

Small Business Growth: Searching for Stylized Facts

a Working Paper by Brian Headd, U.S. Small Business Administration, Office of Advocacy and Bruce Kirchhoff, New Jersey Institute of Technology

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Small Business Research Summary

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by Brian Headd, Office of Advocacy and Bruce Kirchhoff, New Jersey Institute of Technology, [30] pages

Purpose

While firm size data exists, little firm age data exists. This has hampered efforts to understand the life-cycle of firms overall and by industry. There is a need to document the dynamics of new firms and the effect of the business cycle on the growth, decline and survival of firms.

Overall Findings

Growing firms are generally a constant share of the economy with a minor business cycle effect; firms with employment growth outnumber firms with employment decline, and fast growing firms in a given year tend to revert to the mean in later years.

Highlights

- About 35 percent of employer (private sector, nonfarm, single-establishment) firms had no employment change from one year to the next, about 11 percent closed each year, about 25 percent shrank in employment each year and about 28 percent grew in employment each year.
- The employment change categories fluctuated little over the ten-year period from 1992 to 2002, but the growing firms' share did shrink around the 2000 to 2002 downturn, suggesting a slight business cycle effect.
- A cohort of new firms mirrored the growth distribution of the universe by about their fifth or sixth year.
- The number of firms by size class peaks in their start-up year and declines over time. Most firms start in the 1-4 employment size class and do not grow beyond this size class.
- Fast growing firms (defined as having a 50 percent or more increase in annual employment with at least a five-employee increase) were a small share of all firms, numbering 139,761 out of the universe of 4,234,118 firms, or three percent in 1992.

- Fast growing firms had higher rates of shrinkage in employment following their large one-year employment increase. The year after fast growth, 55 percent of fast growers declined in employment versus the universe's 25 percent. Former fast growers continued to have higher rates of employment decline for at least eight years after their large employment growth.
- Most firms remain a one-location firm as few expand to multiple locations or merged with other firms. Although data issues exist, no more than 119,000 single-establishment firms became part of multi-establishment firms during the decade of analysis.
- Firm survival rates were very similar for firms born in 1992 and 1997 with a 50 percent survival rate after four years for both time periods. This gives the impression that survival rates fluctuate little over time. The survival rates here mirrored survival rates found a few decades ago using D&B data, giving further evidence that survival rates fluctuate little over time and verifying the findings from studies using D&B data.
- Industries that grew in employment did not necessarily have higher rates of fast growers but industries with high rates of fast growers tended to have high rates of decliners. So while some industries tended to be volatile, this did not seem to impact their overall employment.
- The authors showed that a publicly available reoccurring firm age dataset could be developed from existing Census data while maintaining the privacy of individual firms. Their work could be used as a blueprint for others to develop such a dataset.

Scope and Methodology

The report uses special tabulations from the U.S. Census Bureau's Statistics of U.S. Businesses

This report was developed under a contract with the Small Business Administration, Office of Advocacy, and contains information and analysis that was reviewed and edited by officials of the Office of Advocacy. However, the final conclusions of the report do not necessarily reflect the views of the Office of Advocacy.

(SUSB) database to provide descriptive information showing how employer firms start, grow, are acquired or merged, or decline and close from 1992 to 2002. The tables are listed in the appendix and contain establishment and employment counts for cohorts, along with limited industry detail.

SUSB is based on Census' County Business Patterns, which is an establishment data set, but SUSB contains firm identifiers so firm data can be created. The special tabulations used focus on single-establishment firms to avoid firm age confusion caused by mergers and spin-offs. Focusing on single-establishment firms limits the study as the few firms that have explosive growth and open new establishments are excluded. Considering few firms become part of multi-establishment firms, the study focuses on the bulk of firms.

Nine propositions on the firm life-cycle were made and observations were used to verify or reject the propositions

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Small Business Growth: Searching for Stylized Facts

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Bruce Kirchhoff (New Jersey Institute of Technology)¹

Abstract

Using special tabulations from the U.S. Census Bureau, we use aggregate data to follow a cohort of firms over 10 years from their formation and the universe of existing firms to track their growth/decline in employment. We created a table to show the employment change categories for a cohort of new single establishment firms drawn from the 1992 universe of single establishment firms from 1992 to 2002. We also created tables to show the employment change categories for the universe of single establishment firms in the cohort defining declining and growing firms as separate sub-cohorts. Some industry detail is also described. We offer propositions related to firm growth and use data contained in the tables to seek verification.

The tables provide evidence that growing firms are generally a constant share of the cohort with a minor business cycle effect; firms with employment growth outnumber firms with employment decline; and fast growing firms in a given year tend to revert to the mean in later years. We divided the dataset into 83 industrial sectors and found that industry performance does not seem to have much impact on the number of fast growing or declining firms and industries with many fast growing firms also tend to have many fast declining firms.

The empirical findings of this paper establish some basic stylized facts about the life cycle of firms and they suggest the need for creating recurring firm age data.

Introduction

In Robert Lucas' (1978) seminal paper on firm size, he predicted that the world would be taken over by large businesses (and used a fried chicken franchise as his example). With the benefit of hindsight, this has largely not occurred. Advances in technology, shifts in consumer tastes toward services, more available financing, and other factors have allowed new and continuing small businesses to maintain their share of the economy.

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The statements, findings, conclusions, and recommendations found in this study are those of the authors and do not necessarily reflect the views of the Office of Advocacy, the United States Small Business Administration, or the United States government, or the New Jersey Institute of Technology.

Not only have small businesses maintained their share, but the bulk of those businesses are very small. Data from the U.S. Census Bureau's Statistics of U.S. Businesses (SUSB) shows that the median employer firm's size was four employees and the mean was 23 in recent years. Firms with fewer than 20 employees are almost all single establishment firms, as they averaged 1.01 establishments per firm while firms with 20-99 employees averaged 1.32 establishments. These two categories constitute 99 percent of all firms in the U.S. Most firms with 1 to 99 employees start and stay small. This steady state is not surprising considering many owners have minimal interest in growing. The National Federation of Independent Business (2001) found only about half of its member firms (over 600,000) wanted to grow and only about 10 percent wanted to be "growth" firms. With these smaller firms continuing to be a large component of our dynamic economy, we need to know more about their life-cycle dynamics.

The purpose of this paper is to document the year-to-year dynamics of the U.S. small business sector by following cohorts of small businesses through time. Comparative aggregate statistics derived from the U.S. Census Bureau's published tables seem to show a stable economy. However, they hide individual firm dynamics as they start, grow, shrink, and exit.

We begin this paper with a brief overview of the research on business dynamics. This review is followed by a series of propositions and presentations of tables that suggest conclusions about these propositions. We conclude with a discussion of caveats.

Research On Small Business Formation, Growth, Decline And Closure

Theoretically, existing firms could live forever, and they could grow and shrink as necessary to meet competitive conditions. But firms do not survive forever, very few last 100 years or more. Contradictions such as these make it clear that theoretical discussions of the life cycle of firms must conform to empirical observations. Over the last thirty years, researchers have carried out significant research relating to firm formation, growth, survival, decline, and closure while focusing on industry and firm characteristics. These small firm dynamic studies have taken three main paths: proportional growth, net job creation, and business survival. However, since most of the early findings were based on Dun & Bradstreet microdata and not a universal dataset, economists and statisticians were skeptical of the results because of the possibility of bias in the data collection methods (Williams, 1993). Second party data would be needed to verify the results.

With regard to economic research on growth, the focus has been on the Law of Proportional Effects, or Gibrat's Law. Gibrat's Law states that firm growth rate is independent of firm size. Research results testing Gibrat's Law have been mixed. Simon and Bonini (1958) studied five hundred largest firms in the U.S. during 1954-56 and found that there was no difference in growth rates by size of these large firms. However, Evans (1987, 1987b)

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² A very comprehensive review of the research in the 1980s and 1990s can be found in Caves (1998). More recent research is summarized in Haltiwanger, (2006).

³ Data by firm size data has been evolving. Although it dates back to 1954, the U.S. Census Bureau's Economic Census did not include most industries until 1992. And Census' other historical candidate, County Business Patterns, contains annual snapshots of the number of establishments (or business locations) not firms (or the entirety of the organization) and does not track establishments across years.

found that firm growth rate was negatively related to firm size. In other words, small firms grow faster than large firms do. Hall (1987) used data from manufacturing firms and found the same negative relationship between firm growth and size. Norton (1992) used the Compustat data files over a twenty-year period and found the negative relationship between size and growth rate to be quite robust.

While not a focus of this paper, the net employment growth by firm size has been at the center of a contentious debate the last few decades. David Birch (1979) used the D&B micro data and became a pioneer in small business research by finding that small firms created the majority of net new jobs in the U.S. between 1968 and 1976. At the time, Birch's research results were rejected by many (Davis, Haltiwanger and Schu, 1996). Following Birch (1987), Kirchhoff (1994), also found that small startup firms created the majority of net new jobs in the U.S. Birch's job generation findings have largely been corroborated using the more widely accepted SUSB (Acs, Armington, and Robb, 1999) and Bureau of Labor Statistics data (U.S. Bureau of Labor Statistics, 2005 and Okolie, 2004).

Finally, business survival has been another topic of research. Studying manufacturing, Dunne, Roberts and Samuelson (1988) documented longitudinal cohort of survival rates using the longitudinal Census of Manufactures data file. Their results showed that survival of manufacturing firms was much greater than the frequently quoted "failure" rates. Using Dun & Bradstreet based micro data, Phillips and Kirchhoff (1989) found survival rates of new businesses were much greater than the Dunne, et. al. finding and what was widely believed at the time. They also documented the increase of survival rates as firms become older and grow, and differences among industries and firm age. Audretsch and Acs (1994) evaluated much of the available research on the D&B based data and concluded that the patterns it yields, such as survival rates, are consistent with those from official Census records. Phillips and Kirchhoff's (1989) results were also corroborated using U.S. Census Bureau (Headd, 2003) and Bureau of Labor Statistics data (Knaup, 2005). Headd (2003) also discovered that many firm closures occur when owners perceive the firm as successful, calling into question the use of closure as a proxy for failure.

This research is useful for economists but it fails to yield a theory of why firms form, grow, decline, or close. Theory does not tell us why 10 to 12 percent of employer firms enter and exit each year, or how some new and existing firms grow while others, similar in many respects, decline, or close. In the absence of a true economic theory of firm dynamics, we prefer to offer a descriptive approach that shows what actually occurs. This empirical approach seeking stylized facts is also recommended by Coad (2007).

⁴ D&B data has been recently used for establishment growth analysis in California. A detailed explanation of the NETS database and its analysis can be found in: Neumark, David, Junfu Zhang and Brandon Wall, *Business Establishment Dynamics and Employment Growth*, Public Policy Institute of California, November 2005.

⁵ Business school literature on business strategy and factors leading to individual firm growth is understood as important by the authors but not viewed as germane to this paper.

While proportional growth, net job creation, and business survival have garnered much attention from researchers, there has been a dearth of basic facts about firm growth that only a longitudinal database of the universe of firms can offer. ⁶

Methodology

We use special tabulations from the U.S. Census Bureau's SUSB database to provide descriptive information showing how employer firms start, grow, are acquired, merged, or decline and close.⁷

SUSB is essentially an extension of Census County Business Patterns (CBP) with the addition of firm identifying codes on each establishment enabling the creation of either establishment or firm tabulations.⁸ CBP is populated from the Census Bureau's Company Organization Survey and the Economic Census in years ending in 2 and 7. SUSB contains individual establishment records for every year from 1989 through 2004 and is updated annually.⁹ As an extension of the static annual data SUSB tables, a longitudinally linked database of the universe of establishments Census created the "Business Information Tracking Series" (BITS).¹⁰

Per our request, Census extracted from BITS all records of firms identified as single establishment start-ups with employees. The U.S. Census Bureau produces special tabulations (at cost) as long as the results do not compromise the privacy of the underlying businesses.¹¹

Since BITS is a longitudinal file of establishments, it is difficult to determine the business age of multi-establishment firms. Multi-establishment firms can engage in mergers and spin-offs of establishments so it is not always clear which establishment's age would constitute the firm's age. To work around this issue, only single establishment firms with paid employees are tracked in this study, however single establishment firms becoming part of multi-establishment firms were recorded for completeness.

⁶ Note that the numerical results contained in the research are drawn from the entire population of non-farm firms in the U.S. Thus statistical tests for differences are meaningless since these are true differences drawn from the true population.

⁷ The authors would like to thank Trey Cole, U.S. Census Bureau, for his efforts in producing the tables. The authors would also like to acknowledge that the Office of Advocacy, U.S. Small Business Administration funded the special tabulations.

⁸ For published SUSB data see www.census.gov/csd/susb/susb.htm and/or www.sba.gov/advo/research/data.html. For an extended description of the methodology to create the data, see Armington (2004).

⁹ Census differentiates businesses as establishments and enterprises (firms). Establishments are places where work is performed. Firms are owners of establishments. Firms can have as few as one establishment or as many as hundreds. For example, the typical barbershop has one establishment. On the other hand, some of the largest companies can have over 1,000 establishments in the U.S.

¹⁰ In late-2005, the Bureau of Labor Statistics began to analyze its firm size data. They expanded their Business Employment Dynamics (BED) program to include quarterly job gains and losses by firm size dating back to mid-1992.

¹¹ Privacy considerations are a major reason for the nature of the data results presented herein as the authors did not have direct access to the data.

Excluding multi-establishment firms most likely excludes some high growth companies that Birch (1987) referred to as "gazelles," as gazelles would be expected to open other establishments early in their life. This study therefore examines the garden-variety growth of most firms, not the dramatic growth of a few companies. Focusing on these single establishment firms limits our study but renders it far from irrelevant because few firms have multiple establishments.

We follow various cohorts in the attached appendix tables. We created a cohort to contain only those establishments that are not in the BITS file in 1991 but appear in the file for the first time in 1992 (i.e. have payroll in 1992 but not in 1991). This is the definition of "start-up" firms throughout this research. Using this same set of rules, we created a second research cohort containing all firms identified as single establishment start-ups in 1997. In both the 1992 and 1997 research cohort files, the total number of firms declines over time until the files end in 2002. This decline in number of firms is due to the closures that occur. Other cohorts followed include all single establishment companies in 1992 and cohorts of growth firms (from 1992-1993 percent employment increase of 50 percent or more and a minimum increase of five employees with another set using a minimum increase of 20 employees). ¹²

Appendix A contains seven detailed tables on the life cycle of firms and their employment along with a brief description of the tables. Table A below summarizes the data.

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¹² These tables are similar to tables produced by the U.S. Small Business Administration's Small Business Data Base (SBDB) from Dun & Bradstreet (D&B) data a few decades ago. The SBDB covered the period of 1976 through 1988. Thus, the tables presented herein may serve as a comparison with the SBDB tables and as a way to determine societal changes that have occurred over the last two decades.

Table A: Summary of the Dynamics of Single Establishment Firms

	All F	rirms			tarted in 192	Fast Growing Firms*		
	1992-	2001-		1992-	2001-	1992-	2001-	
	1993	2002		1993	2002	1993	2002	
Initial year number of single estab. firms	4,234,118	4,774,866		538,145	171,605	139,761	78,034	
Closures	484,561	579,600		135,636	16,664	-	5,956	
Became part of a multi-estab. firm:	2,705	42,014	**	471	4,230	-	5,165	
with only one other estab. & <500 empl.	837	34,801	**	89	2,429	-	-	
with more than one estab. & <500 empl.	835	3,295		153	959	-	-	
with only one other estab. & 500+ empl.	39	620		4	31	-	-	
with more than one estab. & 500+ empl.	994	3,298		225	811	-	-	
Continuing as a single-estab. firm	3,746,852	4,153,252		402,038	150,711	139,761	66,913	
Employment Change:								
was -50.0% or less	302,751	335,802		41,580	12,146	-	5,481	
was between -25.0% and -49.9%	337,080	396,532		27,830	15,302	-	8,486	
was between -0.1% and -24.9%	417,162	495,259		18,818	17,968	-	16,053	
was 0	1,491,217	1,668,836		157,534	61,573	-	12,319	
was between 0 and 24.9%	365,919	398,343		16,855	13,993	-	12,676	
was between 25.0% and 49.9%	272,157	283,733		22,634	10,650	-	5,442	
was between 50.0% and 99.9%	228,400	243,096		30,441	8,507	47,495	3,355	
was between 100.0% and 199.9%	215,513	229,520		48,722	7,513	38,900	1,866	
was 200.0% or greater	116,653	102,131		37,624	3,059	53,366	1,235	

^{*} Annual employment growth of 50% or more in 1992-1993 with a minimum employment increase of five.

Source: Office of Advocacy, U.S. Small Business Administration, from data provided by the U.S. Census Bureau, Statistics of U.S. Businesses, special tabulations.

Propositions

Based upon previous research, discussions with many academics, business owners and economists, we developed nine propositions about business growth and we examine these using the special tabulations to shed light on the issues. These propositions emerge from earlier research literature or widely held views regarding small businesses. Following the statements of the propositions are a priori beliefs based on existing research followed by the results. The statistics reflect the period 1992 to 2002.

Proposition 1. Growing single establishment small firms are generally a constant percentage of an industry/economy, and that number fluctuates little over time

The view of many small business economists is that small businesses are a shock absorber for the economy, so the belief is that small growing firms would not fluctuate as much as large established firms (Boden, 1987, Popkin, 2003 and Kirchhoff and Phillips, 1988). During a downturn, large firm cutbacks leave openings for

^{**} Most likely inflated from corrections due to adjustments made from the Economic Census.

small/new firms to fill. The number of new firms fluctuates little from year to year. This could lead to small businesses as a whole showing little fluctuation over time.

Results

With the limited number of categories, and the fact that employment changes are in percentages rather than number of employees (which would probably be more appropriate considering that most of the firms have fewer than five employees), using the tables to find the distribution of growth is problematic. But zero employment change was clearly the mode at a consistent 35 to 36 percent of the single establishment firm cohort during the decade of analysis (Table B). Table B shows that the share of small single establishment firms that achieve employment growth of 50 percent or more varied little from 1992 to 1999, fluctuating between 12.4 and 13.4 percent. However, the low percentage of high growth firms (11.4 and 12.0 respectively) appearing during the 2000 – 2002 economic downturn suggests a business cycle effect. This slight business cycle effect also appears in the subtotal of all declining firms. But like growing firms, declining firms' share of the total fluctuated little over the period analyzed.

Overall, both growing firms and declining firms are generally a constant share of this cohort, with some business cycle effect. The proposition is accepted.

Table B. Percent of Continuing Single Establishment Firms by Employment Change Category

	1992- 1993	1993- 1994	1994- 1995	1995- 1996	1996- 1997	1997- 1998	1998- 1999	1999- 2000	2000- 2001	2001- 2002
Closed	11.4	11.5	11.2	11.2	11.3	11.5	11.5	11.4	11.5	12.1
Became part of a multi-estab.	0.1	0.1	0.1	0.2	0.9*	0.1	0.1	0.1	0.1	0.9*
Decline of 50% or more	7.2	7.7	6.8	6.8	6.5	6.7	6.5	6.3	6.6	7.0
Decline of 25 to 49.9%	8.0	7.7	7.5	7.8	7.6	7.7	7.6	7.4	7.9	8.3
Decline of 0.1 to 24.9%	9.9	9.5	9.4	10.0	9.7	10.0	10.0	9.8	10.5	10.4
Decline Sub Total	25.1	24.9	23.7	24.6	23.8	24.4	24.1	23.5	25.0	25.7
No change	35.2	34.8	35.5	35.8	35.7	36.0	36.3	36.2	36.5	35.0
Increase of 0.1 to 24.9%	8.6	8.9	9.2	9.0	9.0	9.0	9.2	9.5	9.2	8.3
Increase of 25 to 49.9%	6.4	6.7	6.9	6.5	6.5	6.5	6.5	6.8	6.3	5.9
Increase of 50% or more	13.2	13.1	13.4	12.6	12.8	12.4	12.4	12.6	11.4	12.0
Increase Sub Total	28.2	28.7	29.5	28.1	28.3	27.9	28.1	28.9	26.9	26.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Represents 4,234,118 firms in the 1992 to 1993 period. Closures are not included in the following year, while births are.

^{*} Most likely inflated from corrections due to adjustments made from the Economic Census.

¹³ The results suffer from the standard problem that increasing employees from 1 to 2 is a 100 percent increase while decreasing from 2 to 1 is a 50 percent decrease.

Proposition 2. The number of shrinking single establishment firms is essentially the same as the number of growing firms.

Perline, Axtell, and Teitelbaum (2006) showed the growth distribution of firms centered around zero. However, firms tend to start small for various reasons (not the least of which is financial constraints) and if things go well, grow. This gives the impression that growing firms would outnumber decliners. To test this proposition, we examine the number of firms with employment growth and compare this to the number with employment decline.

Results

Making the judgment that the number of births and deaths cancel each other out, Table B above shows that the percent of firms with employment growth was consistently greater than the percent declining. Over the ten-year period analyzed in Table B above, the annual share of growers was 28.1 percent while the share of decliners was 24.5 percent. We view this 3.6 percent difference to be significant enough to reject the proposition that the number of decliners offsets the number of growers.¹⁴

Proposition 3. Businesses grow rapidly in their first few years followed by tempered growth.

It is widely believed that small businesses grow rapidly in their first few years followed by tempered or no growth. Although it has been argued that existing firm growth has centered around zero, positive net job generation figures for firms with 1-4 employees hints that new firms' growth distribution would be positive. However, following Gibrat's Law, one would believe that growth would be relatively flat over time. Many of the studies verifying Gibrat's Law exclude start-up firms initial growth, so including them would seem to indicate that a chart showing growth on the y-axis and time on the x-axis would have an initial rise for the first few years followed by a flat line. Alternatively, growth can occur in "spurts" a phenomena Birch (1987) perceived in his research with D&B data. Birch found that fast growth in year "t" was followed by zero or negative growth in year "t+1" and this was followed by one or more growth years in the following two to three years (t+2 or t+3).¹⁵

Results

The first row in Table C shows that new single establishment firms had sharply declining closure rates over time as 25.2 percent closed in the first year while 9.7 percent closed in the tenth year. By about the fifth or sixth year the growth distribution for new firms is similar to the universe of single establishment firms as shown by comparing 1996-1997 for Tables B and C. The largest difference among these columns is the small difference between Table B's 9.7 percent of firms declining 0.1 to 24.9 percent in employment versus Table C's 7.6 percent. Until this convergence, the universe of new firms tended to have more extreme (50 percent or more) growth than decline. It is likely that this is simply an artifact of them being smaller and thus any employment

¹⁴ With regard to employment, growers out gained shrinkers as the net employment gain was positive. And although the figures are not listed, single establishment firms represented 50 percent of the private sector total net employment gain from 1992 to 2002.

¹⁵ The data presented herein is not adequate to identify the "spurt" phenomena in this cohort of firms.

change is a larger percent change for the firm. Surprisingly, the percentage of new firms that had employment growth during each year of their first decade was within about one percent of the percentage of the universe with annual employment growth (comparing the growth subtotals for Table B and C). The results of this analysis are ambiguous, but considering the average employment firm size is so low, the percentage categories are magnifying what is likely occurring. On the other hand, as employment increases, it becomes harder to maintain the rate of the increase.

Another interesting finding is that with a few exceptions, for this birth year cohort, the number of firms and the amount of employment in employment firm size categories peaks in year one and declines over time (Table 4).¹⁷ This means fewer firms grow into the larger employment size categories than firm closures in the larger employment size categories. However, the ranks of the smaller size classes decline much quicker than the larger size classes.

These results do not provide adequate evidence to support or reject the proposition.

Table C. Percent of Single Establishment Firms Started in 1992 by Employment Change Categories

	1992- 1993	1993- 1994	1994- 1995	1995- 1996	1996- 1997	1997- 1998	1998- 1999	1999- 2000	2000- 2001	2001- 2002
	1995	1334	1990	1990	1331	1330	1333	2000	2001	2002
Closed	25.2	17.9	15.0	13.3	12.2	11.4	10.5	9.9	9.5	9.7
Became part of a multi.	0.1	0.2	0.3	0.5	1.4	1.5	1.6	1.7	1.7	2.5*
Decline of 50% or more	7.7	10.2	8.2	8.0	7.5	7.5	7.0	6.6	6.8	7.1
Decline of 25 to 49.9%	5.2	6.9	7.3	8.0	8.0	8.1	8.0	8.2	8.5	8.9
Decline of 0.1 to 24.9%	3.5	5.1	6.2	7.3	7.6	8.4	8.9	9.2	10.1	10.5
Subtotal	16.4	22.2	21.7	23.3	23.1	24	23.9	24	25.4	26.5
No change	29.3	31.9	34.2	35.3	35.7	36.1	36.8	36.8	37.6	35.9
Increase of 0.1 to 24.9%	3.1	4.7	5.9	6.7	7.2	7.5	8.2	8.7	8.8	8.2
Increase of 25 to 49.9%	4.2	5.7	6.4	6.5	6.6	6.8	6.8	7.1	6.6	6.2
Increase of 50% or More	21.7	17.2	16.5	14.4	13.9	12.7	12.1	11.8	10.3	11.1
Subtotal	29.0	27.6	28.8	27.6	27.7	27	27.1	27.6	25.7	25.5

Represents 538,145 firms in the 1992 to 1993 period and declines to 171,605 firms by the 2001 to 2002 period.

Proposition 4. Fast growers have persistent growth and thus do not experience decline to the mean after their fast growth.

Only 21 percent of cohort firms had 10 or more employees in 2002, giving the impression that growth would last only a few years for most firms. Recent research by Perline, Axtell, and Teitelbaum (2006) found that the distribution of existing firms changes little over time and that growth has persistence. However, Dunne and

¹⁶ Haltiwanger (2006) reports this same observation although he measures this up and down variation in employment and labels it "volatility." He finds that volatility decreases with age and size of firm.

^{*} Most likely inflated from corrections due to adjustments made from the Economic Census.

¹⁷ Note that this observation was borne out of discussions with Scott Shane of Case Western Reserve University.

Hughes (1994) who focused on "larger" small firms found prior growth rates to be poor predictors of future growth rates. Birch (1987) also noted from analysis of his data that firms having periods of rapid growth frequently experienced periods of slow growth or decline shortly thereafter. The "larger firm" focus in Dunne and Hughes research causes us to believe that persistence will match the dataset including the very small firms (Perline, Axtell and Teitelbaum, 2006).

We have some concern that firms growing into multi-establishment firms and thus leaving the growth tables would skew the results. However, the second data row of Table C shows that single establishment firms becoming part of multi-establishment firms is a relatively rare occurrence.

Results

The year after fast growth (minimum employment increase of 5 employees), a disproportionate number of firms experienced decline in employment. The number of single establishment firms that grew fast from 1992 to 1993 and had employment declines from 1993 to 1994 was 55 percent (Table D). This was much higher than the figure of around 25 percent of single establishment firms declining in employment. In addition, over the next few years, the former fast growers from 1992 to 1993 continued to outpace the universe in the percent of single establishments declining in employment. The results indicate that being a fast grower is generally a one-year phenomena, possibly growth related to a short-term project, followed by reverting to the mean. The proposition is rejected.

Table D. Percent of Growth Firms That Have Annual Employment Declines vs. Declines for All Firms

	1993- 1994	1994- 1995	1995- 1996	1996- 1997	1997- 1998	1998- 1999	1999- 2000	2000- 2001	2001- 2002
Cohort of firms with 50 percent or more employment growth, and a min. inc. of 5 employees, 1992-1993	55.0	37.5	38.3	35.3	36.0	35.0	34.3	37.4	38.5
Universe of all single establishment firms	24.9	23.7	24.7	23.8	24.5	24.1	23.5	25.1	25.7

Proposition 5. Small single establishment firms tend to merge with or be acquired by small multi-establishment firms.

Merger research (Armington and Robb, 1998) finds small firms joining small firms and large firms joining large firms. They also found that the combined smalls tend to expand in employment and smalls that merge with large firms tend to shrink thereafter. This gives the impression that small firms merge to broaden product offerings, increase distribution capabilities, or create economies of scale to compete in an expanding market.

Results

The data in Table E show that, on average, small single establishment firms are slightly more likely to join firms

with fewer than 500 employees.¹⁸ However, considering most establishments belong to firms with fewer than 500 employees, large firms are almost as active merging with or acquiring small single establishment firms. Excluding economic census years, single establishment firms joined small multiple establishment firms with more than one other establishment (28.3 percent of joiners) at slightly higher rates than joining with one other establishment. This suggests that singles becoming part of multis is at least slightly more likely to be a merger of sorts rather than a single establishment opening a new location. It is also interesting to note that single establishment firms becoming part of a multiple establishment firm is a relatively rare occurrence, as shown in the second data row of Table B. From 1992 to 2002 and excluding the cleanup associated with the economic census years, the average percentage of singles becoming part of a multi was 0.1 percent. Considering the noisy nature of the data and the small numbers of events with regard to mergers and spin-offs, the results for this question are tenuous.

Table E. Average Annual Number of Single Establishment Firms Joining Other Firms by Firm Size

Size of firm joined	Number of other establishments in joined firm	Annual Avg.	Percent
			_
<500 Employees			
	One other establishment	1,181	27.0
	More than one establishment	<u>1,236</u>	<u>28.3</u>
	Total	2,417	55.2
500+ Employees			
	One other establishment	65	1.5
	More than one establishment	<u>1,893</u>	<u>43.3</u>
	Total	<u>1,958</u>	<u>44.8</u>
Total		4,374	100.0

Note: Excludes Economic Census years 1997 and 2002, which were artificially high due to limited information in non-Economic Census years for firms with fewer than 250 employees.

Proposition 6. Survival rates are similar over differing time periods.

Using different data sources, survival rates from the 1980s found by Phillips and Kirchhoff (1989), and survival rates from the 1990's found by Headd (2003) and Knaup (2005) were very similar. Survival rates are not expected to differ much across time except as affected by changes in the national economy.

Results

Similar to the other studies mentioned above, survival rates hovered around 50 percent after about 4 years, not the unsubstantiated and often misquoted 10 percent after the first year (see Table F). The data also show virtually identical survival rates for two separate periods. Comparing starts in only two periods does limit the findings however.

¹⁸ We recognize that many of the single-establishment firms joining multi-establishment firms around economic census years are in need of correction. This is common among firms with less than 500 employees but not with firms with 500 or more employees as the latter are surveyed on a more consistent basis.

The U. S. Small Business Administration's Small Business Data Base (SBDB) survival rates (Phillips and Kirchhoff, 1989) are not significantly different than that of the BITS. Both data sources reveal survival rates of a similar pattern and magnitude. This reinforces the conclusions of Audresch and Acs (1994) that the D&B data was closely representative of the reality of the U.S. economy during the 1978 – 1988 period. Furthermore, the similarity between the SBDB and BITS survival rates suggests that survival remained relatively constant from 1978 through 2002. Proposition 6 is accepted with careful caveats about the limited periods covered by the data.

Table F. Survival Rates (percentages)*

Year	1**	2	3	4	5	6	7	8	9	10
Firms started in 1992	75	64	56	50	45	40	37	34	31	29
Firms started in 1997	75	64	56	50	44					

^{*}This does not include firms that became part of multiple establishment firms. After 5 years, multis were only one percent of the original single establishment firms.

Industry Analysis

To facilitate industry analysis, we show the characteristics of 83 industries from 1998 to 2002. This period consistently used NAICS codes for industry identification. This industry detail allows focus on three additional questions.

Proposition 7. Growing industries will have a greater percentage of growing small firms.

It is likely that growing industries will attract new firms because of the growth in product and market expansions. The size of the subset of firms studied here are very small and their growth is probably more related to entering markets with innovations, filling niche markets, or achieving economies of scale. Whatever the case, an expanding industry will be an attractive opportunity for growth oriented small firms. Caves (1978) finds evidence of significant business turnover in growing industries and this turnover is correlated with the industry growth. Firm entries and exits are essentially the domain of very small firms. We are hypothesizing that growing firms are either expanding an industry or filling niches in expanding industries.¹⁹

Results

The 83 industries defined by their three-digit NAICS code from 1998 to 2002 were ranked from highest to lowest by percentage of employment growth. The highest 28 industries were considered high growth: the next 27 medium growth, and the last 28 low growth. We also ranked the 83 industries by the share of firms considered fast growers (employment increase of 50 percent with a minimum employment increase of 5). Table G shows

^{**} Technically this probably averages 1.5 years as the data captures a firm's existence in March whereas the firm started some time in the 12 months before the March in which it was identified.

¹⁹ For an extended discussion of the relationship of entrepreneurship and economic growth, see Carree and Thurik, 2005.

the results of this analysis. No significant relationship appears between high growth industries and percent of high growth firms. In addition, a Chi Square test of this three-by-three matrix is not significant and the numbers do not show any appearance of a relationship. Proposition 7 is not supported.

Table G: Number of Industries by Proportion of Fast Growers and Industry Employment Growth, 1998 to 2002

		Fast Growers	S	
		High	Medium	Low
Industry	High	11	8	9
Employment	Medium	7	6	14
Growth	Low	10	13	5

Proposition 8. Industries with many growing firms also tend to have many declining firms.

SUSB data shows geographic areas and industries having similar levels of entry and exit. This leads one to believe that industries would also have similar levels of growing and declining firms.

Results

Table H analyzes 83 industry categories from 1998 to 2002. It is apparent that Table H shows high correlation between an industry having fast growers and fast decliners as most industries are in the same category for both growers and decliners. A Chi Square test shows a statistically significant relationship here. This indicates that some industries tend to be volatile and some tend to be stable. Proposition 8 is supported by this result.

Table H: Number of Industries by Proportion of Fast Growers and Fast Decliners, 1998 to 2002

		Fast Grower	S	
		High	Medium	Low
Fast		21	7	0
Decliners	Medium	7	17	3
	Low	0	3	25

Proposition 9. Growing firms tend more toward high-tech industries.

The high-tech industries are often thought of as those industries with gazelles whereas low-tech industries are often thought to be dominated by stable firms milking cash cows. Considering that high-tech is more associated with service industries, and that services' share of the economy is growing, this leads one to believe that growing firms would tend toward high-tech.

Results

Computer & electronic product mfg (NAICS 334), Publishing industries (NAICS 511), Information & data processing services (NAICS 514), and Professional, scientific & technical services (NAICS 541), are arguably the industries most perceived as high-tech. Table I shows slightly lower rates of fast growers and decliners

among the four industries deemed high-tech. But realistically, the industry classification used in Table I is not precise enough to answer this question accurately.

Table I. Percent of Fast Growing and Declining Firms: High Tech vs. Total

1998-1999	1999-2000	2000-2001	2001-2002
3.0	3.2	2.8	2.6
2.7	2.9	2.7	1.9
1.5	1.5	1.6	2.0
1.1	1.1	1.2	1.8
	3.0 2.7 1.5	3.0 3.2 2.7 2.9 1.5 1.5	3.0 3.2 2.8 2.7 2.9 2.7 1.5 1.5 1.6

Words of Caution

Although the dataset used represents the universe of employers, concerns exist. Data processing, the use of aggregates over microdata, the period chosen, and using employment as a proxy for firm size need to be considered in accepting or questioning the results above.

First, several data processing issues exist. Table A clearly shows the effect of the cleanup associated with Census' conducting the more inclusive Economic Census in years 1992 and 1997 versus the Company Organization Survey completed by a sample of firms in the intermediate years. Mergers show a spike but as a share of all firms, they are a small percentage. The results also suffer from the standard problem that increasing from 1 employee to 2 is doubling while decreasing from 2 employees to 1 is a 50 percent decline. But results from Table 4 give the impression that firms tend to stay in their first year's employment size class, so the base employment size tends to be the employment level of year one. Additionally, the small employment movements indicated by Tables 1 through 4 indicate that growth/decline categories focusing on the number of employees added/subtracted would have produced better results. The last point shows the difficulties in working with aggregate data; more precise life cycles of firms could be followed with microdata.

Second, the period of 1992 to 2002 may turn out to be unique since service industries were rising sharply relative to manufacturing in the economy. In addition, the late 1990's saw a technology bubble in the venture capital markets. Furthermore, baby-boomers were in their most productive decade. Additionally, the data captures only the number of employees and not the quality or quantities of labor hours. Measuring payroll dollars is an option, but this would also require adjustments for inflation industry by industry – a complex data adjustment.

Next Steps

The results of the attached tables give us an idea of what longitudinal data for firms with one establishment can provide. This information could be used as a baseline to develop annual business age data. Discussions with

interested data producers and funders will facilitate the process of getting a new valuable data source on business age.²⁰

Because of the limitation of studying single establishment firms, one feature of business growth that is not completely captured here is those firms Birch named "gazelles." Using the definition of annual employment growth of 50 percent or more with employment growth of a minimum of 5 employees, about 3 percent of firms are fast growers. This is a relatively rare event indicating that the use of administrative data as apposed to survey data is needed to track them, but such data is difficult to obtain because of the problems of business firm confidentiality. In addition, mergers and spin-offs will need to be recorded more accurately to study fast growers.

Finally, the theory and reasons behind why the findings occurred in this empirical paper need to be analyzed more closely along with overcoming the limitation of the available datasets having only a few descriptive variables.

Conclusions

We probably know more about the life cycle of ants than we do the life cycle of businesses. This is not surprising considering the dearth of information by business age and the proliferation of animal science television shows. Simply stated, industrial organization and small business researchers are deprived of firm age data. The creation of tables following the growth and decline of single establishment firms (one-location companies) from U.S. Census data is an attempt to generate interest and rectify the situation. Because few firms grow beyond 500 employees and the few that do open branch establishments, this is essential a study of small and new businesses.

By analyzing the 1992 to 2002 period, we followed the ten-year life cycle of single establishment small firms. We also followed growth firms and displayed the distribution of growth among the universe of single establishment small firms. Single establishment firms were an integral to the economy during the decade of analysis as they accounted for about half of the private sector net employment increase.

The story developed here is that most firms do not grow much after start up, growing firms are generally a constant share of the universe with a minor business cycle effect, firms with employment growth slightly outnumber firms with employment decline, fast growing firms in one year tend to revert to the mean in later years, and business survival rates seem steady over time. Certain industries tend to be more volatile (lots of growing and declining firms) or steady (few growing or declining firms) but an industry's overall growth or decline did not seem to impact this by much.

²⁰ Feedback to the authors is sought after so specifications and data can be created by business age.

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Appendix (Add Tables)

To add to the previous research mentioned above, we commissioned Census to create tables from SUSB' BITS to follow business growth. Below are brief descriptions of the tables for employer firms.

Table 1 – The universe of single establishment firms, and their associated employment, are listed by annual employment percentage change category, including joining multiple establishment firms, from March 1992 to March 2002.

Table 2 – Firms born between March 1991 and March 1992, and their associated employment, are listed by annual employment percentage change category, including joining multiple establishment firms, and followed from March 1992 to March 2002.

Table 3 – Firms deemed fast growers (50 employment increase with a minimum employment increase of 5 or 20) from March 1992 to March 1993 are listed by annual employment percentage change category, including joining multiple establishment firms, and followed from March 1992 to March 2002.

Table 4 – The annual employment size categories, including joining multiple establishment firms, are listed for the number of firms born between March 1991 and March 1992 and born between March 1996 and March 1997 and followed to March 2002.

Table 5 – Lists the number of single establishment firms (50 percent employment change for 83 industry categories from March 1998 to March 2002.

Table 6 – Lists the number of single establishment, fast growing and declining firms (50 percent employment change with a minimum employment change of 5) for 83 industry categories from March 1998 to March 2002.

Table 7 – Lists the number of single establishment, fast growing and declining firms (50 percent employment change with a minimum employment change of 20 employees) for 83 industry categories from March 1998 to March 2002.

Table 1: Growth Distribution for Single-Establishment Employer Enterprises with Initial-Year Employment: 1992-2002

	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
Number of Enterprises						-			-	
Initial Year Total	4,234,118	4,311,214	4,381,017	4,481,831	4,588,414	4,613,854	4,667,660	4,706,762	4,741,033	4,774,866
Closures	484,561	494,150	488,699	503,882	517,374	532,237	536,372	534,802	545,536	579,600
Became Part of a Multi-Estab. Enterprise with Fewer Than 500 Emp	. 1,672	3,152	2,080	5,282	40,336	2,080	1,698	1,686	1,683	38,096
Multiunit Enterprise Has Only One Other Establishment	837	1,372	893	3,225	24,161	817	801	766	735	34,801
Multiunit Enterprise Has More Than One Other Establishment	835	1,780	1,187	2,057	16,175	1,263	897	920	948	3,295
Became Part of a Multi-Estab. Enterprise with 500 or More Emp.	1,033	2,021	2,033	2,383	1,889	2,611	1,877	2,059	1,644	3,918
Multiunit Enterprise Has Only One Other Establishment	39	60	72	140	118	71	41	60	38	620
Multiunit Enterprise Has More Than One Other Establishment	994	1,961	1,961	2,243	1,771	2,540	1,836	1,999	1,606	3,298
Continuing as a Single-Establishment Enterprise - Total	3,746,852	3,811,891	3,888,205	3,970,284	4,028,815	4,076,926	4,127,713	4,168,215	4,192,170	4,153,252
Employment Change is -50.0% or Less	302,751	332,248	296,282	305,570	300,125	310,118	304,465	295,598	315,214	335,802
Employment Change is Between -25.0% and -49.9%	337,080	332,839	329,367	350,329	347,022	357,529	353,152	349,912	376,423	396,532
Employment Change is Between -0.1% and -24.9%	417,162	408,638	413,252	449,552	443,025	460,600	465,970	462,359	499,104	495,259
Employment Change is 0	1,491,217	1,498,610	1,556,485	1,603,999	1,636,722	1,661,905	1,692,110	1,703,006	1,729,220	1,668,836
Employment Change is Between 0 and 24.9%	365,919	384,733	404,639	402,334	415,017	413,970	429,528	447,053	433,957	398,343
Employment Change is Between 25.0% and 49.9%	272,157	288,570	300,844	291,958	299,526	298,747	304,939	317,828	296,786	283,733
Employment Change is Between 50.0% and 99.9%	228,400	241,457	250,257	239,941	248,685	245,707	248,047	256,451	239,975	243,096
Employment Change is Between 100.0% and 199.9%	215,513	216,928	225,639	218,322	227,212	220,948	221,358	225,332	209,174	229,520
Employment Change is 200.0% or Greater	116,653	107,868	111,440	108,279	111,481	107,402	108,144	110,676	92,317	102,131
Number of Employees										
Initial Year Total	39,605,098	41,146,160	42,111,843	44,152,252	45,437,045	44,799,043	45,613,493	46,950,510	48,946,631	49,862,267
Closures	2,722,654	2,865,552	2,627,124	2,896,869	3,016,120	2,997,636	3,026,229	2,957,577	3,028,836	3,327,967
Became Part of a Multi-Estab. Enterprise with Fewer Than 500 Emp	. 92,386	150,414	115,113	236,966	1,815,578	119,568	99,268	104,845	99,661	1,850,443
Multiunit Enterprise Has Only One Other Establishment	48,630	83,487	61,686	154,847	886,091	54,629	53,402	55,747	51,960	1,744,722
Multiunit Enterprise Has More Than One Other Establishment	43,756	66,927	53,427	82,119	929,487	64,939	45,866	49,098	47,701	105,721
Became Part of a Multi-Estab. Enterprise with 500 or More Emp.	140,533	323,271	326,428	430,324	511,914	354,104	274,765	329,367	255,352	850,860
Multiunit Enterprise Has Only One Other Establishment	27,305	40,729	46,384	108,464	82,819	37,928	20,828	60,782	30,677	473,141
Multiunit Enterprise Has More Than One Other Establishment	113,228	282,542	280,044	321,860	429,095	316,176	253,937	268,585	224,675	377,719
Continuing as a Single-Establishment Enterprise - Total	36,649,525	37,806,923	39,043,178	40,588,093	40,093,433	41,327,735	42,213,231	43,558,721	45,562,782	43,832,997
Employment Change is -50.0% or Less	2,686,963	2,782,986	2,384,679	2,618,680	2,432,110	2,625,173	2,427,551	2,394,272	2,817,497	3,459,194
Employment Change is Between -25.0% and -49.9%	3,511,686	3,394,743	3,407,177	3,956,065	3,627,053	3,978,494	3,799,179	3,778,556	4,438,710	5,143,942
Employment Change is Between -0.1% and -24.9%	9,603,473	9,618,850	10,057,387	11,226,947	10,391,630	11,199,971	11,345,589	11,332,148	12,733,800	12,503,033
Employment Change is 0	5,598,098	5,604,792	5,808,775	6,017,122	6,096,271	6,188,198	6,336,656	6,375,192	6,569,212	6,236,928
Employment Change is Between 0 and 24.9%	9,759,243	10,408,900	10,934,917	10,785,332	11,228,346	11,134,601	11,860,246	12,608,026	12,595,987	10,793,264
Employment Change is Between 25.0% and 49.9%	2,918,239	3,215,461	3,497,283	3,245,838	3,407,711	3,365,086	3,550,241	3,866,597	3,505,323	3,068,135
Employment Change is Between 50.0% and 99.9%	1,562,463	1,747,668	1,863,938	1,707,636	1,821,451	1,786,421	1,835,497	2,037,455	1,871,595	1,687,418
Employment Change is Between 100.0% and 199.9%	720,208	749,441	792,177	748,233	790,047	763,128	775,359	841,207	763,295	682,070
Employment Change is 200.0% or Greater	289,152	284,082	296,845	282,240	298,814	286,663	282,913	325,268	267,363	259,013

Note: Time period is from March of the beginning year to March of the end year. The ranges for employment change are inclusive.

Source: 1989-2002 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/epcd/susb/introusb.htm and www.census.gov/epcd/susb/introusb.htm

Table 2: Growth Distribution for Single-Establishment Enterprises Starting in 1992 with Initial-Year Employment: 1992-2002

	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
Number of Enterprises										
Initial Year Total	538,145	402,509	343,375	302,849	270,889	244,089	221,396	202,293	185,829	171,605
Closures	135,636	72,096	51,531	40,296	33,026	27,710	23,311	20,098	17,717	16,664
Became Part of a Multi-Estab. Enterprise with Fewer Than 500 Emp.	242	516	603	865	2,951	2,847	2,707	2,495	2,366	3,388
Multiunit Enterprise Has Only One Other Establishment	89	199	225	388	1,546	1,481	1,408	1,322	1,237	2,429
Multiunit Enterprise Has More Than One Other Establishment	153	317	378	477	1,405	1,366	1,299	1,173	1,129	959
Became Part of a Multi-Estab. Enterprise with 500 or More Emp.	229	424	512	642	715	813	819	845	812	842
Multiunit Enterprise Has Only One Other Establishment	4	9	9	15	19	16	16	12	13	31
Multiunit Enterprise Has More Than One Other Establishment	225	415	503	627	696	797	803	833	799	811
Continuing as a Single-Establishment Enterprise - Total	402,038	329,473	290,729	261,046	234,197	212,719	194,559	178,855	164,934	150,711
Employment Change is -50.0% or Less	41,580	41,238	28,176	24,311	20,370	18,209	15,584	13,310	12,709	12,146
Employment Change is Between -25.0% and -49.9%	27,830	27,837	24,971	24,196	21,617	19,839	17,734	16,586	15,798	15,302
Employment Change is Between -0.1% and -24.9%	18,818	20,689	21,227	22,233	20,670	20,606	19,695	18,702	18,815	17,968
Employment Change is 0	157,534	128,355	117,354	106,782	96,594	88,204	81,520	74,432	69,792	61,573
Employment Change is Between 0 and 24.9%	16,855	19,096	20,280	20,221	19,398	18,389	18,126	17,616	16,419	13,993
Employment Change is Between 25.0% and 49.9%	22,634	22,956	22,093	19,599	18,008	16,539	15,045	14,279	12,254	10,650
Employment Change is Between 50.0% and 99.9%	30,441	26,014	22,785	18,580	16,226	13,932	12,275	11,212	9,206	8,507
Employment Change is Between 100.0% and 199.9%	48,722	28,822	22,999	17,278	14,980	11,997	10,301	9,006	7,310	7,513
Employment Change is 200.0% or Greater	37,624	14,466	10,844	7,846	6,334	5,004	4,279	3,712	2,631	3,059
Number of Employees										
Initial Year Total	2,924,794	2,735,693	2,538,914	2,489,615	2,380,498	2,245,491	2,171,769	2,107,822	2,078,706	1,979,807
Closures	646,154	378,449	272,177	217,474	188,000	164,645	146,870	122,020	122,395	116,073
Became Part of a Multi-Estab. Enterprise with Fewer Than 500 Emp.	7,328	17,511	17,945	30,147	125,452	81,822	77,984	74,278	73,326	127,065
Multiunit Enterprise Has Only One Other Establishment	2,995	7,164	8,595	15,452	55,495	41,750	39,701	38,532	36,781	95,760
Multiunit Enterprise Has More Than One Other Establishment	4,333	10,347	9,350	14,695	69,957	40,072	38,283	35,746	36,545	31,305
Became Part of a Multi-Estab. Enterprise with 500 or More Emp.	21,756	99,349	116,207	167,807	192,692	205,629	238,982	253,503	245,281	258,561
Multiunit Enterprise Has Only One Other Establishment	8,993	3,768	4,176	5,139	6,649	6,199	6,210	5,416	8,620	14,991
Multiunit Enterprise Has More Than One Other Establishment	12,763	95,581	112,031	162,668	186,043	199,430	232,772	248,087	236,661	243,570
Continuing as a Single-Establishment Enterprise - Total	2,249,556	2,240,384	2,132,585	2,074,187	1,874,354	1,793,395	1,707,933	1,658,021	1,637,704	1,478,108
Employment Change is -50.0% or Less	288,116	323,215	211,111	196,804	157,269	140,980	119,586	106,089	109,347	133,164
Employment Change is Between -25.0% and -49.9%	248,661	255,089	234,482	246,859	214,913	200,041	178,448	164,599	186,258	191,227
Employment Change is Between -0.1% and -24.9%	387,121	404,441	424,106	462,984	410,505	441,272	409,021	396,083	421,548	401,727
Employment Change is 0	345,621	327,868	323,756	314,532	296,905	280,976	272,962	257,840	249,376	221,787
Employment Change is Between 0 and 24.9%	377,327	412,780	448,387	448,243	430,393	402,388	424,008	423,964	422,817	326,076
Employment Change is Between 25.0% and 49.9%	197,261	215,328	220,840	199,776	188,400	174,940	168,114	175,554	139,890	116,030
Employment Change is Between 50.0% and 99.9%	177,579	170,243	164,268	127,309	110,317	100,736	90,207	91,341	77,651	60,789
Employment Change is Between 100.0% and 199.9%	141,426	94,034	77,641	58,508	49,724	39,654	34,800	31,306	24,439	20,467
Employment Change is 200.0% or Greater	86,444	37,386	27,994	19,172	15,928	12,408	10,787	11,245	6,378	6,841
Notes: The ranges for employment change are inclusive.										

Notes: The ranges for employment change are inclusive.

The number of enterprises starting in 1992 is defined as the number of single-establishment enterprises with 0 employment as of March 12, 1991 and positive employment as of March 12, 1992. The number of enterprises and corresponding employment for each span of years is defined by the number of 1992 start-up enterprises with positive employment as of March 12 in the initial year.

Source: 1989-2002 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, seewww.census.gov/epcd/susb/introusb.htm and <a href="https://www.census.gov/epcd/susb/introusb.h

Table 3: Growth Distribution for Fast-Growing Single-Establishment Enterprises in 1992: 1992-2002

	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
Number of Enterprises - Percent Employment Increase of 50% or	More and a M	Iinimum Incr	ease of 5 Em	ployees from	1992-1993					
Initial Year Total	139,761	139,761	127,967	117,780	109,302	101,496	94,378	88,279	82,883	78,034
Closures	-	11,794	11,169	9,617	8,757	7,995	6,900	6,195	5,597	5,956
Has Become Part of a Multi-Establishment Enterprise	-	439	705	1,209	4,385	4,472	4,372	4,233	4,071	5,165
Continuing as a Single-Establishment Enterprise - Total	139,761	127,528	116,093	106,954	96,160	89,029	83,106	77,851	73,215	66,913
Employment Change is -50.0% or Less	-	30,339	11,847	9,625	7,716	6,997	5,875	5,034	5,117	5,481
Employment Change is Between -25.0% and -49.9%	-	21,665	14,109	13,176	10,942	10,236	9,037	8,239	8,320	8,486
Employment Change is Between -0.1% and -24.9%	-	24,831	21,995	22,342	19,955	19,266	18,160	16,967	17,555	16,053
Employment Change is 0	-	8,393	15,396	15,944	15,697	15,092	14,831	14,138	13,805	12,319
Employment Change is Between 0 and 24.9%	-	19,885	22,134	20,779	19,375	18,182	17,599	16,913	15,321	12,676
Employment Change is Between 25.0% and 49.9%	-	10,865	13,450	11,490	10,025	9,037	8,375	7,979	6,555	5,442
Employment Change is Between 50.0% and 99.9%	47,495	7,581	9,291	7,334	6,557	5,412	4,934	4,548	3,612	3,355
Employment Change is Between 100.0% and 199.9%	38,900	2,979	4,890	3,836	3,567	2,935	2,594	2,475	1,944	1,866
Employment Change is 200.0% or Greater	53,366	990	2,981	2,428	2,326	1,872	1,701	1,558	986	1,235
Number of Enterprises - Percent Employment Increase of 50% or	More and a M	Iinimum Incr	rease of 20 Er	nployees fror	n 1992-1993					
Initial Year Total	24,602	24,602	22,426	20,695	19,165	17,736	16,546	15,515	14,647	13,846
Closures	-	2,176	1,887	1,666	1,549	1,314	1,140	978	888	1,052
Has Become Part of a Multi-Establishment Enterprise	-	243	388	643	1,759	1,817	1,788	1,727	1,652	1,954
Continuing as a Single-Establishment Enterprise - Total	24,602	22,183	20,151	18,386	15,857	14,605	13,618	12,810	12,107	10,840
Employment Change is -50.0% or Less	-	6,198	2,297	1,736	1,275	1,155	979	819	862	944
Employment Change is Between -25.0% and -49.9%	-	3,237	2,259	2,157	1,725	1,538	1,361	1,292	1,327	1,396
Employment Change is Between -0.1% and -24.9%	-	4,428	4,382	4,700	3,933	3,842	3,593	3,362	3,517	3,185
Employment Change is 0	-	420	1,304	1,400	1,402	1,391	1,350	1,310	1,337	1,145
Employment Change is Between 0 and 24.9%	-	4,102	4,872	4,457	4,003	3,778	3,639	3,455	3,101	2,437
Employment Change is Between 25.0% and 49.9%	-	1,796	2,272	1,775	1,565	1,322	1,256	1,233	988	773
Employment Change is Between 50.0% and 99.9%	6,938	1,292	1,493	1,109	985	786	733	704	525	466
Employment Change is Between 100.0% and 199.9%	5,808	524	766	587	541	453	393	356	279	260
Employment Change is 200.0% or Greater	11,856	186	506	465	428	340	314	279	171	234

Notes: The ranges for employment change are inclusive.

The number of fast-growing enterprises is defined as the number of single-establishment enterprises with: positive employment as of March 12 in both 1992 and 1993, a percent increase employment of 50% or more, and a minimum net increase in employment of either 5 or 20 employees.

Source: 1989-2002 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/epcd/susb/introusb.htm and www.census.gov/csd/susb/defterm.html.

Table 4: Enterprise Size Distribution for Single-Establishment Enterprises Starting in 1992 and 1997, Respectively, Tracked Through 2002

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Enterprises Starting in 1992											
No Longer in Operation	0	135,636	194,770	235,296	267,256	294,056	316,749	335,852	352,316	366,540	380,008
Has Become Part of a Multi-Estab. Enterprise with Fewer Than 500 Emp.	0	242	526	607	868	2,967	2,859	2,716	2,503	2,376	3,406
Has Become Part of a Multi-Estab. Enterprise with 500 or More Emp.	0	229	436	519	647	717	819	826	848	819	850
Continuing as a Single-Establishment Enterprise - Total	538,145	402,038	342,413	301,723	269,374	240,405	217,718	198,751	182,478	168,410	153,881
Enterprise Has 1-4 Employees	403,547	273,242	225,092	190,592	165,343	144,918	128,509	114,977	102,983	94,188	86,137
Enterprise Has 5-9 Employees	78,875	71,839	64,749	59,772	55,275	50,522	46,526	42,888	39,937	36,798	33,647
Enterprise Has 10-19 Employees	33,766	34,424	31,605	30,269	28,478	26,442	24,889	23,540	22,432	20,925	19,585
Enterprise Has 20-99 Employees	20,155	20,737	19,175	19,272	18,537	16,962	16,276	15,806	15,549	14,932	13,261
Enterprise Has 100-249 Employees	1,411	1,403	1,422	1,422	1,378	1,243	1,204	1,216	1,239	1,238	987
Enterprise Has 250-499 Employees	258	277	258	280	255	217	219	229	236	234	192
Enterprise Has 500+ Employees	133	116	112	116	108	101	95	95	102	95	72
Enterprises Starting in 1997											
No Longer in Operation	0	0	0	0	0	0	144,310	210,015	255,874	292,357	324,399
Has Become Part of a Multi-Estab. Enterprise with Fewer Than 500 Emp.	0	0	0	0	0	0	398	559	611	638	2,835
Has Become Part of a Multi-Estab. Enterprise with 500 or More Emp.	0	0	0	0	0	0	482	688	820	817	972
Continuing as a Single-Establishment Enterprise - Total	0	0	0	0	0	584,451	439,261	373,189	327,146	290,639	256,245
Enterprise Has 1-4 Employees	0	0	0	0	0	444,306	304,537	247,082	208,030	181,143	158,209
Enterprise Has 5-9 Employees	0	0	0	0	0	81,739	74,840	67,885	62,439	56,361	51,260
Enterprise Has 10-19 Employees	0	0	0	0	0	35,842	36,234	34,833	33,133	30,598	27,440
Enterprise Has 20-99 Employees	0	0	0	0	0	20,616	21,673	21,383	21,348	20,377	17,723
Enterprise Has 100-249 Employees	0	0	0	0	0	1,507	1,559	1,574	1,693	1,662	1,247
Enterprise Has 250-499 Employees	0	0	0	0	0	313	285	289	361	349	262
Enterprise Has 500+ Employees	0	0	0	0	0	128	133	143	142	149	104

Notes: The enterprise size employee ranges are inclusive and represent the enterprise size as of the year in the column header.

The number of enterprises starting in 1992 is defined as the number of single-establishment enterprises with 0 employment as of March 12, 1991 and positive employment as of March 12, 1992. The number of enterprises starting in 1997 is defined as the number of single-establishment enterprises with 0 employment as of March 12, 1996 and positive employment as of March 12, 1997. The number of enterprises that are no longer in operation in a given year are the number of 1992 or 1997 enterprise start-ups, respectively, with 0 employment as of March 12 of the given year.

Source: 1989-2003 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/esd/susb/introusb.htm and www.census.gov/csd/susb/introusb.htm and www.census.gov/esd/susb/introusb.htm and www.census.gov/esd/susb/introusb

Table 5: Initial Year Single-Establishment Enterprises: 1998-2002

Likial Van Cinala Establi I. (E.)	1 34	1998-1999	1999-2000	2000-2001	2001-2002	Rank
Initial-Year Single-Establishment Enterprises with	I or Mor		4.706.762	4 741 022	4 774 966	
Total	11	4,667,660	4,706,762	4,741,033	4,774,866	
Forestry, fishing, hunting, and ag. support	11	21,454	21,400	20,703	21,368	
Mining	21	16,254	15,343	15,192	15,682	
Utilities	22	5,302	5,374	5,687	6,093	
Construction	23	575,370	587,661	596,533	590,814	
Manufacturing	31-33	272,983	268,166	264,056	264,210	
Wholesale trade Retail trade	42	298,220	294,674	292,414	287,680	
	44-45	614,418	608,187	609,841	614,131	
Transportation & warehousing	48-49	124,754	127,413	128,907	130,166	
Information Finance & insurance	51 52	58,572 179,531	59,749	62,428	62,375	
	53	179,331	183,330	185,316 200,927	190,289 203,972	
Real estate & rental & leasing			199,651			
Professional, scientific & technical services	54	529,282	543,981	554,469	569,147	
Management of companies & enterprises	55	3,848	4,545	4,959	5,048	
Admin, support, waste mgt, remediation srv.	56	240,738	243,874	244,523	251,132	
Educational services	61	48,764	50,237	51,627	53,913	
Health care and social assistance	62	458,384	458,186	462,148	472,682	
Arts, entertainment & recreation	71 72	73,740	74,456	75,412	77,236	
Accommodation & food services	72	339,128	339,640	339,100	342,021	
Other services (except public administration)	81	587,901	589,914	591,420	592,355	
Auxiliaries (exc corporate, subsidiary & reg. mgt)	95	1	30.079	5	24.548	
Unclassified establishments	99	21,199	30,978	35,366	24,548	
Forestry and logging	113	11,851	11,660	11,332	11,019	
Fishing, hunting & trapping	114	1,552	1,610	1,664	1,720	
Agriculture & forestry support activities	115	8,051	8,130	7,707	8,629	
Oil & gas extraction	211	5,663	5,272	5,279	5,334	
Mining (except oil & gas)	212	3,731	3,635	3,636	3,627	
Mining support activities	213	6,860 5,303	6,436	6,277	6,721	
Utilities	221	5,302	5,374	5,687	6,093	
Building, developing & general contracting	233	174,814	179,221	179,775	180,320	
Heavy construction	234	33,501	33,425	33,127	34,364	
Special trade contractors	235	367,055	375,015	383,631	376,130	
Food mfg	311	18,907	18,168	17,970	18,239	
Beverage & tobacco product mfg	312	1,725	1,742	1,828	2,126	
Textile mills	313	3,032	2,965	2,927	2,940	
Textile product mills	314	5,728	5,836	5,625	5,688	
Apparel manufacturing	315	13,480	12,485	12,647	12,485	
Leather & allied product mfg	316	1,386	1,348	1,370	1,390	
Wood product mfg Paper mfg	321 322	13,391	13,224	13,159	13,180	
		2,944	2,895	2,847	2,850	
Printing & related support activities Petroleum & coal products mfg	323	36,205 713	35,120 721	33,662 700	32,761 703	
	324				7,313	
Chemical mfg	325	7,295	7,279	7,275		
Plastics & rubber products mfg	326	10,826	10,708 9,498	10,406	10,207	
Nonmetallic mineral product mfg	327	9,585		9,339	9,441	
Primary metal mfg	331	3,175	3,341	3,748	4,143	
Fabricated metal product mfg	332	51,916	51,246	50,214	50,243	
Machinery mfg	333 334	23,452	23,069	22,437	22,202	
Computer & electronic product mfg		12,178	11,971	11,779	11,857	
Electrical equip, appliance & component mfg	335	4,663	4,627	4,605 8,667	4,519 8,620	
Transportation equipment mfg	336	8,939	8,813	8,667	8,620	
Furniture & related product mfg	337	17,148	16,970	16,768	17,489	
Miscellaneous mfg	339	26,295	26,140	26,083	25,814	
Wholesale trade, durable goods	421	191,274	189,208	188,157	185,066	
Wholesale trade, nondurable goods	422	106,946	105,466	104,257	102,614	
Motor vehicle & parts dealers	441	81,558	80,434	81,262	81,978	
Furniture & home furnishing stores	442	40,038	39,902	40,297	41,491	

Table 5: Initial Year Single-Establishment Enterprises: 1998-2002 - continued

		1998-1999	1999-2000	2000-2001	2001-2002	Rank
Electronics & appliance stores	443	26,262	26,416	26,593	27,543	
Bldg material & garden equip & supp dealers	444	56,587	55,938	55,777	57,649	
Food & beverage stores	445	92,592	93,168	96,228	98,202	
Health & personal care stores	446	37,029	36,650	36,654	36,977	
Gasoline stations	447	58,137	56,268	54,778	53,727	
Clothing & clothing accessories stores	448	58,533	57,023	56,484	56,752	
Sporting goods, hobby, book & music stores	451	37,818	37,002	36,136	35,717	
General merchandise stores	452	8,449	8,730	8,749	8,654	
Miscellaneous store retailers	453	88,318	88,296	87,501	86,761	
Nonstore retailers	454	29,097	28,360	29,382	28,680	
Air transportation	481	1,833	1,850	1,947	1,988	
Water transportation	483	1,051	1,063	1,071	1,056	
Truck transportation	484	77,900	80,079	81,077	81,288	
Transit & ground passenger transportation	485	12,269	12,064	12,144	12,202	
Pipeline transportation	486	94	95	95	109	
Scenic & sightseeing transportation	487	1,544	1,560	1,561	1,638	
Transportation support activities	488	20,792	21,112	21,152	21,511	
Couriers & messengers	492	6,107	6,321	6,464	6,772	
Warehousing & storage	493	3,164	3,269	3,396	3,602	
Publishing industries	511	23,128	22,172	21,683	21,226	
9	512					
Motion picture & sound recording industries	513	13,534	13,719	13,770	14,098	
Broadcasting & telecommunications		12,775	13,457	14,026	13,952	
Information & data processing services	514	9,135	10,401	12,949	13,099	
Monetary authorities - central bank	521	1	20.441	5	13	
Credit intermediation & related activities	522	37,493	39,441	39,623	40,564	
Security, commodity contracts & like activity	523	30,872	31,873	33,784	36,628	
Insurance carriers & related activities	524 525	110,578	111,246	110,888	111,937	
Funds, trusts, & other financial vehicles (part)	525	587	768	1,016	1,147	
Real estate	531	167,862	170,625	173,224	176,747	
Rental & leasing services	532	28,602	27,640	26,315	25,767	
Lessors of other nonfinancial intangible asset	533	1,353	1,386	1,388	1,458	
Professional, scientific & technical services	541	529,282	543,981	554,469	569,147	
Management of companies & enterprises	551	3,848	4,545	4,959	5,048	
Administrative & support services	561	228,737	232,230	233,282	239,299	
Waste management & remediation services	562	12,001	11,644	11,241	11,833	
Educational services	611	48,764	50,237	51,627	53,913	
Ambulatory health care services	621	352,760	351,445	354,070	361,002	
Hospitals	622	2,192	2,188	2,230	2,295	
Nursing & residential care facilities	623	24,451	25,078	25,128	25,724	
Social assistance	624	78,981	79,475	80,720	83,661	
Performing arts, spectator sports, & related indus	stri (711	23,657	23,938	24,600	25,579	
Museums, historical sites & like institutions	712	4,527	4,630	4,672	4,910	
Amusement, gambling & recreation industries	713	45,556	45,888	46,140	46,747	
Accommodation	721	38,871	39,003	39,207	40,038	
Food services & drinking places	722	300,257	300,637	299,893	301,983	
Repair & maintenance	811	191,152	190,412	188,717	188,264	
-	812	135,125	135,470	136,836	136,214	
Personal & laundry services	012	133,123	133,470	130,030	130,217	

Source: 1989-2003 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/epcd/susb/introusb.htm and www.census.gov/csd/susb/defterm.html.

Table 6: Industry Distribution of Fast-Growing and Fast-Declining Single-Establishment Enterprises (5 employees): 1998-2002

		Fast-Growing	, with an Incre	ase of 5 or Mo	ore Employees		Fast-Declining	g, with a Decre	ease of 5 or M	ore Employees	,
		1998-1999	1999-2000	2000-2001	2001-2002	Rank	1998-1999	1999-2000	2000-2001	2001-2002	Rank
Total		141,461	150,372	130,598	125,910		71,649	68,345	77,097	94,414	
Forestry, fishing, hunting, and ag. support	 11	706	689	533	567	12	485	459	531	506	8
Mining	21	390	682	685	468	8	555	275	290	459	6
Utilities	22	84	119	103	98	18	47	35	54	81	18
Construction	23	30,508	29,553	23,828	22,656	3	13,258	13,913	15,696	17,482	2
Manufacturing	31-33	9,785	10,758	8,590	6,933	9	5,516	4,571	5,619	9,124	9
Wholesale trade	42	7,727	8,498	7,293	6,190	14	4,174	3,599	4,055	5,491	13
Retail trade	44-45	13,150	14,290	12,810	13,262	16	7,267	6,942	7,992	9,433	14
Transportation & warehousing	48-49	4,370	4,532	3,823	3,409	10	2,031	1,979	2,346	2,891	10
Information	51	2,840	3,305	3,115	1,627	2	1,229	1,152	1,522	2,240	3
Finance & insurance	52	3,479	3,098	3,195	3,177	19	1,506	1,956	1,617	2,010	20
Real estate & rental & leasing	53	3,349	3,579	3,051	3,082	20	1,925	1,887	1,939	2,188	19
Professional, scientific & technical services	54	13,234	14,474	13,384	10,216	15	5,578	5,649	6,368	9,449	15
Management of companies & enterprises	55	113	141	145	87	11	56	68	76	84	11
Admin, support, waste mgt, remediation srv.	56	11,346	12,138	9,855	9,729	4	5,784	5,428	6,243	7,604	5
Educational services	61	1,855	2,026	1,958	2,221	6	815	749	841	1,111	12
Health care and social assistance	62	11,449	12,410	12,197	13,139	13	5,610	4,990	5,233	6,461	16
Arts, entertainment & recreation	71	3,258	3,601	2,780	3,173	5	1,812	1,677	2,073	2,157	4
Accommodation & food services	72	12,889	14,252	12,351	13,982	7	8,064	7,377	8,111	8,412	7
Other services (except public administration)	81	10,717	11,656	10,671	11,849	17	5,777	5,464	6,096	7,199	17
Auxiliaries (exc corporate, subsidiary & reg. mgt)	95	0	1	0	0	1	0	0	1	0	1
Unclassified establishments	99	212	570	231	45	21	160	175	394	32	21
Forestry and logging	113	380	360	271	316	53	286	265	325	273	27
Fishing, hunting & trapping	114	40	33	35	27	69	23	32	25	37	44
Agriculture & forestry support activities	115	286	296	227	224	45	176	162	181	196	34
Oil & gas extraction	211	74	115	115	71	80	97	46	56	78	68
Mining (except oil & gas)	212	155	187	148	162	17	130	114	131	172	5
Mining support activities	213	161	380	422	235	18	328	115	103	209	16
Utilities	221	84	119	103	98	75	47	35	54	81	80
Building, developing & general contracting	233	8,013	7,995	6,165	6,183	26	3,943	4,073	4,552	5,056	24
Heavy construction	234	2,849	2,777	1,950	2,078	4	1,246	1,205	1,423	1,734	3
Special trade contractors	235	19,646	18,781	15,713	14,395	13	8,069	8,635	9,721	10,692	23
Food mfg	311	754	691	642	663	39	354	393	380	538	35
Beverage & tobacco product mfg	312	105	100	103	90	5	56	28	46	78	12
Textile mills	313	113	113	99	101	42	109	84	84	126	8
Textile product mills	314	180	189	139	148	52	100	103	100	160	40
Apparel manufacturing	315	807	857	584	550	7	707	499	595	790	2
Leather & allied product mfg	316	41	45	44	39	48	46	31	45	66	6
Wood product mfg	321	626	635	413	439	29	318	272	415	515	15
Paper mfg	322	127	131	105	90	34	44	39	66	125	31
Printing & related support activities	323	652	722	577	491	79	382	349	431	572	71

Table 6: Industry Distribution of Fast-Growing and Fast-Declining Single-Establishment Enterprises (5 employees): 1998-2002 - continued

		Fast-Growing, with an Increase of 5 or More Employees					Fast-Declining	g, with a Decre	ease of 5 or M	ore Employees	
		1998-1999	1999-2000	2000-2001	2001-2002	Rank	1998-1999	1999-2000	2000-2001	2001-2002	Rank
Petroleum & coal products mfg	324	30	35	23	28	25	13	17	23	30	13
Chemical mfg	325	283	333	278	245	30	126	110	134	223	39
Plastics & rubber products mfg	326	557	604	387	322	19	222	202	292	421	18
Nonmetallic mineral product mfg	327	442	461	321	342	24	205	185	244	297	26
Primary metal mfg	331	103	195	178	123	12	78	63	96	193	7
Fabricated metal product mfg	332	1,671	1,996	1,580	1,041	49	1,003	724	896	1,930	36
Machinery mfg	333	658	749	689	450	54	463	356	442	885	33
Computer & electronic product mfg	334	585	757	778	355	9	353	265	272	607	11
Electrical equip, appliance & component mfg	335	192	229	196	103	33	93	91	73	207	25
Transportation equipment mfg	336	416	489	347	272	20	194	171	252	334	17
Furniture & related product mfg	337	685	669	448	468	43	247	226	337	467	45
Miscellaneous mfg	339	758	758	659	573	57	403	363	396	560	56
Wholesale trade, durable goods	421	4,863	5,400	4,700	3,719	60	2,573	2,232	2,522	3,446	61
Wholesale trade, nondurable goods	422	2,864	3,098	2,593	2,471	58	1,601	1,367	1,533	2,045	57
Motor vehicle & parts dealers	441	1,600	1,813	1,558	1,778	71	843	765	916	1,096	77
Furniture & home furnishing stores	442	942	1,023	862	861	63	409	412	484	576	72
Electronics & appliance stores	443	751	775	704	561	55	346	329	421	509	57
Bldg material & garden equip & supp dealers	444	1,266	1,478	1,094	1,279	66	617	594	746	846	67
Food & beverage stores	445	1,872	2,085	2,129	2,232	67	1,110	1,098	1,286	1,623	62
Health & personal care stores	446	741	873	876	901	65	438	372	440	558	69
Gasoline stations	447	1,489	1,403	1,268	1,320	62	953	912	945	1,214	51
Clothing & clothing accessories stores	448	1,030	1,127	1,088	1,134	77	643	636	610	746	76
Sporting goods, hobby, book & music stores	451	782	828	716	741	73	413	389	434	475	75
General merchandise stores	452	165	183	156	184	72	111	86	123	131	63
Miscellaneous store retailers	453	1,773	1,929	1,594	1,690	74	1,000	988	1,137	1,158	70
Nonstore retailers	454	739	773	765	581	59	384	361	450	501	59
Air transportation	481	109	93	87	52	14	31	31	45	68	29
Water transportation	483	37	55	66	43	10	36	26	37	37	9
Truck transportation	484	2,573	2,601	2,129	1,993	50	1,246	1,203	1,464	1,609	50
Transit & ground passenger transportation	485	541	539	451	424	27	195	193	229	371	40
Pipeline transportation	486	5	3	10	11	3	2	1	1	3	44
Scenic & sightseeing transportation	487	68	72	52	61	23	43	39	33	46	21
Transportation support activities	488	644	730	648	522	47	310	302	338	467	49
Couriers & messengers	492	224	238	224	179	41	97	118	115	189	35
Warehousing & storage	493	169	201	156	124	8	71	66	84	101	20
Publishing industries	511	1,015	1,042	804	445	40	383	358	402	661	39
Motion picture & sound recording industries	512	466	516	415	347	44	320	283	309	392	24
Broadcasting & telecommunications	513	722	839	893	465	6	355	340	383	573	8
Information & data processing services	514	637	908	1,003	370	2	171	171	428	614	3
Monetary authorities - central bank	521	0	0	1	2	1	0	1	0	0	1
Credit intermediation & related activities	522	1,648	1,192	1,399	1,509	35	567	987	602	577	38
Security, commodity contracts & like activity	523	649	791	687	525	70	345	326	433	543	53

Table 6: Industry Distribution of Fast-Growing and Fast-Declining Single-Establishment Enterprises (5 employees): 1998-2002 - continued

		Fast-Growing,	t-Growing, with an Increase of 5 or More Employees Fast-Declining, with a Decrease of 5 or More Em								
		1998-1999	1999-2000	2000-2001	2001-2002	Rank	1998-1999	1999-2000	2000-2001	2001-2002	Rank
Insurance carriers & related activities	524	1,164	1,093	1,081	1,119	83	587	638	568	876	69
Funds, trusts, & other financial vehicles (part)	525	18	22	27	22	36	7	4	14	14	42
Real estate	531	2,546	2,617	2,284	2,380	82	1,376	1,417	1,482	1,614	65
Rental & leasing services	532	760	907	717	648	56	515	443	437	548	38
Lessors of other nonfinancial intangible asset	533	43	55	50	54	37	34	27	20	26	27
Professional, scientific & technical services	541	13,234	14,474	13,384	10,216	61	5,578	5,649	6,368	9,449	49
Management of companies & enterprises	551	113	141	145	87	46	56	68	76	84	30
Administrative & support services	561	10,842	11,593	9,401	9,253	15	5,509	5,205	5,987	7,310	10
Waste management & remediation services	562	504	545	454	476	22	275	223	256	294	21
Educational services	611	1,855	2,026	1,958	2,221	21	815	749	841	1,111	29
Ambulatory health care services	621	7,378	8,069	8,085	8,812	64	4,193	3,594	3,734	4,474	51
Hospitals	622	40	39	37	41	78	24	25	31	30	44
Nursing & residential care facilities	623	1,057	1,114	1,064	1,152	16	410	382	383	481	31
Social assistance	624	2,974	3,188	3,011	3,134	31	983	989	1,085	1,476	36
Performing arts, spectator sports, & related indus	stri (711	1,004	1,050	811	802	32	622	578	717	832	5
Museums, historical sites & like institutions	712	135	136	128	120	51	38	48	42	67	50
Amusement, gambling & recreation industries	713	2,119	2,415	1,841	2,251	11	1,152	1,051	1,314	1,258	7
Accommodation	721	1,442	1,538	1,314	1,376	38	811	837	920	1,010	13
Food services & drinking places	722	11,447	12,714	11,037	12,606	28	7,253	6,540	7,191	7,402	12
Repair & maintenance	811	2,919	3,071	2,769	2,802	81	1,574	1,457	1,606	2,055	49
Personal & laundry services	812	2,315	2,680	2,589	2,546	76	1,316	1,217	1,400	1,814	46
Religious, grantmaking, civic, prof & like organi	zat 813	5,483	5,905	5,313	6,501	68	2,887	2,790	3,090	3,330	40

Fast-growing enterprises are single-establishment enterprises with: positive employment as of March 12 in both the intitial and subsequent years, a percent employment increase of 50% or more, and a minimum net increase of either 5 or 20 employees.

Fast-declining enterprises are single-establishment enterprises with: positive employment as of March 12 in both the intitial and subsequent years, a percent employment decrease of 50% or more, and a minimum net decrease of either 5 or 20 employees.

Source: 1989-2003 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/epcd/susb/introusb.htm and www.census.gov/csd/susb/defterm.html.

Table 7: Industry Distribution of Fast-Growing and Fast-Declining Single-Establishment Enterprises (20 Employees): 1998-2002

		Fast-Growing	, with an Incre	ase of $\overline{20}$ or \overline{N}	Iore Employee:	s	Fast-Declining		ease of $\overline{20}$ or N	More Employe	es
		1998-1999	1999-2000	2000-2001	2001-2002	Rank	1998-1999	1999-2000	2000-2001	2001-2002	Rank
Total		25,495	28,554	24,869	21,104		12,859	12,277	14,433	18,979	
Forestry, fishing, hunting, and ag. support	11	110	110	84	67	13	65	67	83	99	10
Mining	21	83	141	150	88	9	130	74	69	112	6
Utilities	22	17	21	19	16	15	6	7	14	10	16
Construction	23	5,609	5,416	4,454	3,829	6	2,360	2,522	2,691	3,592	7
Manufacturing	31-33	2,370	2,533	2,022	1,433	8	1,495	1,232	1,552	2,519	4
Wholesale trade	42	1,261	1,439	1,282	952	14	714	613	709	983	12
Retail trade	44-45	1,400	1,685	1,507	1,380	18	743	743	915	995	17
Transportation & warehousing	48-49	712	756	650	517	10	381	350	444	566	11
Information	51	687	1,140	993	328	1	257	262	421	691	2
Finance & insurance	52	617	561	577	451	16	273	336	292	352	15
Real estate & rental & leasing	53	472	567	497	400	17	246	246	286	299	18
Professional, scientific & technical services	54	2,211	2,881	2,900	1,498	12	813	866	1,106	1,948	13
Management of companies & enterprises	55	40	41	56	21	3	20	20	23	33	3
Admin, support, waste mgt, remediation srv.	56	3,068	3,414	2,752	2,661	2	1,450	1,363	1,722	2,253	1
Educational services	61	362	438	414	464	5	171	176	202	297	9
Health care and social assistance	62	1,996	2,155	1,982	2,124	11	1,078	875	969	1,120	14
Arts, entertainment & recreation	71	760	810	665	705	4	416	402	464	490	5
Accommodation & food services	72	2,495	3,062	2,593	2,797	7	1,547	1,446	1,642	1,637	8
Other services (except public administration)	81	1,218	1,357	1,260	1,373	19	685	668	811	983	19
Auxiliaries (exc corporate, subsidiary & reg. mgt)	95	0	0	0	0	21	0	0	0	0	21
Unclassified establishments	99	7	27	12	0	20	9	9	18	0	20
Forestry and logging	113	31	34	23	22	70	16	19	32	30	62
Fishing, hunting & trapping	114	9	3	4	2	67	2	7	3	8	51
Agriculture & forestry support activities	115	70	73	57	43	38	47	41	48	61	24
Oil & gas extraction	211	12	22	16	7	69	11	6	13	5	70
Mining (except oil & gas)	212	35	39	34	35	25	36	38	35	53	8
Mining support activities	213	36	80	100	46	26	83	30	21	54	19
Utilities	221	17	21	19	16	62	6	7	14	10	
Building, developing & general contracting	233	1,267	1,297	965	931	45	580	652	677	915	46
Heavy construction	234	784	726	530	497	2	340	337	355	486	5
Special trade contractors	235	3,558	3,393	2,959	2,401	35	1,440	1,533	1,659	2,191	40
Food mfg	311	183	165	155	135	34	87	110	101	120	
Beverage & tobacco product mfg	312	28	25	25	19	7	11	8	11	24	17
Textile mills	313	38	34	30	25	20	37	25	33	41	6
Textile product mills	314	37	44	30	34	46	27	28	29	38	34
Apparel manufacturing	315	287	210	137	108	8	270	195	215	295	1
Leather & allied product mfg	316	11	14	10	3	42	12	10	21	23	2
Wood product mfg	321	133	142	89	95	33	73	63	99	121	20
Paper mfg	322	40	27	40	25	13	17	16	24	47	13
Printing & related support activities	323	119	136	103	73	65	72	78	77	106	58

Table 7: Industry Distribution of Fast-Growing and Fast-Declining Single-Establishment Enterprises (20 Employees): 1998-2002 - continued

		Fast-Growing,	with an Incre	ase of 20 or M	Iore Employee:	S	Fast-Declining	g, with a Decre	ease of 20 or N	More Employee	es
		1998-1999	1999-2000	2000-2001	2001-2002	Rank	1998-1999	1999-2000	2000-2001	2001-2002	Rank
Petroleum & coal products mfg	324	8	7	7	8	19	2	3	6	6	26
Chemical mfg	325	72	59	73	52	31	31	18	25	61	41
Plastics & rubber products mfg	326	176	177	87	93	12	72	72	101	154	12
Nonmetallic mineral product mfg	327	98	94	57	54	37	52	41	54	81	27
Primary metal mfg	331	37	64	44	23	10	26	23	35	67	3
Fabricated metal product mfg	332	315	411	295	220	48	226	149	225	464	37
Machinery mfg	333	138	158	131	97	50	119	86	125	222	28
Computer & electronic product mfg	334	170	260	334	84	3	114	75	96	250	7
Electrical equip, appliance & component mfg	335	53	59	60	17	22	33	31	22	64	16
Transportation equipment mfg	336	149	160	118	77	6	69	70	94	110	11
Furniture & related product mfg	337	127	139	82	80	47	61	58	80	100	44
Miscellaneous mfg	339	151	148	115	111	53	84	73	79	125	49
Wholesale trade, durable goods	421	735	875	830	500	60	383	358	413	566	59
Wholesale trade, nondurable goods	422	526	564	452	452	55	331	255	296	417	52
Motor vehicle & parts dealers	441	261	367	287	357	59	166	147	177	196	61
Furniture & home furnishing stores	442	73	80	74	65	77	32	37	47	51	75
Electronics & appliance stores	443	98	117	113	52	61	34	29	50	72	67
Bldg material & garden equip & supp dealers	444	110	138	125	110	74	64	60	68	89	74
Food & beverage stores	445	256	288	271	242	68	151	166	173	173	65
Health & personal care stores	446	66	80	76	64	75	34	31	44	41	76
Gasoline stations	447	127	131	135	112	72	68	78	86	95	72
Clothing & clothing accessories stores	448	75	88	96	95	79	38	31	45	52	82
Sporting goods, hobby, book & music stores	451	60	67	52	64	78	28	33	32	35	80
General merchandise stores	452	15	20	21	17	73	10	9	18	11	71
Miscellaneous store retailers	453	125	137	98	106	82	52	54	85	76	81
Nonstore retailers	454	134	172	159	96	54	66	68	90	104	55
Air transportation	481	21	21	24	13	18	4	10	15	17	21
Water transportation	483	9	14	17	6	16	9	10	10	12	10
Truck transportation	484	375	363	292	250	57	220	185	222	261	54
Transit & ground passenger transportation	485	107	128	109	100	30	47	52	62	98	36
Pipeline transportation	486	3	0	2	0	9	0	0	1	1	35
Scenic & sightseeing transportation	487	9	13	6	6	51	9	5	5	8	43
Transportation support activities	488	111	126	113	86	52	50	43	70	89	53
Couriers & messengers	492	39	51	50	33	40	24	32	34	58	25
Warehousing & storage	493	38	40	37	23	17	18	13	25	22	23
Publishing industries	511	243	348	253	85	23	82	79	115	197	38
Motion picture & sound recording industries	512	95	135	82	63	41	59	68	67	96	31
Broadcasting & telecommunications	513	185	278	302	96	4	82	76	101	175	14
Information & data processing services	514	164	379	356	84	1	34	39	138	223	4
Monetary authorities - central bank	521	0	0	0	0	83	0	0	0	0	83
Credit intermediation & related activities	522	313	215	251	243	43	121	170	107	105	50
Security, commodity contracts & like activity	523	104	162	146	86	58	66	67	93	108	57

Table 7: Industry Distribution of Fast-Growing and Fast-Declining Single-Establishment Enterprises (20 Employees): 1998-2002 - continued

		Fast-Growing, with an Increase of 20 or More Employees Fast						Fast-Declining, with a Decrease of 20 or More Employees					
		1998-1999	1999-2000	2000-2001	2001-2002	Rank	1998-1999	1999-2000	2000-2001	2001-2002	Rank		
Insurance carriers & related activities	524	192	182	173	117	80	84	99	88	136	79		
Funds, trusts, & other financial vehicles (part)	525	8	2	7	5	28	2	0	4	3	47		
Real estate	531	379	440	394	316	71	196	193	234	225	73		
Rental & leasing services	532	89	110	85	73	64	45	53	47	65	63		
Lessors of other nonfinancial intangible asset	533	4	17	18	11	29	5	0	5	9	48		
Professional, scientific & technical services	541	2,211	2,881	2,900	1,498	56	813	866	1,106	1,948	60		
Management of companies & enterprises	551	40	41	56	21	21	20	20	23	33	22		
Administrative & support services	561	2,942	3,286	2,672	2,545	11	1,379	1,313	1,666	2,174	18		
Waste management & remediation services	562	126	128	80	116	27	71	50	56	79	33		
Educational services	611	362	438	414	464	32	171	176	202	297	45		
Ambulatory health care services	621	1,100	1,245	1,071	1,075	63	740	527	583	652	66		
Hospitals	622	28	25	23	22	14	17	20	24	25	9		
Nursing & residential care facilities	623	372	379	361	421	5	141	133	127	172	29		
Social assistance	624	496	506	527	606	44	180	195	235	271	56		
Performing arts, spectator sports, & related indus	stri (711	273	305	236	228	15	171	167	216	214	15		
Museums, historical sites & like institutions	712	32	21	25	24	49	4	9	7	10	69		
Amusement, gambling & recreation industries	713	455	484	404	453	24	241	226	241	266	32		
Accommodation	721	283	334	267	288	39	174	188	211	204	39		
Food services & drinking places	722	2,212	2,728	2,326	2,509	36	1,373	1,258	1,431	1,433	42		
Repair & maintenance	811	290	302	298	243	81	169	140	172	241	78		
Personal & laundry services	812	204	270	282	237	76	108	111	142	165	77		
Religious, grantmaking, civic, prof & like organi	zat 813	724	785	680	893	66	408	417	497	577	64		

Fast-growing enterprises are single-establishment enterprises with: positive employment as of March 12 in both the intitial and subsequent years, a percent employment increase of 50% or more, and a minimum net increase of either 5 or 20 employees.

Fast-declining enterprises are single-establishment enterprises with: positive employment as of March 12 in both the intitial and subsequent years, a percent employment decrease of 50% or more, and a minimum net decrease of either 5 or 20 employees.

Source: 1989-2003 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/epcd/susb/introusb.htm and www.census.gov/csd/susb/defterm.html.