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Growth Firms Project:

Phase II Report

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A. ABSTRACT

Phase II of the Growth Firms project builds on the work done in Phase I by completing additional tabulations. The work in Phase II focussed on employment growth by firm age, the growth of start-ups and firm exits.

The results indicate that growth is concentrated in both very young firms and well established firms. Start-ups were mostly very small firms, and hyper and strong growth start-ups had significant contributions to employment creation. A comparison of two start-up cohorts suggests that start-ups operating under comparable expansionary periods of the business cycle had similar characteristics and performance. Firm exits were profiled over time and firms exiting in 1999 were broken down by firm age. Over the period 1983–1999, the number of exits were the most volatile in Ontario, and Quebec exits show a downward trend. Exits in the remaining regions showed a slightly increasing trend. One-third of firms exiting in 1999 were in their first year of operation, but nearly one-third of the jobs lost through these exits were in firms that were at least 13 years old.

B. INTRODUCTION

Industry Canada's Small Business Policy Branch has completed the second phase of its ongoing exploratory study of Growth Firms in Canada. The project aims to increase our knowledge of how wealth and jobs are created and so provide support for policy development.

The project uses a longitudinal, universe file, known as "LEAP/SAF," to measure firm growth over the medium term, using employment as the measure of growth. Specifically, employment is measured using Individual Labour Units (ILUs), which are counts of persons who receive a T4 slip. One ILU is equal to one person, regardless of how many hours the person worked. If an employee received more than one T4 slip, then his or her unit is distributed amongst the issuing firms in proportion to earnings. A firm's employment is the sum of its ILUs.[1]

To date, the project has focussed on private sector employer firms; firms operating in Government Services, Education and Health Industries were deemed to belong to the public sector and were tracked only to add to the aggregate of private sector employment. Key findings of the first phase of the project include:[2]

- The Canadian economy is a dynamic one: the churning of firms makes a significant net contribution to job creation;
- Growth is concentrated among a small number of firms: less than 7 percent of all firms were hyper or strong growth firms, but they were responsible for 56 percent of total net job creation between 1985 and 1999;
- The majority (63 percent) of hyper and strong growth firms were small companies: small businesses were an important engine of growth and more than offset the job losses by large firms from 1985-1999;
- Growth was evident across a large number of industries: no single industry was predisposed to growth.

The Phase II tabulations made use of the data base extended to 2000 and obtained additional tabulations on Firm Age, Start-ups and Firm Exits.

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[1] For a more complete discussion on ILUs and LEAP/SAF, please refer to Parsley, Chris and Erwin Dreessen (2003), "Growth Firms Project: Key Findings" available at: **http://strategis.ic.gc.ca/sbresearch/growthfirms/highlights**

[2] Parsley and Dreessen (2003).

Literature on firm growth often suggests that firm age is a key determinant of growth as it is central to learning models and strongly linked with the ability to acquire intellectual capital and develop networks.[3] However, it is not clear whether there is a unique relationship between high growth and age.[4] Data were tabulated by firm age to investigate the relationship between firm age and employment growth, and to determine if high growth is limited to a certain firm age.

Phase II further investigates the dynamics of the Canadian economy by examining firm start-ups and exits. Start-ups were tabulated to measure the job creation of the 1985 cohort over the subsequent 15 years and to compare the employment creation performance of two comparable cohorts. Tabulations also probed the characteristics of firm exits with tabulations by firm age, region, industry and size.

This paper presents the outcomes of Phase II in corresponding three sections. In each part, methodology is discussed first, followed by results.

C: PHASE II RESULTS

1. Firm Age

Methodology

LEAP/SAF does not contain a firm age variable, so one was constructed for firms that operated between 1983 and 2000 by subtracting their first year of operation from the final year of data, 2000. To produce a meaningful tabulation, firm age was constructed relative to 1996, using data from 1983 to 1996, and firm growth was measured between 1996 and 2000. Since these tabulations use a base year of 1996, the maximum firm age is '13 years or older'. To overcome confidentiality restrictions, firms were combined into pairs of annual cohorts.

Firms were categorized based on their employment growth between 1996 and 2000. Firms were labelled as hyper growth (firms with at least 150% growth in the number of employees), strong growth (firms with between 50% and 150% growth), slow growth (firms with positive growth less than 50%) or declining firms (negative growth). Tabulations were obtained by age, firm size and 2-digit SIC industry at the national level; regional results were obtained for the Atlantic Provinces, Quebec, Ontario, Prairies, and BC by firm size and 1-digit SIC industry. Firm size tabulations follow the SEPH standard (0.1–4.9, 5.0–19.9, 20.0–49.9, 50.0–99.9, 100.0–299.9, 300.0–499.9 and greater than 500.0 employees); in some tabulations, the largest three size categories were combined to include all firms with more than 100 employees, again to overcome confidentiality restrictions.

Results

a. Contribution to employment creation by firm age

The total number of firms operating in the private sector in 1996 was 772,000 and this number increased to 821,000 by 2000 (Figure 1). During these 4 years, 306,000 firms exited and 355,000 firm entered yielding net job creation of 487,000 jobs due to this churn. There were 466,000 firms that operated continuously over these

[3] See for example:

David S. Evans (1987), "The Relationship Between Firm Growth, Size, and Age: Estimates for 100 Manufacturing Industries," Journal of Industrial Economics (35), 567-581;

Per Davidsson (1991), "Continued Entrepreneurship: Ability, Need, and Opportunity as Determinants of Small Firm Growth," Journal of Business Venturing (6), 405-429; and,

Statistics Canada (2004). "Characteristics of Firms that Grow from Small to Medium Size: Synthesis Report," Unpublished.

[4] OECD (2002), "High Growth SMEs and Employment," 139 pages.

4 years and these firms created 674,000 jobs; total net job creation was 1.16 million jobs over these 4 years. Hyper and strong growth firms numbered 88,000, accounting for 19 percent of all continuing firms, and created nearly 1.29 million jobs; this more than compensated for the 1.25 million jobs lost by declining firms over this period.

Figure 2a indicates the distribution of continuing firms and their net jobs created by firm age. At the national level, between 1996 and 2000, young firms (those 1 or 2 years old) and well established firms (those that are 13 or older) were the most significant contributors to employment creation (Figure 2b). However, slow growth firms that were at least 13 years old contributed the most to employment creation of any single growth group.

Expressing net job creation relative to the number of firms in each age cohort and growth group also shows that the number of net ILUs created per firm increases with age (Figure 2C). Moreover, it reaffirms the conclusion that it is not solely the youngest firms that created jobs over this time period since growth firms of all vintages contribute to employment creation. The increasing trend with age is likely due, in part, to the correlation between age and size. Older hyper growth firms are likely larger than young hyper growth firms and therefore must create more jobs to meet the hyper growth criteria.

b. Contributions to employment creation by firm age and industry

The results in Figure 2b also hold for most industries: both the youngest and well-established firms were the most significant contributors to job creation. The most notable exception was Primary Industries where firms that were '13 or older' accounted for a higher proportion of firms than on average. Consequently, these well-established firms had more of an impact on job creation and destruction than in the industry aggregate.

The other industry that differed from the industry aggregate was Accommodation, Food and Beverages. In this industry, firms that were 3 or 4 years old had higher contributions to employment creation in the slow growth category than those that were 1 or 2 years old.

c. Contributions to employment creation by firm age and region

There was little variation in employment creation by different firm age segments between 1996 and 2000 across regions. The only exception to the national pattern was British Columbia. In B.C., the 70,000 continuing firms created only 3,000 net jobs over this period so the contributions made by each age cohort were minimal.

d. Growth Matrices by firm age

Growth matrices were constructed, as in Phase I, to illustrate firm growth between 1996 and 2000 for different age cohorts. The two matrices in Figure 3 show the movement between firm-size categories for hyper and strong growth firms that were '1 or 2 years old' and '13 or older' in 1996. Down the left column of each matrix are the firm-size categories in 1996 and across the top, their size in 2000. The shaded diagonal indicates the percent of firms that were in the same firm-size category in both years, while those above the diagonal are those that increased at least one firm-size category. By definition none of these firms could decrease in size because they had employment growth of at least 50 percent over these 4 years.

The matrix for young hyper and strong growth firms shows that more than one-third of these firms grew at least one firm-size category. Hyper and strong growth firms with between 20 and 299 employees in 1996 had very strong growth — more than half of the firms increased at least one firm-size category. Furthermore, in firms with 100-299 employees in 1996, more than 20 percent grew to have more than 500 employees by 2000.

The well-established hyper and strong growth firms in 1996 had growth patterns similar to the youngest firms. Roughly one-third of micro-firms moved up at least one firm-size category and there are many strong growth firms that had 20 to 299 employees in 1996. More than half of the well-established firms with between 20 and 99 employees in 1996 had grown by at least one size category.

2. Start-ups

Methodology

In this project, start-ups were defined as firms in their first full year of operation. For example, the cohort of 1985 start-ups is defined as firms that operated in 1985 and 1984, but not in 1983. This requirement is imposed to ensure that the base year from which growth is measured reflects a full year of operation. The requirement of data for two previous years limits the first year of available data to 1985.

Two approaches were used for the start-up tabulations. First, two cohorts of start-ups were compared over similar segments of the business cycle to see if the growth pattern is stable. The 1985 and 1993 cohorts were selected because both periods are at the beginning of upswings in the business cycle. These two cohorts were tracked over a 5-year period and firms that operated over the full 5-year period were labelled according to their job creation performance as either high growth (at least 50% growth over the 5 years) or low growth (less than 50% growth, including negative growth).

The second approach traced the 1985 cohort of start-ups over the full tracking period, 1985 to 2000. The method of triaging firms over the first 4 years of this period, 1985–1989, was the same as in Phase I. Firms were labelled as hyper growth, strong growth, slow/no growth or declining firms, and the performance of each group was compared over the full period, 1985–2000.

Both approaches were examined by firm-size with the standard size categories used by SEPH. Tabulations comparing 1985 and 1993 start-ups were obtained at the national level by 2-digit SIC industry and by region by 1-digit SIC industry. Tabulations covering 1985 start-ups up to 2000 were obtained nationally, by 2-digit SIC industry, and by region by 1-digit SIC industry.

Results

a. 1985 cohort vs. 1993 cohort

Comparing 1985 and 1993 start-ups reveals few differences between the two, suggesting that job creation by firm-size is stable over comparable business expansion periods. There were 93,281 start-ups in 1985, of which 40,398 survived to 1990. Of 89,123 start-ups in 1993, 34,449 survived to 1998. I.e., survival rates for the two five-year periods were 43 percent and 39 percent respectively. These rates are generally consistent with those calculated by Baldwin,[5] but are slightly higher because in our tabulations, start-ups must have operated for a full year to qualify. In other words, Baldwin's survival rates are for a firm at birth, while the rates in this work are survival rates given the firm has survived one year.

Figure 4a shows that the distribution of start-ups by firm-size of the two cohorts are nearly identical. Nearly 75 percent of continuing start-ups in both cohorts had fewer than 5 employees and just over 20 percent of start-ups had 5–19 employees. A very small percentage of start-ups had more than 20 employees. It may seem unlikely that a start-up would have such a large number of employees, but examples where this is possible include a foreign firm opening a new establishment in Canada or a large spin-off of an established firm.

Figure 4a also indicates whether the start-ups were high growth or low growth firms. Again, there is very little difference between the 1985 and 1993 cohorts in the relative number of low growth and high growth firms. High growth start-ups in both cohorts were concentrated in the smallest firms with approximately 80 percent having fewer than 5 employees and roughly 20 percent with 5-19 employees. About 70 percent of low growth firms in both cohorts were firms with fewer than 5 employees while just over 20 percent had 5–19 employees.

Overall, continuing 1985 start-ups created 68,000 net jobs over their first five years of operation but high growth firms in this cohort created over 120,000 jobs (Figure 4b). Continuing 1993 start-ups created 90,000

[5] John Baldwin, et al. (2000) "Failure Rates for New Canadian Firms: New Perspectives on Entry and Exit" Statistics Canada 61-526-XIE.

net jobs over the following five years and high growth start-ups created over 126,000 jobs over this period. The distribution of net jobs created across firm sizes differed between the two cohorts. Job creation in high growth firms of the 1985 cohort was concentrated in firms with fewer than 20 employees while job creation in high growth firms in 1993 start-ups had a high concentration in firms with 100–299 employees. Overall net job gains were higher in the 1993 cohort due to the noted job creation in the 100–299 size class. The 1993 cohort shed more jobs in the low growth firms than did the 1985 cohort, and these job losses were concentrated in the smaller size classes.

b. 1985 cohort traced over full period

As seen in Figure 5, 93,281 firms operating in 1985 were start-ups and only 16,022 or 17 percent survived to 2000. Of the surviving firms, 18 percent were hyper growth firms, 23 percent were strong growth firms, 31 percent were slow growth firms and 28 percent were declining firms. This high concentration of hyper growth firms is consistent with the firm age results where young firms were found to be responsible for a large share of job creation.

Over these 15 years, continuing start-ups created nearly 87,000 jobs but those that exited took over 236,000 jobs with them. Net job creation was concentrated in hyper growth firms, accounting for 62 percent of net job creation by continuing start-ups.

c. Start-ups by Region (1985 Cohort)

The two panels of Figure 6 show the distribution of start-ups across growth groups and their contribution to employment creation. Each panel presents data by region for 1985-2000. While the share of hyper growth firms was, on average, 18 percent for Canada, it was 21 percent in both BC and Ontario. The Prairies had the lowest share at 14 percent. Strong growth start-ups accounted for approximately the same proportion of start-ups within each region, ranging from 21 percent in the Prairies to 24 percent in Ontario. Similarly, slow growth and declining start-ups accounted for similar shares in each region, with approximately 4 percentage points separating the lowest share and highest share in each of these categories.

However, the contribution to employment creation by hyper and strong growth firms varied somewhat by region. Hyper and strong growth firms in the Prairie Provinces did not contribute very much to the job creation, but high growth firms made significant contributions to job creation elsewhere, particularly in BC and Quebec. Slow growth firms in Atlantic Canada contributed more jobs than did strong growth firms.

Survival rates of the 1985 start-ups up to 2000 varied little by region. With an average survival rate for 1985 start-ups in Canada of 17 percent, Quebec was the highest at 18 percent and the Atlantic Provinces the lowest at 16 percent. Ontario start-ups and those in the Prairie Provinces and BC had a survival rate of 17 percent.

d. Start-ups by Industry (1985 Cohort)

Contributions in each industry to employment creation by 1985 start-ups generally reaffirm the results obtained in Phase I which found that, no single industry was disproportionately responsible for job creation. An exception among start-ups was Business Services, which accounted for 10.3 percent of the continuing start-ups but 17.6 percent of net jobs created by start-ups. Hyper growth start-ups were responsible for this disproportionate growth as 338 hyper growth start-ups in Business Services created over 9,000 jobs.
Trade Contracting ranked second to Business Services in the number of jobs created by the 1985 start-ups over this period. Start-ups in this industry created 7.6 percent of all jobs created by this cohort of start-ups, but they accounted for 9.7 percent of all continuing firms, more than their share of employment creation.

3. Firm Exits

Methodology

Firm exits were examined to improve our understanding of where and when firms exit. The entire period from 1983 to 2000 was used to track exits, but the tabulations only cover 1983 to 1999 because observing a firm exit requires looking forward one year. For example, a 1999 exit is identified if the firm did not operate in 2000.

Two types of tabulations of firm exits were obtained. First, exits were tabulated between 1983 and 1999 by firm size in each year and by region.[6] Secondly, firm exits were tabulated for the cohort that exited in 1999 by firm size in 1999, firm age, region and industry. Thus, in effect, survival rates were also obtained.[7]

Results

a. Exits by Firm Size

Most exits were concentrated in very small firms; firms with fewer than 5 employees accounted for over 80% of exits over these 17 years. These very small firms increased their share of exits over these years by roughly 5 percent, accounting for roughly 83 percent in the early 1980s and approximately 88 percent in 1999. Firms with between 5 and 19 employees accounted for just over 10 percent of firm exits. The share of exits in these firms steadily declined slightly over the period from nearly 15 percent in 1983 to 10 percent in 1999. The share of exits in firms with 20–49 employees, 50–99 employees and more than 100 employees did not change over the period, accounting for just under 2 percent, 0.5 percent and 0.3 percent, respectively.

b. Exits by Region

The location of exits was also examined over the full period, 1983-1999. Figure 7 shows a portrait of successive years of exits by region in terms of the distribution across regions. Exits in Ontario closely traced the national pattern, while exits in Quebec had the same peaks and troughs as the national aggregate but had a downward trend over this period. Exits in the other three regions, Atlantic Canada, the Prairies and BC increased subtly over this period.

c. Exits by Age

When examining 1999 exits by firm age, a very strong pattern emerges (Figure 8). Approximately one-third of exits are firms that are in their first year of operation and as firm age increases, the share of exits decreases. Figure 8 also displays ILUs lost, showing that nearly one-third are lost in firms that are in the oldest age group (16 years or older). The firms in the first year of operation also account for a significant percent of job losses; that falls with age until the oldest age group.

Some differences emerge when looking at this cohort of exits by region and firm size (Figure 9). In Atlantic Canada, more than 40 percent of firms exit in their first year of operation, leaving the entire distribution of exits very skewed. Fewer than 25 percent of firms exit in their first year in Quebec and more than 10 percent were 16 or older, yielding a relatively flat distribution of exits by age. These patterns are also reflected in the patterns of ILUs lost by exits.

Similarly, exits by industry at the 1-digit SIC level and age reveal a very similar pattern in the distribution of exits and ILUs lost by age (Figure 10). The only industries that stand out from the aggregate are Services and Construction. In Services, exits were more skewed towards the oldest firms with fewer than 15 percent of exits

6 Industrial classification of firms improved over the period examined, resulting in fewer firms classified to Unclassified Industries. This directly impacts the tabulations of firm exits by industry over time because there were nearly 20,000 exits attributed to unclassified industries in 1983 and this number had fallen to just over 4,000 by 1999. As a result, time series firm exit tabulations by industry are not indicative of true trends.

7 Graduation rates over the period 1983–1999, defined as the percentage of firms that survive from one year to the next, were also calculated by firm size, by region and by 2-digit SIC industry. These tables are available on request.

operating in their first year while nearly 20 percent were 16 or older. This is the opposite of construction where more than 50 percent of exits were in the first year of operation and virtually no exits were 16 or older.

d. Survival Rates

Firm survival rates[8] were tabulated by counting the number of firms that entered or started up in each year and tracking how long each firm operated. Figure 11 provides the survival rates for the 1984 entrants, by firm size. As expected, micro firms had the lowest survival rates and the largest firms had the highest survival rates.

Figure 12 provides survival rates for 1984 entrants by region. There are substantial regional variations in survival rates as the Atlantic Provinces and Quebec have lower survival rates than the other regions. This pattern holds over all lengths of survival, but the differences between regions diminished as the length of survival increased.

Survival rates of 1984 entrants were also examined by industry (Figure 13). Survival rates varied greatly across industries, ranging from 33 percent in Other Service Industries to 100 percent in the Pipeline Transport Industry for 1-year survival to a range of 0 percent in the Pipeline Transport Industry to 42 percent in the Rubber Products Industry, after 17 years.

D. CONCLUSIONS AND NEXT STEPS

Phase II of the growth firms project added to the knowledge gained in Phase I of this project. Additional tabulations were completed to provide insight in the influence of firm age on growth, the job creation performance of start-ups and where and when exits occur.

Tabulations indicate that firms that are 1 or 2 years old and those that are 13 or older, had the most significant contributions to employment creation of continuing firms between 1985 and 2000. This result supports the Phase I finding that start-ups were significant contributors to job creation and furthermore, Phase II tabulations show that high growth is not limited to young firms. This is consistent with a hypothesises in the theoretical literature that it takes time to acquire intellectual capital and develop networks. This general finding holds in all regions, but there were some variations by industry.

The significance of young firms to employment creation was also evident in the examination of start-ups. Between 1985 and 2000, 16,000 start-ups survived and created 87,000 jobs; more than 60 percent of these jobs were created by hyper growth start-ups. Comparing two cohorts of start-ups entering the economy at comparable points in the business cycle, showed that they had very similar, hence predictable, survival rates and rates of employment creation.

As expected, firm exits between 1983 and 1999 were mostly small, young firms. The distribution of firm exits by region varied between 1983 and 1999. Exits in Ontario were the most volatile and although exits in Quebec followed a similar cyclical pattern, there was a slight decline in the trend over this period. Exits in the Prairies and BC increased slightly while exits in the Atlantic Provinces were fairly constant.

In fiscal year 2004/2005, Phase III of this Growth Firm Project will perform tabulations that will make use of the linkage of LEAP/SAF to T2 tax data, providing financial data for all incorporated firms in Canada to 2001. Furthermore, the new data will be on a NAICS basis rather than SIC. The earliest year this data base would cover is expected to be 1991. The focus of Phase III will be the relationship between growth in employment and growth in revenue. If resources allow, the relation between innovation and growth will also be examined, by linking the LEAP/SAF file to the innovations surveys of Manufacturing (1999) and Services (2003) industries.

[8] In measuring survival rates, the one year survival condition used in section 2 was not applied. All figures presented in this section cover the 1984 cohort; tables for the 1985-1999 cohorts are available on request.

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Tables and Figures

Figure 1: Type of Growth Firm and Employment Creation, Canada, 1996–2000

	Number of Firms	Net Jobs Created (Lost), 1996–2000	
All firms in 1996 in private sector	772,477		
All firms in 2000 in private sector	821,612		
Total Net Job Creation		**1,161,407**	
Firms not existing in 1996 but operating in 2000 (births)	355,335		1,970,011
Firms existing in 1996 but not operating in 2000 (deaths)	306,200		1,482,865
Churning — net effect of births and deaths		**487,146**	
Continuing Firms: those existing on 1996 and 2000	**466,277**	**674,261**	
Hyper growth firms	25,159		559,817
Strong growth firms	65,512		732,810
Slow growth firms	175,916		630,960
Declining growth firms	202,690		(1,249,326)

Figure 2a: Distribution of Firms and Net Jobs Created by Age and Growth Group, 1996-2000

Growth Group		Age							
		Total	1-2	3-4	5-6	7-8	9-10	11-12	13+
Total	**Firm Count**	466,277	78,503	55,606	47,949	39,687	35,439	33,106	175,987
	Distribution	*100%*	*17%*	*12%*	*10%*	*9%*	*8%*	*7%*	*38%*
	Net Jobs Created	674,261	176,278	93,460	64,994	64,744	60,104	53,155	161,530
	Distribution	*100%*	*26%*	*14%*	*10%*	*10%*	*9%*	*8%*	*24%*
Hyper	**Firm Count**	25,159	8,525	4,158	2,936	2,069	1,627	1,363	4,481
	Distribution	*100%*	*34%*	*17%*	*12%*	*8%*	*6%*	*5%*	*18%*
	Net Jobs Created	559,817	144,312	74,890	59,156	48,980	34,091	37,352	161,036
	Distribution	*100%*	*26%*	*13%*	*11%*	*9%*	*6%*	*7%*	*29%*
Strong	**Firm Count**	62,512	13,450	8,893	7,131	5,752	4,909	4,296	18,081
	Distribution	*100%*	*22%*	*14%*	*11%*	*9%*	*8%*	*7%*	*29%*
	Net Jobs Created	732,810	101,610	67,899	50,468	53,721	56,442	45,581	357,090
	Distribution	*100%*	*14%*	*9%*	*7%*	*7%*	*8%*	*6%*	*49%*
Slow	**Firm Count**	175,916	26,763	20,072	17,852	15,047	13,513	12,774	69,895
	Distribution	*100%*	*15%*	*11%*	*10%*	*9%*	*8%*	*7%*	*40%*
	Net Jobs Created	630,960	29,741	30,101	26,353	27,842	32,139	27,620	457,164
	Distribution	*100%*	*5%*	*5%*	*4%*	*4%*	*5%*	*4%*	*72%*
Declining	**Firm Count**	202,690	29,765	22,483	20,030	16,819	15,390	14,673	83,530
	Distribution	*100%*	*15%*	*11%*	*10%*	*8%*	*8%*	*7%*	*41%*
	Net Jobs Created	-1,249,326	-99,385	-79,430	-70,983	-65,799	-62,568	-57,398	-813,760
	Distribution	*100%*	*5%*	*5%*	*5%*	*4%*	*4%*	*4%*	*73%*

Figure 2b: Percentage Contribution to Overall Change in ILUs in Continuing Firms by Growth Group and Age, 1996–2000

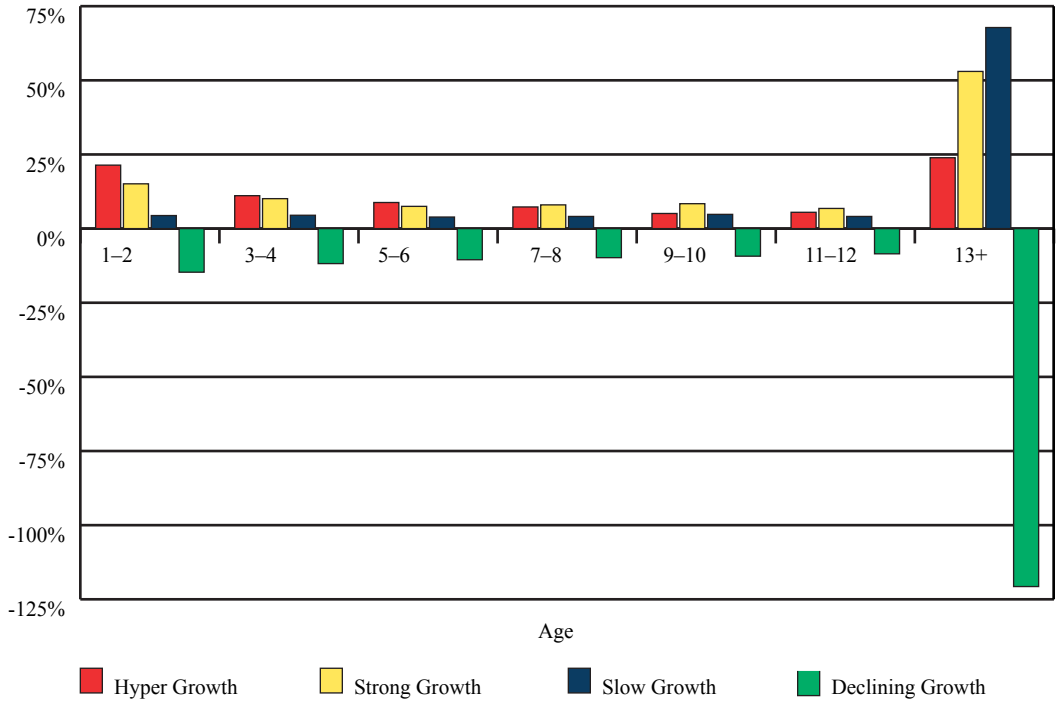


Figure 2c: Net ILUs Created per Firm by Age Cohort, 1996–2003

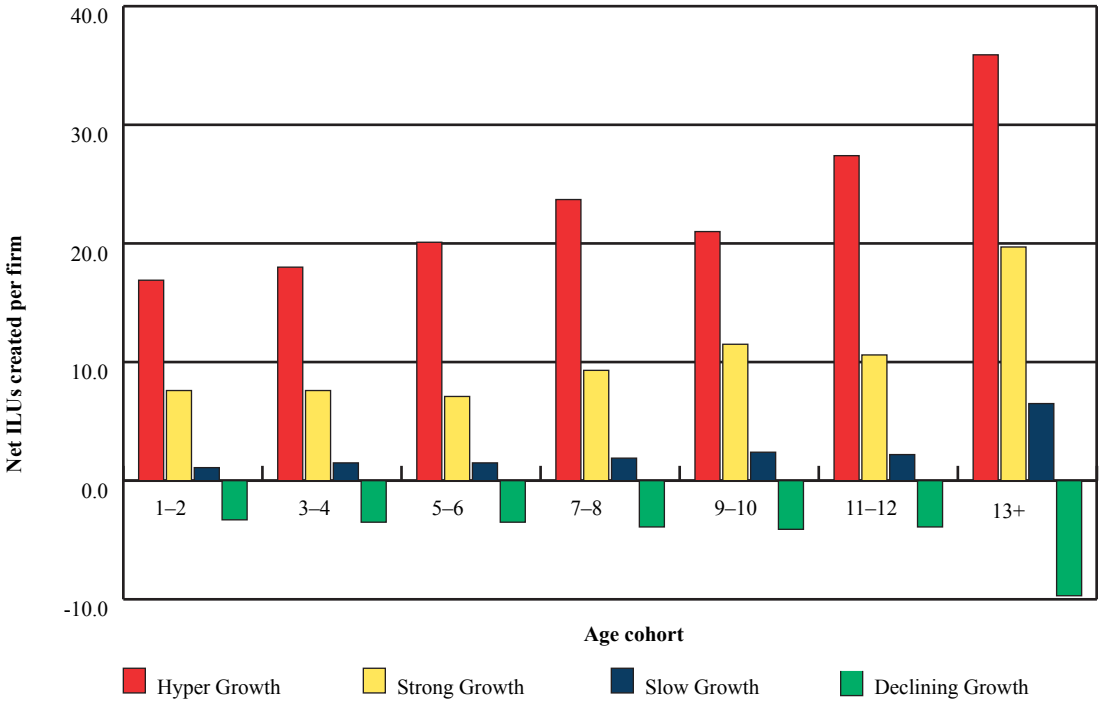


Figure 3: Growth Matrices for Hyper and Strong Growth Firms, in %, by firm age, Continuing Firms, 1996–2000

Firms Aged 1 or 2										
		Firm Size in 2000 (number of ILUs)								
		0–5	5–19	20–49	50–99	100–299	300–499	500+	Total	Number of Firms
Firm Size in 1996	0–5	**62.1%**	35.7%	1.8%	0.2%	0.1%	0.0%	0.0%	100.0%	16,792
	5–19	0.0%	**58.5%**	36.0%	4.2%	1.1%	0.0%	0.0%	100.0%	4,266
	20–49	0.0%	0.0%	**34.9%**	50.2%	13.1%	0.8%	0.9%	100.0%	641
	50–99	0.0%	0.0%	0.0%	**17.6%**	77.5%	3.8%	1.1%	100.0%	182
	100–299	0.0%	0.0%	0.0%	0.0%	**49.3%**	28.8%	21.9%	100.0%	73
	300–499	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	7
	500+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**100.0%**	100.0%	14
	Total	47.5%	38.7%	9.4%	2.6%	1.5%	0.2%	0.2%	100.0%	21,975

Firms Aged 13 or older										
		Firm size in 2000 (number of ILUs)								
		0–5	5–19	20–49	50–99	100–299	300–499	500+	Total	Number of Firms
Firm Size in 1996	**0–5**	**64.2%**	35.1%	0.6%	0.1%	0.0%	0.0%	0.0%	100.0%	12,542
	5–19	0.0%	**60.9%**	36.7%	1.9%	0.4%	0.0%	0.0%	100.0%	6,348
	20–49	0.0%	0.0%	**39.6%**	54.1%	6.1%	0.1%	0.1%	100.0%	2,073
	50–99	0.0%	0.0%	0.0%	**20.2%**	76.8%	2.6%	0.4%	100.0%	811
	100–299	0.0%	0.0%	0.0%	0.0%	**55.3%**	35.7%	9.0%	100.0%	557
	300–499	0.0%	0.0%	0.0%	0.0%	0.0%	**5.1%**	94.9%	100.0%	99
	500+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**100.0%**	100.0%	132
	Total	35.7%	36.7%	14.3%	6.3%	4.8%	1.0%	1.3%	100.0%	22,562

Figure 4a: Percentage Distribution of Start-ups, by firm size in first full year of operation and by growth over their first five years

Number of Firms and Percent Distribution by Size of Firm, Canada, 1985–1990, Start-ups Only						
	50% or more growth		Less than 50% Growth		Deaths	
Size of Firm	# of Firms	%	# of Firms	%	# of Firms	%
< 5	10,900	79.2%	18,323	68.8%	43,926	83.1%
5–19	2,460	17.9%	6,645	24.9%	7,642	14.5%
20–49	316	2.3%	1,213	4.6%	1,037	2.0%
50–99	60	0.4%	310	1.2%	202	0.4%
100–299	22	0.2%	114	0.4%	60	0.1%
300–499	1	0.0%	15	0.1%	13	0.0%
500 +	1	0.0%	18	0.1%	3	0.0%
All firms	13,760	100.0%	26,638	100.0%	52,883	100.0%

Number of Firms and Percentage Distribution by Size of Firm, Canada, 1993–1998, Start-ups Only						
	50% or more growth		Less than 50% Growth		Deaths	
Size of Firm	# of Firms	%	# of Firms	%	# of Firms	%
< 5	8,187	78.9%	16,778	69.7%	45,387	83.0%
5–19	1,799	17.3%	5,795	24.1%	7,922	14.5%
20–49	276	2.7%	1,106	4.6%	1,056	1.9%
50–99	83	0.8%	263	1.1%	222	0.4%
100–299	27	0.3%	109	0.5%	75	0.1%
300–499	1	0.0%	14	0.1%	6	0.0%
500 +	3	0.0%	8	0.0%	6	0.0%
All firms	10,376	100.0%	24,073	100.0%	54,674	100.0%

Figure 4b: Net Job Creation by Start-ups, by firm size in first full year of operation and by growth over their first five years

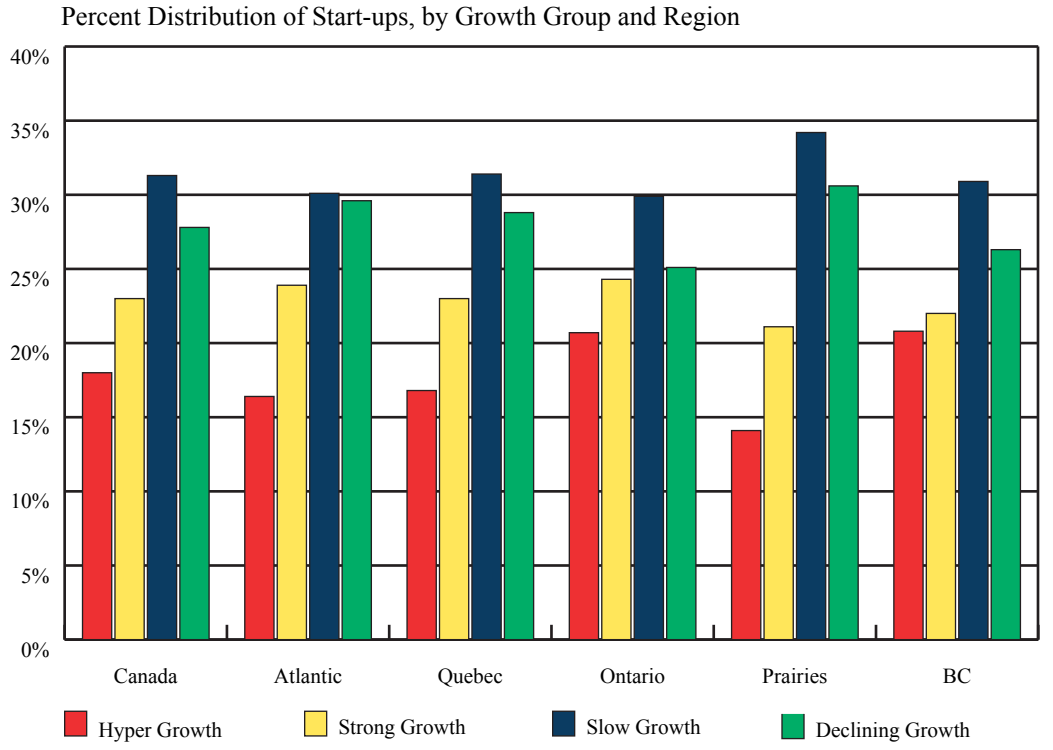
Number of Net Jobs Created and Percent Distribution by Size of Firm, Canada, 1985–1990, Start-ups Only						
	50% or more growth		Less than 50% Growth		Deaths	
Size of Firm	Net Jobs Created	%	Net Jobs Created	%	Net Jobs Created	%
< 5	55,375	45.9%	-7,272	13.8%	-8,834	-15.4%
5–19	38,865	32.2%	-13,260	25.2%	-24,033	41.9%
20–49	14,960	12.4%	-7,650	14.6%	-11,830	20.6%
50–99	5,610	4.6%	-4,712	9.0%	-6,417	11.2%
100–299	5,033	4.2%	-4,453	8.5%	-4,078	7.1%
300–499	416	0.3%	-528	1.0%	-600	1.0%
500 +	480	0.4%	-14,663	27.9%	-1,605	2.8%
All firms	120,739	100.0%	-52,538	100.0%	-57,397	100.0%

Number of Jobs Created and Percentage Distribution by Size of Firm, Canada, 1993–1998, Start-ups Only						
	50% or more growth		Less than 50% Growth		Deaths	
Size of Firm	Net Jobs Created	%	Net Jobs Created	%	Net Jobs Created	%
< 5	36,416	28.7%	-7,141	19.9%	-8,834	15.4%
5–19	31,101	24.5%	-12,675	35.2%	-24,033	41.9%
20–49	16,142	12.7%	-7,146	19.9%	-11,830	20.6%
50–99	8,328	6.6%	-4,049	11.3%	-6,417	11.2%
100–299	32,297	25.4%	-2,841	7.9%	-4,078	7.1%
300–499	360	0.3%	-1,475	4.1%	-804	1.4%
500 +	2,292	1.8%	-643	1.8%	-1,401	2.4%
All firms	126,936	100.0%	-35,970	100.0%	-57,397	100.0%

Figure 5: Number of Start-ups and net jobs created and lost, by type of growth firm, 1985–2000

1985 Private Sector Start-ups, 1985-2000	Number of Firms	Net Jobs Created (Lost), 1985 - 2000
All 1985 Start-ups	93,281	
Start-ups no longer operating in 2000	77,259	(236,106)
Continuing Start-ups	16,022	86,985
Net Jobs Created by 1985 Start-ups		(149,121)
Overall Change, Continuing Start-ups		
1985 ILUs		142,639
2000 ILUs		229,624
Net Change		86,985
Change by type of growth firm, Continuing Start-ups	**16,022**	**86,985**
Hyper Growth Firms	2,869	54,285
Strong Growth Firms	3,702	30,081
Slow Growth Firms	5,001	11,778
Declining Firms	4,450	(9,159)

Figure 6: Distribution of Start-ups and Contribution to Job Creation, by Growth Groups and Region, 1985–2000



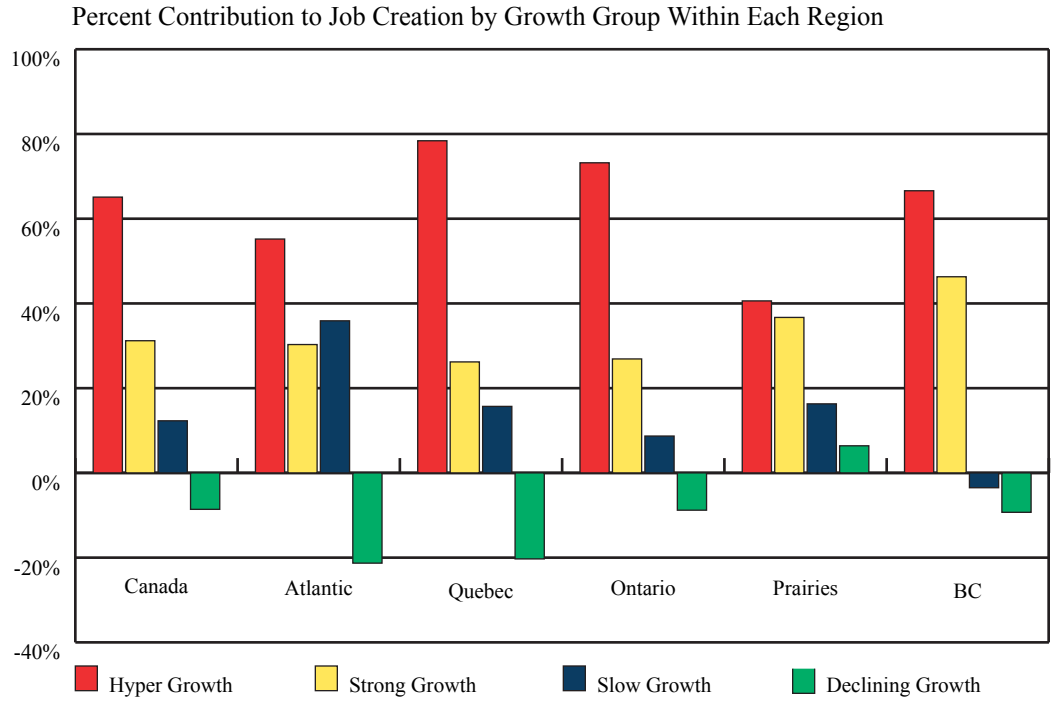


Figure 7: Number of Firm Exits, by Region, 1983–1999

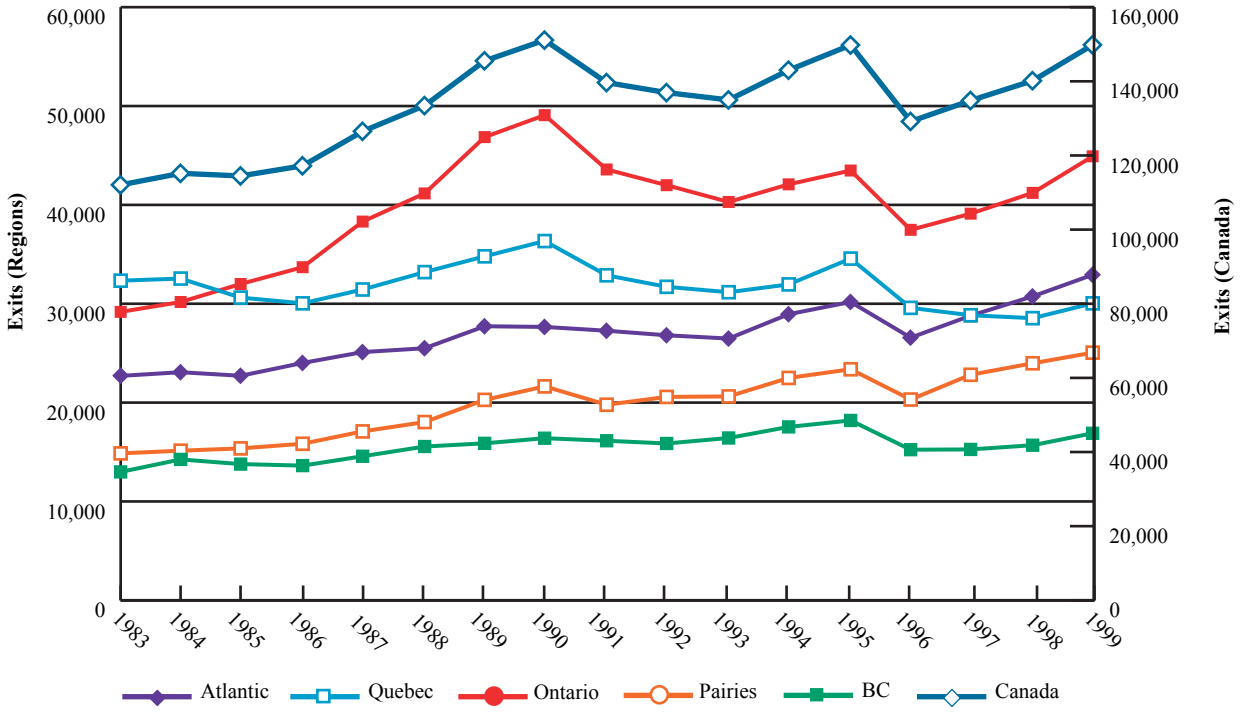


Figure 8 : Distribution of Firm Exits and ILUs Lost, by Firm Age, 1999 Cohort of Exits

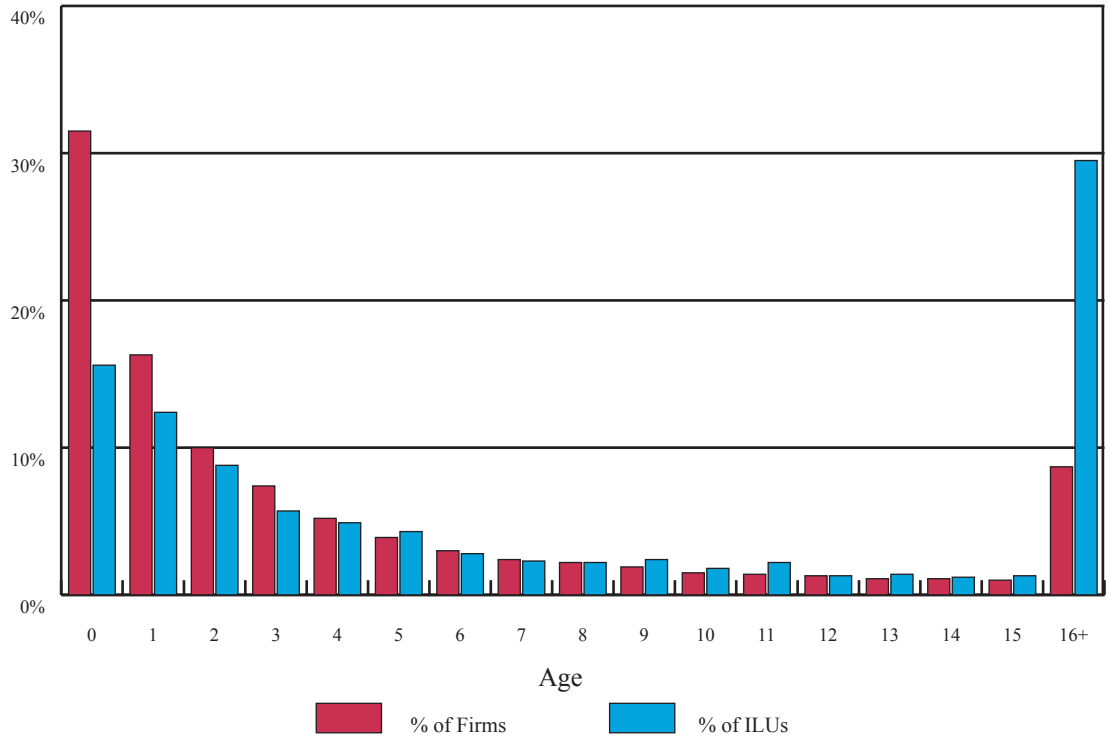
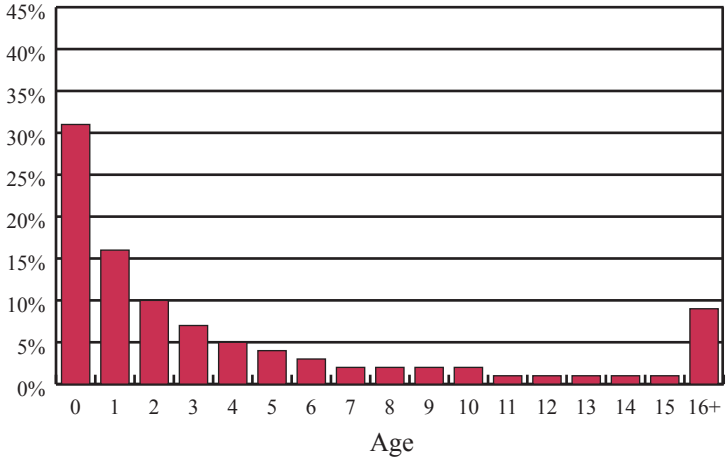
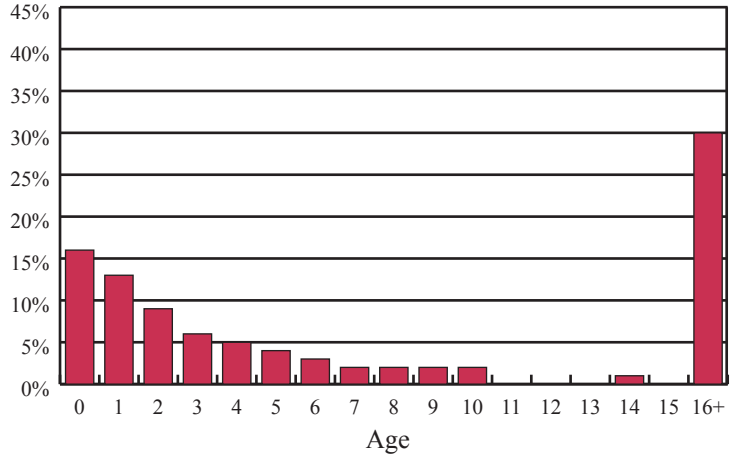


Figure 9: Distribution of Firm Exits and ILUs Lost, by Firm Age and Region, 1999 Cohort of Exits

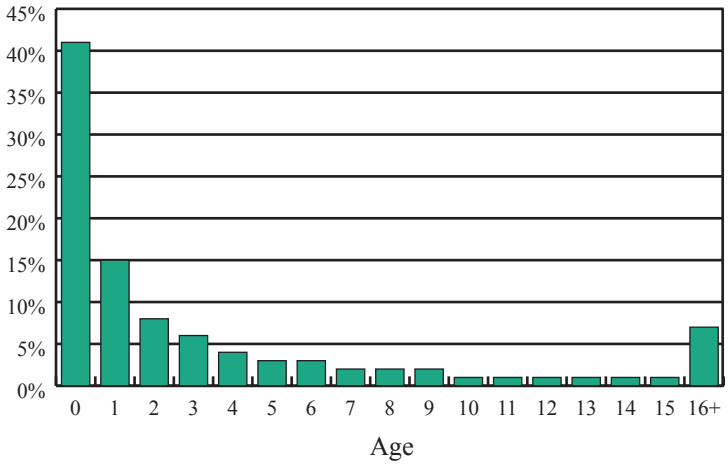
Distribution of Exits, Canada, by Age, 1999



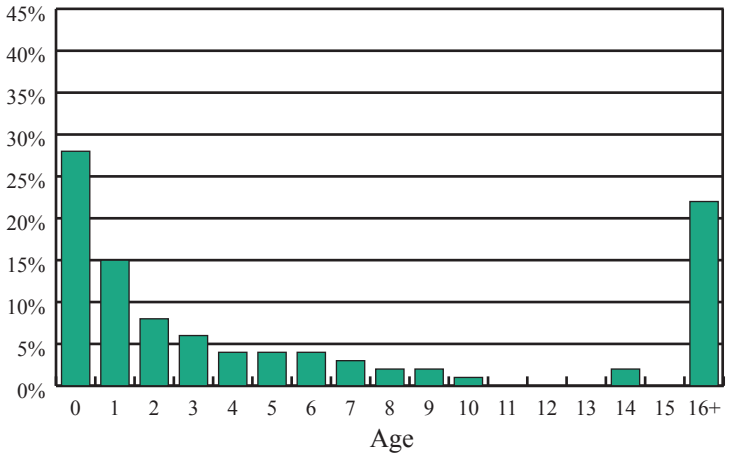
Jobs Shed by Exits, Canada, by Age, 1999



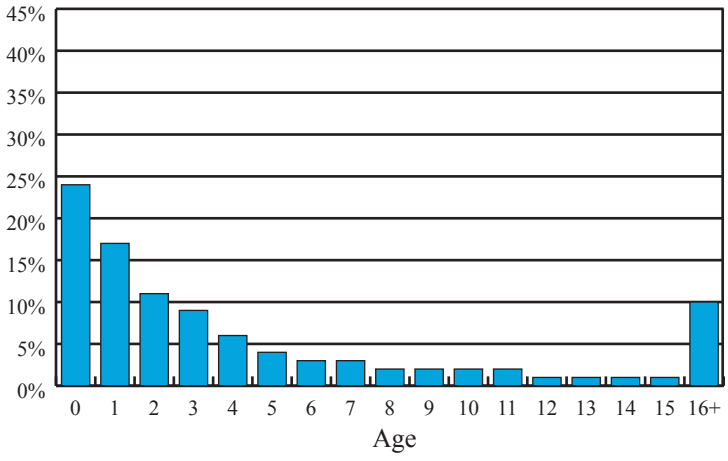
Distribution of Exits, Atlantic Provinces, by Age, 1999



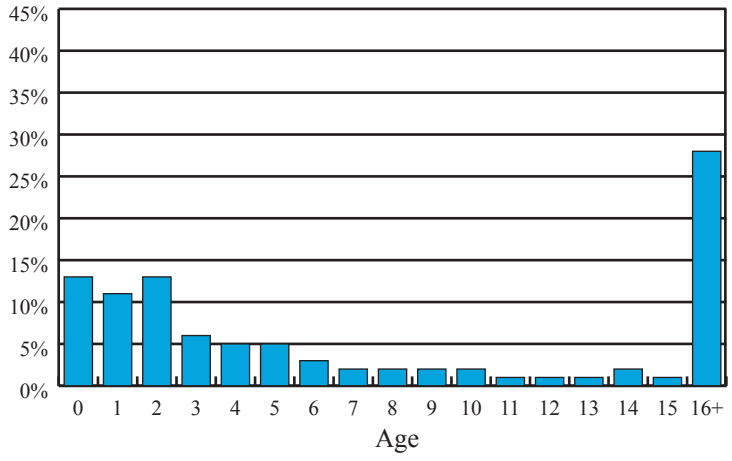
Jobs Shed by Exits, Atlantic Provinces, by Age, 1999



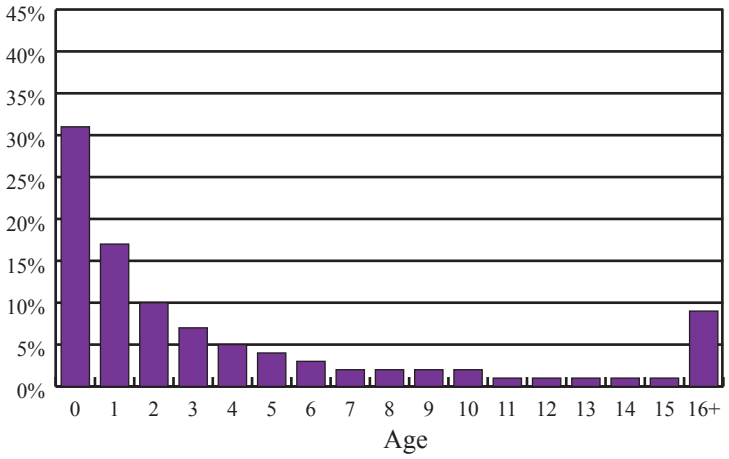
Distribution of Exits, Quebec, by Age, 1999



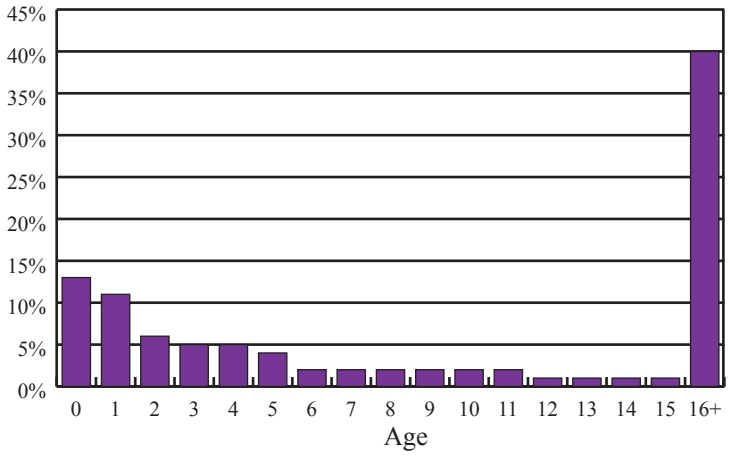
Jobs Shed by Exits, Quebec, by Age, 1999



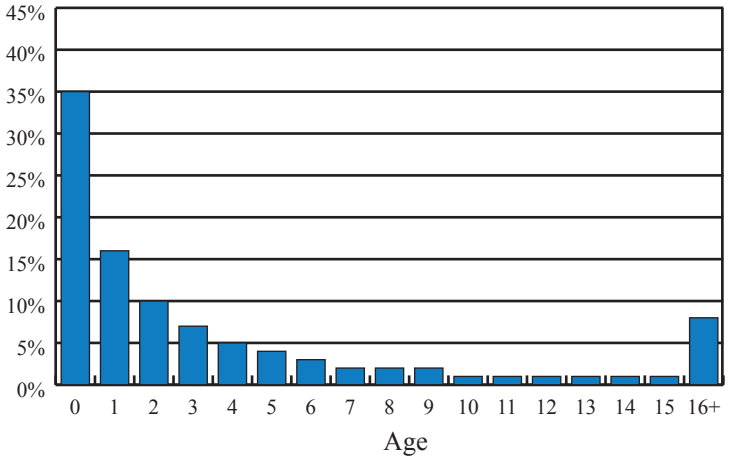
Distribution of Exits, Ontario, by Age, 1999



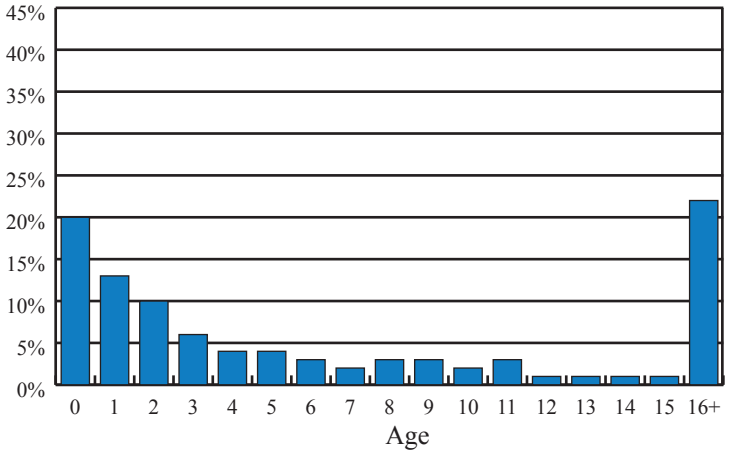
Jobs Shed by Exits, Ontario, by Age, 1999



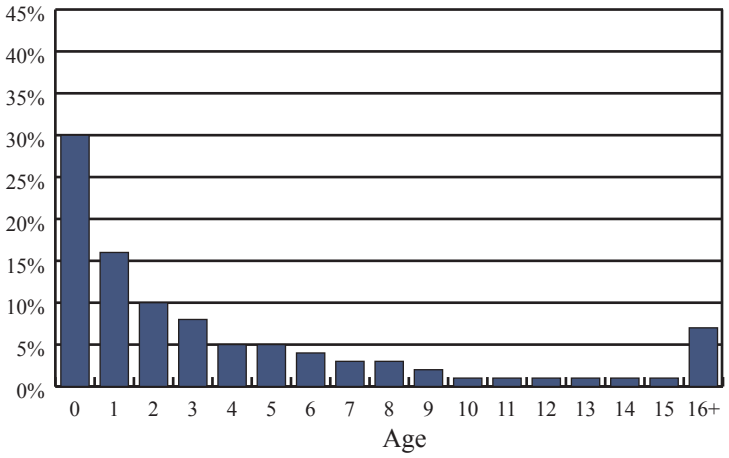
Distribution of Exits, Prairie Provinces, by Age, 1999



Jobs Shed by Exits, Prairie Provinces, by Age, 1999



Distribution of Exits, BC, by Age, 1999



Jobs Shed by Exits, BC, by Age, 1999

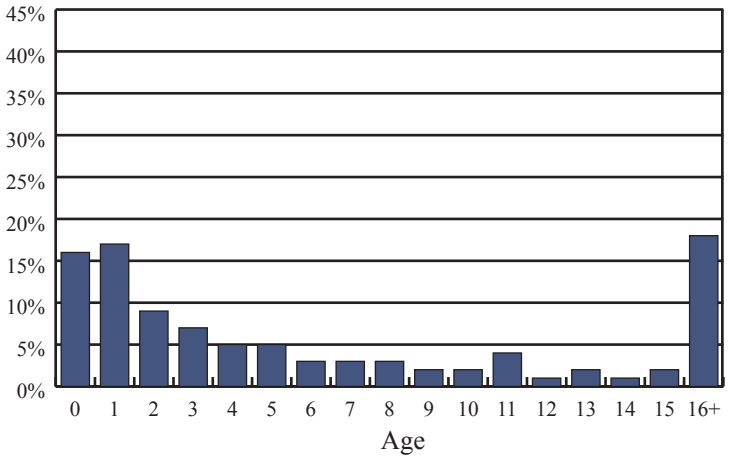
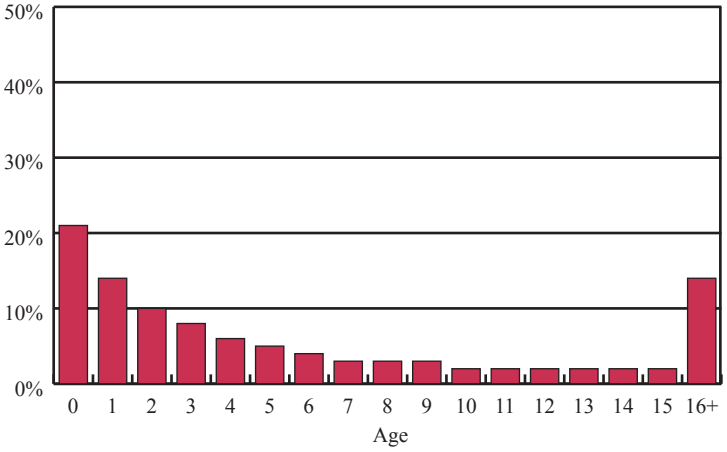
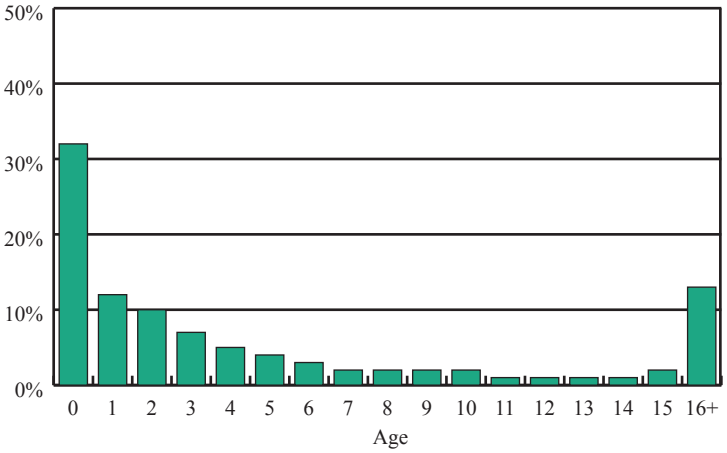


Figure 10: Distribution of Firm Exits, by Firm Age and Industry, 1999 Cohort of Exits

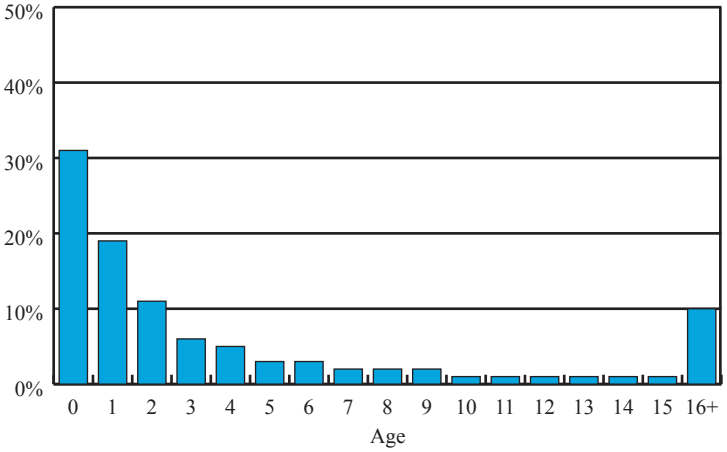
Distribution of Exits, Industry Aggregate, Canada, by Age, 1999



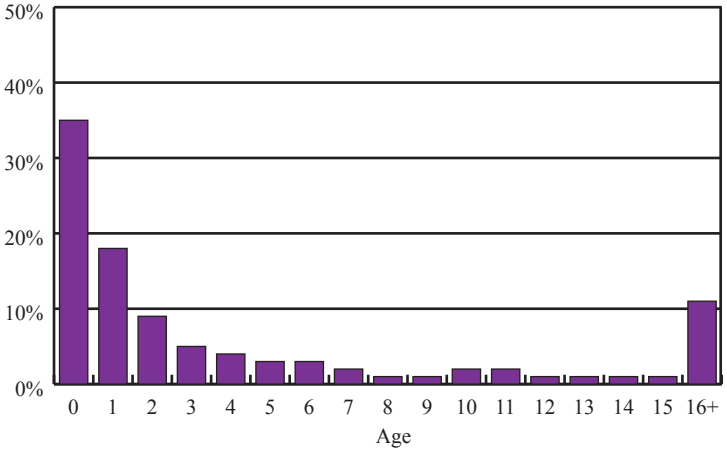
Distribution of Exits, Primary Industries, Canada, by Age, 1999



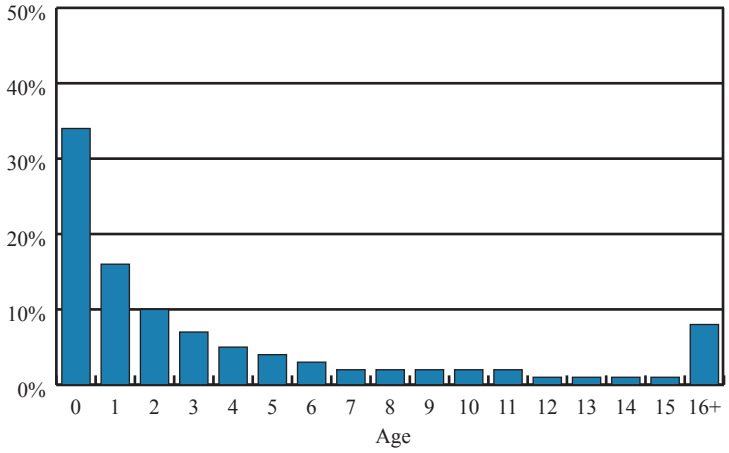
Distribution of Exits, Base Manufacturing, Canada, by Age, 1999



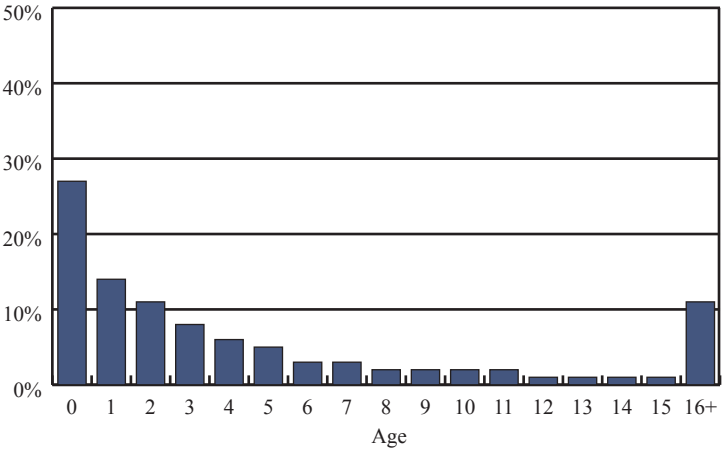
Distribution of Exits, Secondary Manufacturing, Canada, by Age, 1999



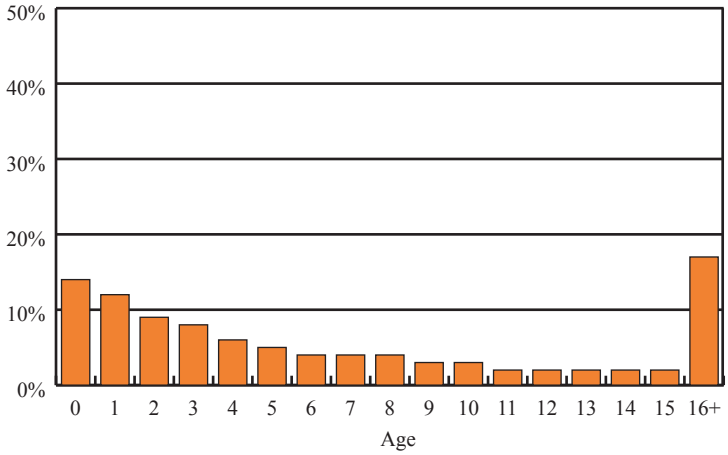
Distribution of Exits, Construction, Canada, by Age, 1999



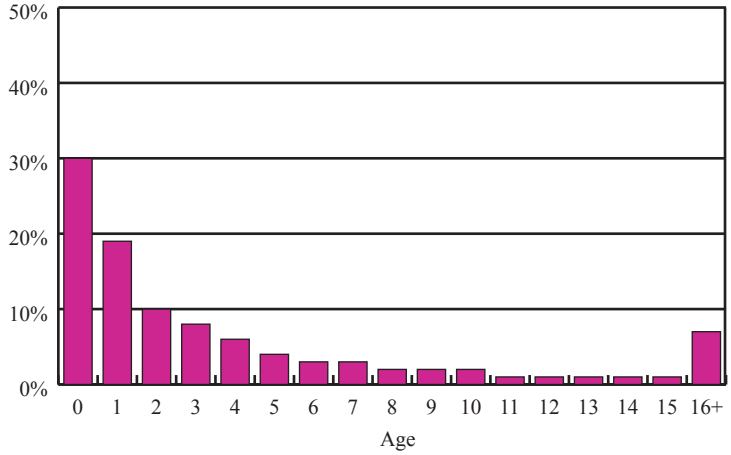
Distribution of Exits, Wholesale and Retail, Canada, by Age, 1999



Distribution of Exits, Services, Canada, by Age, 1999



Distribution of Exits, Accomodation, Food, and Beverages, Canada, by Age, 1999



Distribution of Exits, Unclassified Industries, Canada, by Age, 1999

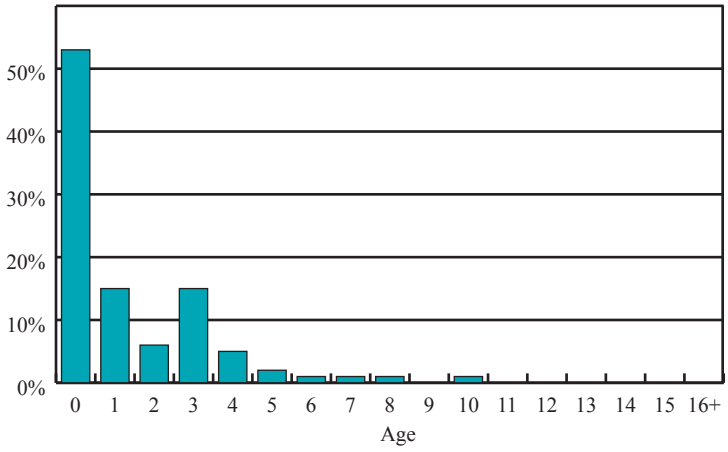


Figure 11: Survival Rates for 1984 Entrants, by firm size

Firm Size	All Sizes	<5	5–99	100+
N	148,460	130,021	18,255	184
1	71%	71%	74%	81%
2	58%	57%	61%	68%
3	49%	49%	53%	63%
4	42%	42%	47%	58%
5	37%	36%	42%	54%
6	32%	31%	38%	52%
7	28%	27%	34%	50%
8	25%	24%	31%	49%
9	23%	22%	29%	45%
10	21%	20%	27%	42%
11	19%	18%	25%	41%
12	18%	17%	23%	40%
13	16%	15%	22%	37%
14	15%	14%	21%	36%
15	14%	14%	20%	35%
16	13%	13%	19%	34%

Figure 12: Survival Rates for 1984 Entrants, by Region

Firm Size	Canada	Atlantic	Quebec	Ontario	Prairies	BC
N	162,012	20,063	43,004	44,737	32,835	21,373
1	68%	57%	63%	75%	70%	72%
2	55%	45%	51%	62%	57%	58%
3	47%	39%	43%	53%	49%	49%
4	41%	33%	37%	46%	42%	42%
5	36%	29%	32%	40%	37%	37%
6	31%	25%	28%	35%	32%	32%
7	27%	22%	25%	31%	28%	28%
8	24%	20%	22%	28%	26%	26%
9	22%	18%	20%	25%	23%	23%
10	20%	17%	18%	23%	21%	21%
11	19%	15%	17%	21%	20%	19%
12	17%	14%	15%	19%	18%	18%
13	16%	13%	14%	18%	16%	17%
14	15%	12%	14%	17%	15%	16%
15	14%	11%	13%	16%	14%	15%
16	13%	10%	12%	15%	13%	13%

Figure 13: Survival Rates for 1984 entrants, by Industry

Industry	#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Industry Aggregate	148,460	71%	58%	49%	42%	37%	32%	28%	25%	23%	21%	19%	18%	16%	15%	14%	13%	13%
01_Agriculture	10,119	77%	67%	58%	51%	44%	36%	31%	27%	25%	22%	20%	18%	16%	15%	14%	12%	12%
02_Agriculture Services	499	85%	75%	65%	58%	52%	45%	39%	37%	34%	32%	30%	28%	26%	24%	23%	22%	22%
03_Fishing Trapping Industry	841	82%	73%	66%	61%	55%	48%	44%	40%	38%	35%	32%	27%	25%	24%	23%	20%	20%
04_Logging Industry	1,866	74%	60%	49%	41%	34%	28%	24%	22%	20%	18%	16%	15%	14%	13%	12%	11%	11%
05_Forestry Services Industry	112	76%	64%	53%	50%	41%	35%	30%	29%	29%	28%	28%	25%	25%	22%	21%	21%	21%
06_Mines	73	77%	58%	52%	40%	34%	32%	26%	21%	16%	15%	14%	14%	12%	12%	12%	12%	12%
07_Oil Gas Industry	149	91%	80%	68%	61%	54%	48%	44%	40%	38%	34%	30%	27%	24%	23%	20%	19%	19%
08_Quarries Sand Pits	68	87%	75%	65%	56%	54%	50%	44%	38%	37%	34%	32%	29%	28%	26%	26%	26%	26%
09_Mineral Extraction Services	506	83%	70%	58%	50%	43%	37%	31%	27%	24%	23%	21%	20%	19%	17%	16%	14%	14%
10_Food Industries	340	85%	72%	66%	61%	57%	53%	48%	45%	43%	40%	38%	35%	32%	31%	30%	29%	29%
11_Beverage Products Industry	18	94%	78%	67%	56%	56%	44%	39%	39%	33%	33%	33%	22%	22%	22%	22%	17%	17%
12_Tobacco Industry	0																	
15_Rubber Products Industries	26	77%	69%	62%	62%	58%	58%	58%	50%	42%	42%	42%	42%	42%	42%	42%	42%	42%
16_Plastic Products Industry	179	88%	77%	69%	66%	60%	55%	50%	45%	42%	40%	36%	34%	34%	32%	31%	28%	28%
17_Leather and Allied Products Inds.	57	70%	60%	40%	30%	26%	16%	12%	12%	11%	11%	9%	9%	9%	9%	9%	5%	5%
18_Primary Textile Industry	19	84%	74%	74%	68%	63%	63%	47%	47%	42%	42%	42%	32%	32%	32%	32%	32%	32%
19_Textile Products Industries	140	94%	81%	67%	59%	54%	49%	43%	40%	36%	32%	30%	27%	26%	26%	24%	23%	23%
24_Clothing Industry	539	85%	72%	60%	51%	44%	38%	32%	27%	24%	22%	20%	18%	16%	16%	14%	13%	13%
25_Wood Industries	683	82%	71%	63%	55%	47%	41%	37%	34%	31%	29%	27%	25%	24%	23%	21%	19%	19%
26_Furniture Fixture Industries	456	79%	66%	56%	47%	41%	36%	31%	27%	23%	22%	20%	19%	18%	18%	17%	17%	17%
27_Paper Allied Products Industries	51	84%	71%	65%	61%	61%	55%	51%	51%	47%	47%	43%	43%	43%	43%	41%	37%	37%
28_Publishing and Printing Industries	981	84%	71%	61%	53%	46%	41%	37%	34%	31%	28%	26%	24%	23%	22%	21%	20%	20%
29_Primary Metal Industries	40	80%	73%	68%	63%	58%	55%	53%	48%	45%	43%	43%	43%	43%	40%	38%	38%	38%
30_Fabricated Metal Products	736	88%	79%	72%	65%	60%	55%	50%	47%	44%	42%	40%	38%	36%	35%	35%	34%	34%
31_Machinery Industry	302	89%	83%	74%	66%	60%	54%	48%	43%	42%	40%	37%	37%	36%	35%	34%	33%	33%
32_Transportation Equipment Industries	230	83%	70%	62%	55%	49%	41%	35%	32%	28%	27%	25%	23%	20%	20%	20%	19%	19%
33_Electrical Electronic Products	252	89%	75%	65%	55%	50%	43%	38%	37%	34%	32%	29%	28%	28%	27%	27%	26%	26%
35_Non-metallic Mineral Products	189	88%	77%	66%	59%	52%	48%	42%	37%	33%	31%	29%	27%	27%	26%	25%	24%	24%
36_Petroleum Coal Products	12	75%	67%	67%	50%	50%	42%	33%	33%	33%	33%	25%	17%	17%	17%	17%	17%	17%
37_Chemical Products Industries	134	86%	72%	62%	56%	53%	49%	43%	39%	36%	35%	34%	32%	31%	29%	28%	25%	25%
39_Other Manufactured Products Inds	601	83%	69%	61%	55%	48%	44%	39%	35%	33%	31%	29%	26%	24%	23%	22%	22%	22%
40_Building Developing General Contracting	5,115	77%	64%	55%	48%	42%	36%	31%	27%	24%	22%	19%	17%	16%	15%	13%	13%	13%
41_Industrial Heavy Construction Ind	492	81%	70%	62%	55%	51%	46%	42%	39%	36%	34%	30%	27%	26%	24%	22%	21%	21%
42_Trade Contracting	9,582	80%	69%	60%	53%	47%	41%	36%	32%	29%	27%	24%	22%	21%	20%	19%	18%	18%
44_Construction Services	592	84%	70%	61%	53%	45%	38%	33%	29%	27%	24%	21%	19%	18%	16%	15%	13%	13%
45_Transportation Industry	4,771	79%	65%	56%	48%	41%	35%	30%	27%	24%	23%	21%	19%	18%	17%	16%	14%	14%
46_Pipeline Transport Industry	2	100%	100%	100%	100%	100%	100%	50%	50%	50%	50%	50%	0%	0%	0%	0%	0%	0%
47_Storage Warehousing Inds	73	85%	75%	70%	59%	48%	44%	40%	36%	33%	32%	30%	29%	23%	23%	22%	21%	21%
48_Communication Industries	402	78%	65%	53%	46%	40%	32%	26%	23%	20%	19%	18%	16%	15%	13%	12%	12%	12%
49_Other Utility Industries	186	85%	72%	59%	51%	45%	38%	32%	28%	26%	24%	22%	21%	20%	19%	17%	16%	16%
50_Farm Products Wholesale	110	84%	77%	65%	55%	52%	45%	42%	41%	39%	35%	34%	30%	28%	28%	27%	27%	27%
51_Petroleum Products Wholesale	277	83%	71%	63%	56%	51%	45%	40%	38%	36%	33%	31%	30%	27%	25%	23%	21%	21%
52_Foods Beverages Drugs Tobacco Wholesale	650	88%	77%	68%	60%	52%	45%	41%	39%	36%	32%	30%	28%	26%	24%	23%	22%	22%

Industry	#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
53_Apparel Dry Goods Wholesale	340	88%	76%	67%	60%	53%	48%	43%	39%	32%	30%	28%	25%	24%	22%	21%	19%	19%
54_Household Goods Wholesale	238	89%	77%	66%	58%	50%	46%	39%	36%	32%	29%	26%	24%	22%	21%	20%	17%	17%
55_Motor Vehicles Parts Accessories Wholesale	381	88%	78%	67%	60%	54%	47%	43%	40%	38%	37%	36%	33%	31%	29%	28%	27%	27%
56_Metal Hardware Plumbing Heating Building Materials Wholesale	715	85%	78%	70%	63%	56%	53%	49%	45%	41%	38%	36%	35%	34%	33%	30%	28%	28%
57_Machinery Equip Supplies Wholesale	1,547	89%	79%	72%	65%	59%	54%	49%	45%	42%	38%	35%	33%	31%	30%	28%	26%	26%
59_Other Products Wholesale	1,271	84%	72%	63%	55%	49%	44%	38%	35%	30%	28%	27%	25%	24%	23%	21%	20%	20%
60_Grocery Stores Pharmacies Beer Alcohol Retail	5,250	79%	63%	52%	44%	37%	32%	28%	25%	22%	20%	18%	16%	15%	14%	12%	12%	12%
61_Shoe Fabric Yarn Stores	2,029	85%	69%	57%	47%	39%	33%	27%	23%	20%	17%	15%	13%	12%	11%	10%	9%	9%
62_Household Furniture Appl Furnishings Stores)	2,428	80%	65%	54%	46%	40%	34%	30%	26%	23%	21%	19%	16%	15%	14%	13%	13%	13%
63_Automobile Dealers Parts Accessories Sales Services	5,992	83%	68%	57%	50%	44%	39%	34%	31%	28%	26%	24%	22%	20%	19%	18%	17%	17%
64_Department Stores General Merchandise Stores	579	78%	62%	51%	42%	36%	29%	25%	23%	20%	18%	17%	15%	15%	14%	12%	11%	11%
65_Other Retail Industries	0																	
69_Non Store Retail Vending Machine Electronic mail-order	4,676	81%	68%	58%	51%	45%	39%	34%	30%	27%	25%	22%	20%	18%	17%	16%	15%	15%
70_Banks Trust Cmp Mortgage Cmp Credit Unions	650	55%	11%	8%	7%	6%	5%	4%	4%	3%	3%	3%	3%	2%	2%	2%	2%	2%
71_Consumer Business Financing Companies	60	83%	75%	68%	60%	55%	45%	38%	33%	32%	32%	28%	27%	27%	25%	23%	22%	22%
72_Investment Companies	2,979	86%	74%	65%	56%	49%	42%	38%	34%	30%	28%	25%	23%	21%	19%	17%	16%	16%
73_Insurance Industries	115	79%	70%	52%	48%	42%	41%	37%	37%	31%	26%	23%	21%	17%	17%	15%	14%	14%
74_Other Financial Industries	179	83%	75%	66%	55%	51%	46%	40%	37%	34%	32%	30%	26%	26%	25%	24%	22%	22%
75_Real Estate Operators	2,439	84%	73%	65%	58%	50%	45%	41%	38%	35%	31%	29%	27%	25%	24%	23%	22%	22%
76_Insurance Real Estate Agencies	1,997	85%	75%	68%	59%	53%	46%	41%	36%	33%	30%	27%	25%	24%	22%	20%	19%	19%
77_Business Services	10,360	84%	71%	62%	54%	47%	42%	37%	33%	30%	28%	25%	23%	21%	20%	19%	18%	18%
91_Accomodation Services Ind	1,553	79%	69%	59%	50%	43%	37%	31%	28%	26%	24%	23%	22%	20%	19%	18%	17%	17%
92_Restaurants Take-Out Food Taverns Bars Night Clubs	8,151	78%	60%	49%	40%	34%	28%	24%	22%	19%	17%	15%	13%	12%	11%	10%	10%	10%
96_Amusement Recreational Sevices Industries	2,433	76%	62%	53%	45%	40%	35%	31%	29%	26%	25%	23%	21%	19%	18%	17%	16%	16%
97_Personal Household Services	13,120	74%	54%	42%	34%	27%	22%	18%	15%	13%	11%	9%	8%	7%	6%	6%	5%	5%
98_Membership Organizations	1,820	79%	68%	62%	58%	54%	51%	48%	45%	43%	42%	39%	38%	35%	34%	33%	31%	31%
99_Other Service Industries	18,247	33%	22%	18%	15%	13%	11%	10%	9%	8%	7%	7%	6%	6%	5%	5%	5%	5%
00_Unknown sic	10,296	34%	16%	10%	7%	5%	3%	2%	2%	1%	1%	1%	1%	0%	0%	0%	0%	0%