Born in 1999 | 52 | 1 | 5 | 46 | 1.9 | 9.6 | 88.5 |
|  | Born in 2000 | 56 | n/a | 2 | 54 | 0.0 | 3.6 | 96.4 |
| 50 and more ALU |  |  |  |  |  |  |  |  |
|  | Born in 1998 | 6 | 0 | 0 | 6 | 0.0 | 0.0 | 100.0 |
|  | Born in 1999 | 7 | 0 | 3 | 4 | 0.0 | 42.9 | 57.1 |
|  | Born in 2000 | 6 | n/a | 0 | 6 | 0.0 | 0.0 | 100.0 |



## APPENDIX I - Regression results

Note: the tables include entries for regression that were used in the analysis. Blank fields indicate regressions that were either not in-scope for this study, or not necessary to run to establish the study conclusions, or could not be run as indicated.

Significant at the 5\% level or better:
Significant at the 10\% level:
Insignificant:
insufficient number of observations:
coefficient not calculated
no symbol
italics or *
x
(blank)

The Territories did not have enough observations for meaningful regression results.

Similarly, NAICS 21, 55, 61 did not have enough observations for meaningful regression results.

Entries of tax data in the "98-02" fields are "99-02".




|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \# obs. | Employment | Sales | Operating profit | Net profit | Gross profit | Debt ratio | Current tax | Deferred tax | Return on Equity | Gross margin | Sales/Asset ratio | Return on Assets | Sales/Em ployee |
| Canada | 98-02 | 7055 | n/a | 42.7\% | \$ 13,500 | x |  | X | -\$1,600 | \$ 2,800 | 2.4\% | X |  | -1.2\% | n/a |
|  | 98-01 | 7441 | 19.1\% | 20.0\% | \$ 8,300 | x | \$ 44,600 | X | n/a | n/a |  | X | -8.4\% | -0.8\% | -5.8\% |
|  | 99-01 |  | 10.8\% | 13.1\% | 3800* |  | \$ 30,200 | X | X | x | 3.2\% |  |  | X |  |
| 1-4. | 98-02 | 2757 | n/a | 51.1\% | \$ 16,800 |  |  |  |  |  |  | X |  |  |  |
|  | 98-01 | 2632 | 11.6\% | 19.5\% | 3900* | -4225.384 | \$ 36,700 | $x$ |  |  | 4.8\% | $x$ | -8.6\% | x | x |
|  | 99-01 |  | 7.5\% | 16.3\% | x |  | \$ 21,200 | X | x | x | 5.9\% |  |  | x |  |
| 5-19. | 98-02 | 3549 | n/a | 37.4\% | \$ 8,500 |  |  |  |  |  |  | X |  |  |  |
|  | 98-01 | 3892 | 10.6\% | 11.4\% | \$ 7,600 | x | \$ 43,700 | x |  |  | 3.4\% | 0.9\% | -9.9\% | -1.6\% | -5.6\% |
|  | 99-01 |  | 9.3\% | 9.2\% | x |  | \$ 38,300 | X | -\$ 4,500 | x | -2.1\% |  |  | $x$ |  |
| 20-49. | 98-02 | 693 | n/a | 36.0\% | \$ 33,100 |  |  |  |  |  |  | X |  |  |  |
|  | 98-01 | 837 | 7.0\% | 17.8\% | X | X | X | 6.10\% |  |  | 5.1\% | X | -7.1\% | $x$ | X |
|  | 99-01 |  | 5.4\% | 11.6\% | X |  | 54100* | 7.03\% | \$ 7,900 | x | x |  |  | -3.0\% |  |
| 50+ | 98-02 | 56 | n/a | x | X |  |  |  |  |  |  | X |  |  |  |
|  | 98-01 | 80 | x | X | X | -59289.83* | -289300* | X |  |  | x | X | -10.1\% | x | $x$ |
|  | 99-01 |  | X | X | X |  | -\$ 398,400 | X | X | X | 26.8\% |  |  | X |  |




[^0]:    ${ }^{3}$ Return on Assets is sometimes called Return on Capital, which is identical. The capital of a business is equal to debt and equity capital, which in turn is equal, by definition to assets, as can be seen in the standard accounting equation Assets = Liabilities + Equity.

[^1]:    a) These statistics record financial information by business age as of 2001.
    b) These statistics were derived by linking CSBF borrowers to GIFI 2002.

