

Startup Business Characteristics and Dynamics: A Data Analysis of the Kauffman Firm Survey

A Working Paper
by

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for



Release Date: August 2009

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

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Executive Summary

The purpose of this report is to contribute to a better understanding of American business startups and their dynamics. The American economy relies upon vigorous and pervasive business startups to inject new energy, acquire new knowledge and technologies, create new jobs, and provide new goods and services for its extended growth. Sustainable economic growth is key to our nation's long-term prosperity. The report includes sample data analysis based on the Kauffman Firm Survey (KFS), a panel study created using a stratified random sample of all startups in 2004 from the Dun & Bradstreet database with follow-up surveys on these firms for 2005 and 2006. The results of this report are not meant to be extrapolated to the national startup population.

The Economic Importance of Business Startups

- Startup businesses in the KFS sample created an average of 5.5 jobs per firm in 2004; this includes not only 4.1 paid employee positions, but also 1.4 entrepreneurial positions.
- Firms in the KFS sample generated an estimated value of more than \$575 million in revenue in 2004 when starting their businesses. By 2006, the total estimated revenue of KFS sample firms had increased to \$879 million, or 53 percent; the payroll per KFS employee grew 56 percent between 2004 and 2006.

Characteristics of KFS Businesses

- Over 92 percent of all KFS sample startups were new, independent businesses; about 7 percent were purchased from existing businesses or franchises. Franchises had higher average levels of assets, profits, revenues and wages than new, independently created firms. They also had more employees, more operational owners, and lower rates of going out of business than independent businesses.
- Half of KFS sample firms were home based between 2004 and 2006. Around 40 percent operated their business at rented or leased places, and 5-7 percent of them operated at their own purchased spaces.

- Four industries accounted for the largest share of home-based KFS sample startups in 2004: professional services (31 percent), manufacturing (13 percent), construction (10 percent), and administrative services (10 percent). For non-home-based startups, the top four industries were: manufacturing (23 percent), professional services (17 percent), retail trade (14 percent), and administrative service (6 percent).
- The overall survival rate of KFS sample firms between 2004 and 2005 was 94 percent, ranging from a high of 97 percent for real estate, rental and leasing (NAICS 53) to a low of 89 percent for accommodation and food services (NAICS 72). The overall survival rate in 2006 was one percentage point lower than in 2005. The highest was 94 percent for forestry, fishing and hunting, and agricultural support services (NAICS 11), and the lowest was 87 percent for education services (NAICS 61).
- About 59 percent of KFS sample startups in 2004 reported zero employees; the rest were employer firms.
- Firms with 10 or fewer employees made up 91 percent of all employer firms, and provided 61 percent of total employment in the KFS sample in 2004. These two percentages dropped to 88 and 52, respectively, in 2006.
- About 80 percent of total home-based business jobs were created by firms with 10 or fewer workers. About 21 percent in 2004 and 25 percent in 2006 of non-home-based business jobs were provided by firms with 25 or more employees in the KFS sample.
- Overall, employer firms had a stronger financial profile than nonemployer firms. Moreover, the share of employer firms in the total KFS sample increased from 41 percent in 2004 to 62 percent in 2006.
- Most of the jobs in the KFS sample were generated by LLCs (33 percent), S corporations (33 percent), and C corporations (17 percent) in 2004. Less than 9 percent of total KFS sample firms were C corporations.
- By 2006, 34 percent of existing businesses in the KFS sample had changed their legal form. On average, firms that changed their legal status had higher revenues than others.
- By 2006, the share of single owners had increased in all firms except those organized as C corporations, compared with 2004. More than 75 percent of general partnerships had two owners.

Dynamics of KFS Businesses

- In 2005, 41 percent of all firms in the KFS sample added workers; 31.1 percent in 2006. Businesses with multiple owners had a higher rate of growth than those with single owners.
- C corporations, S corporations and limited partnerships had higher rates of growth than other kinds of businesses in the KFS sample. Sole proprietors had lower rates of growth. In 2005, 42.4 percent of limited partnerships increased employment. This percentage rose to 50 percent in 2006.
- About half of non-home-based businesses in the KFS sample increased employment in 2005, and about 40 percent did so in 2006; 33 percent of home-based businesses added employees in 2005, and 25 percent in 2006.
- About 45 percent of employer firms in the KFS sample and 44 percent of nonemployer firms reported revenue growth in 2005; these two numbers were 23 percent and 28 percent, respectively, in 2006.
- About 60 percent of all employer firms in the KFS sample with expanding revenues had more than \$100,000 revenue in both 2005 and 2006; about half of the nonemployer firms with expanding revenues were in the \$10,001-to-\$100,000 revenue category.
- Six percent of the KFS sample firms went out of business either temporarily or permanently in 2005, and an additional 7 percent in 2006. In 2005, 13 percent of these were sold or merged with other companies, and 16 percent in 2006.
- One in three of the KFS startups operated as a sole proprietor in 2004; among all KFS sample firms that went out of business in 2005 and 2006, two in five were sole proprietors. Among the firms surviving in 2006, 33 percent were LLCs, 30 percent were sole proprietors, and 24 percent were S corporations.
- Two-thirds of closed firms had no paid employees in 2005; in 2006, this figure was 51.5 percent. Among all firms in the KFS sample with expanding employment, nearly 30 percent were in the manufacturing industry and 21 percent in real estate, rental or leasing industries.

I. Introduction

The American economy relies upon vigorous and pervasive business startups to inject new energies, acquire new knowledge, create new technologies, and provide new goods and services for its extended growth. Sustainable economic growth is the key to our nation's long-term prosperity. Due to the difficulties of data collection and their complexity, information on business startups is still relatively unknown to academics, policymakers and business communities. Fortunately, under the leadership of Ewing Marion Kauffman Foundation, the new Kauffman Firm Survey (KFS) provides comprehensive information about American business startups, especially those in high-technology and high-growth geographic regions.¹ The goal of this report is to look into general static and dynamic characteristics of the KFS sample of startups between 2004 and 2006 by providing tabulations from many different angles for a wide range of audiences.²

The main objective of KFS data collection is to address the informational gaps related to the study of entrepreneurship. While focusing on several particular issues relating to business startups, the KFS was designed “to meet the information needs of as many potential data users as possible.”³ Because of the nature of KFS samples (as will be discussed later), this report does not intend to extrapolate the result from a large group of high-technology and high-growth startups to the national startup population. However, findings from this report are believed to provide the greatest insights into high-technology oriented startups and high-growth young firms.

The KFS provides tracking information on business startups. Its panel of businesses was created by using a random sample from the list of U.S. new businesses started in 2004 in the Dun & Bradstreet (D&B) database. The list included approximately 250,000 startups. The KFS created

¹ Certain data included herein are derived from the Kauffman Firm Survey release 1.0 (Ewing Marion Kauffman Foundation, Kansas City, MO; <http://sites.kauffman.org/kfs/index.cfm>). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the Ewing Marion Kauffman Foundation.

² The author would like to express appreciation to the Ewing Marion Kauffman Foundation, and to Alicia Robb, Brian Headd, Rebecca Krafft, Jules Lichtenstein, Shawne McGibbon, Chad Moutray, Ernst Nilsson, Bruce Phillips, and Jim VanWert.

³ The particular goal of the KFS was to learn more about the development of high-technology and women-owned businesses, new businesses' financial experiences, and the business and owner characteristics that are associated with business success. See “The Kauffman Firm Survey—Results from the Baseline and First Follow-Up Surveys,” March, 2008, <http://ssrn.com/abstract=1098173>.

the panel that included three kinds of startup businesses: those that were 1) founded by a single person or a team of people; 2) purchased from existing businesses by a new ownership team; and 3) purchased franchise by a new owner or a team. The KFS panel excluded businesses that were wholly owned subsidiaries of existing businesses, businesses inherited from someone else, and not-for-profit organizations.⁴

The KFS used a simple stratified sampling design. It oversampled substantially the businesses in the high technology stratum. It also oversampled the medium technology businesses relative to the non-technology ones. Therefore, the sampling weights take this oversampling into account to remove the potential bias in the estimates of KFS population relative to unweighted estimates. Also, the response rate differed by such factors as legal status, ownership, and age and education of the owner. The nonresponse adjustments were designed to minimize potential nonresponse bias in the estimates. Most tables in the report used respondent firm data (or sample count). Weighted information is also provided from time to time to remind readers about the existence of certain distortions due to over- or under-sampling. Readers should not interpret figures or tables in this report as estimates of the national business startup population. The final chosen universe of the KFS data includes 4,928 businesses started in 2004. The database includes 2,166 variables for each case.

The remainder of the report is organized as follows. Section II stresses the economic importance of business startups by demonstrating the number of ventures that were created by KFS entrepreneurs, number of jobs provided by KFS employer and the revenue and assets that were generated by all KFS sample firms. Section III illustrates characteristics of KFS sample firms such as methods of starting business, primary business locations, number of business owners, industrial distribution (by NAICS Code), and legal form of KFS sample firms. Section IV looks into the dynamic nature of KFS sample firms: some of them grew, some of them went out of operation, but most of them stayed in business. And finally, Section V concludes the report.

⁴ For detailed KFS information, see Appendix 1.

II. The Economic Importance of Business Startups

Business startups invigorate the economy by creating new ventures, providing jobs, and generating wealth. Table 1 shows the impact of the KFS sample base of 4,928 new ventures. Of these, 1,985, or 40 percent, were employer firms, and they provided more than 8,117 jobs. Of all KFS employer firms, 88 percent were new and independent startups, and they were responsible for 77 percent of total KFS sample employment in 2004. The average number of employees per employer startup in the sample was 4.1. This number is lower than the one generated by the U.S. Bureau of the Census's Business Dynamic Statistics, an estimated 6.0 jobs created at the birth of an establishment in 2004.⁵ Startups in the KFS sample that had been acquired or were franchises⁶ provided an average of 7.9 jobs per firm; new independent startups created 3.6 jobs per firm.

Table 1: Estimated Total Employment Created by KFS Sample Firms, 2004

Number of Employees in a Firm	Total Startups		New and Independent Startups ¹			Acquired Startups ²		
	Firm Sample Count	Total Employees	Firm Sample Count	Firm Sample Percent	Total Employees	Firm Sample Count	Firm Sample Percent	Total Employees
N.A.	105	N.A.	100	2.2	N.A.	--	--	--
Zero	2838	0	2724	59.6	0	114	32.3	0
One	690	690	660	14.4	660	30	8.5	30
2 to 10	1121	4267	972	21.3	3610	149	42.2	657
11 to 24	119	1785	87	1.9	1285	32	9.1	500
25 or More	55	1375+	27	0.6	675+	28	7.9	700+
Total	4928	8117+	4570	100.0	6230+	353	100.0	1887+
Number of Employer Firms (Percent)	1985 (100%)		1746 (88%)			239 (12%)		
Employees per Employer Firm ³		4.1			3.6			7.9
N.A.: Missing data. 1. Eighty-eight percent of all employer startups in the KFS sample were new, independent businesses created by a single person or a team of people. 2. The other 12 percent of all startups in the KFS sample were either acquired businesses or franchises, or businesses started some other way. 3. The total estimated employees divided by total employer firms (excluding firms that did not report employee information).								

⁵ Source: Longitudinal Business Database 1977-2005, http://www.ces.census.gov/index.php/bds/bds_database_list.

⁶ These include purchased existing businesses, purchased franchises, or businesses started some other way.

When focusing on job creation, one important role of business startups is often overlooked: the employment of the entrepreneurs themselves. Startups not only provide paid jobs to members of the labor force; they also put entrepreneurs (or business operators) to work. In the KFS sample, 4,928 new startups utilized the efforts of 6,871 entrepreneurs. Using weighted data, this can be shown to represent 73,279 startups and 101,200 owners in 2004 (Table 2).⁷

Table 2: Estimated Total Business Owners of the KFS Sample Firms, 2004

Number of Firm Owners	Sample Count ¹	Share of Sample (Percent)	Total Owners in KFS Sample ²	Weighted Count ³	Share of Weighted Sample (Percent)	KFS Estimated Total Number of Owners ⁴
One Owner	3,445	69.9	3,445	51,448	70.2	51,448
Two Owners	1,168	23.7	2,336	17,672	24.1	35,343
Three or More	315	6.4	1,090	4,159	5.7	14,409
Total	4,928	100.0	6,871	73,279	100.0	101,200
Average Number of Owners per Firm ⁵	--	--	1.39	--	--	1.38

Notes: KFS over-sampled startups with three or more owners and under-sampled firms with one or two owners.

1. Total count of firms in KFS.
2. Number of owners that helped operate a startup business in 2004. All business owners here were operational owners; pure equity owners were excluded.
3. The estimated startup business count represented by KFS sample using the weights created by the KFS.
4. The estimated number of business owners represented by KFS sample using the weights created by the KFS.
5. The average number of owners per business estimated by the sample count and estimated count.

Table 2 implies that an average of approximately 1.4 entrepreneurs was needed to start a single business. In other words, one can estimate that a total number of entrepreneurs equal to 1.4 times the total number of startups participated in economic activities.⁸ This number is slightly higher than the 2002 national startup level of 1.23 estimated by using the U.S. Bureau of Census's Survey of Business Owners (SBO) respondent data.⁹ Considering that at least half a million firms start every year in the United States, this is a massive injection of productive human capital into the economy; these entrepreneurs' vibrant economic activity encompasses inventing or

⁷ About 70 percent of total startups had one business owner, 24 percent had two owners, and 6 percent had more than 2 owners.

⁸ The KFS weighted average was 1.38, while the unweighted sample average was 1.39, a difference of about 0.01.

⁹ KFS is the only survey on startups with information on up to 10 business owners. The U.S. Census' Survey of Business Owners (SBO) only surveyed business owners up to four. One can find SBO respondent data at <http://www.census.gov/econ/sbo/index.html>.

innovating new technologies, creating new products, providing new services, expanding new markets, seeking financial resources, hiring new employees, meeting demand, and balancing budgets.

Using the mid-point calculating method, Table 3 estimates the value of business revenue generated by the KFS sample firms. The number (and proportion) of firms that did not generate any revenue decreased from 1,704 (35.9 percent) in 2004, to 960 (24.5 percent) in 2005 and 804 (23.9 percent) in 2006. At the same time, the total value of revenue increased from \$575 million in 2004 to \$852 million in 2005 and \$879 million in 2006. The average revenue per firm grew annually: \$121,358 in 2004, \$217,559 in 2005 and \$261,499 in 2006.

Table 3: Estimated Total Value of Revenue Produced by Firms in the KFS Sample, 2004-2006

Value	2004			2005			2006		
	Firm Count	Percent	Estimated Value ¹	Firm Count	Percent	Estimated Value ¹	Firm Count	Percent	Estimated Value ¹
\$0	1704	35.9	\$0	960	24.5	\$0	804	23.9	\$0
\$500 or less	131	2.8	\$32,750	68	1.7	\$17,000	42	1.3	\$10,500
\$501 to \$1,000	89	1.9	\$66,750	50	1.3	\$37,500	36	1.1	\$27,000
\$1,001 to \$3,000	221	4.7	\$442,000	120	3.1	\$240,000	93	2.8	\$186,000
\$3,001 to \$5,000	146	3.1	\$584,000	110	2.8	\$440,000	76	2.3	\$304,000
\$5,001 to \$10,000	291	6.1	\$2,182,500	205	5.2	\$1,537,500	128	3.8	\$960,000
\$10,001 to \$25,000	443	9.3	\$7,752,500	347	8.9	\$6,072,500	262	7.8	\$4,585,000
\$25,001 to \$100,000	868	18.3	\$54,250,000	776	19.8	\$48,500,000	616	18.3	\$38,500,000
\$100,001 to \$1 million	751	15.8	\$413,050,000	1081	27.6	\$594,550,000	1047	31.1	\$575,850,000
\$1,000,001 or more	97	2.1	\$97,000,000	201	5.1	\$201,000,000	259	7.7	\$259,000,000
Total	4741	100.0	\$575,360,500	3918	100.0	\$852,394,500	3363	100.0	\$879,422,500
Average Revenue per Firm			\$121,358			\$217,559			\$261,499
<p>1. All dollar values are in nominal terms. 2. The value of revenue was estimated using the mid-point value from the survey category value. For example, the mid-point value of revenue category "\$25,001 to \$100,000" is \$62,500.</p>									

The growth of payroll provided by KFS sample firms was impressive: 88 percent between 2004 and 2005 and more than 10 percent between 2005 and 2006 (Table 4). The average payroll per employer firms increased each year: \$113,471 in 2004, \$174,453 in 2005 and \$211,834 in 2006. The average payroll per employee was also on the rise: \$26,267 in 2004, \$36,372 in 2005 and \$40,985 in 2006.

Table 4: Estimated Value of Payroll Provided by Employer Firms in the KFS Sample, 2004-2006

Value	2004			2005			2006		
	Firm Count	Percent	Estimated Value ¹	Firm Count	Percent	Estimated Value ¹	Firm Count	Percent	Estimated Value ¹
\$0	442	23.5	\$0	465	20.3	\$0	398	19.1	\$0
\$500 or less	58	3.1	\$14,500	50	2.2	\$12,500	31	1.5	\$7,750
\$501 to \$1,000	31	1.7	\$23,250	31	1.4	\$23,250	18	0.9	\$13,500
\$1,001 to \$3,000	89	4.7	\$178,000	70	3.1	\$140,000	46	2.2	\$92,000
\$3,001 to \$5,000	68	3.6	\$272,000	69	3.0	\$276,000	47	2.3	\$188,000
\$5,001 to \$10,000	149	7.9	\$1,117,500	114	5.0	\$855,000	102	4.9	\$765,000
\$10,001 to \$25,000	224	11.9	\$3,920,000	253	11.0	\$4,427,500	202	9.7	\$3,535,000
\$25,001 to \$100,000	519	27.6	\$32,437,500	643	28.0	\$40,187,500	567	27.2	\$35,437,500
\$100,001 to \$1 million	275	14.6	\$151,250,000	542	23.6	\$298,100,000	600	28.8	\$330,000,000
\$1,000,001 or more	24	1.3	\$24,000,000	56	2.4	\$56,000,000	71	3.4	\$71,000,000
Total	1879	100.0	\$213,212,750	2293	100.0	\$400,021,750	2082	100.0	\$441,038,750
Average Payroll per Employer Firm			\$113,471			\$174,453			\$211,834
Average Payroll per Employee ²			\$26,267			\$36,372			\$40,985

Notes: All dollar values are in nominal term.
1. The value of revenue was estimated using mid-point value from survey category value. For example, the mid-point value of payroll category “\$25,001 to \$100,000” is \$62,500.
2. The total employment of the KFS sample firms was 8,117 in 2004, 10,998 in 2005 and 10,761 in 2006.

III. Characteristics of KFS Businesses

Methods of Starting a Business

How was a business started? KFS asked questions about whether the business started as “a new business, branch or subsidiary owned by an existing business;” or “a business inherited from someone else;” or “an organization designed for social and charitable objectives and legally established as a ‘not-for-profit.’” Respondents whose enterprises fell into any of these three categories were excluded. Ultimately the KFS database encompassed 4,928 responses, representing the four kinds of startups listed in Table 5. Over 92 percent of KFS startups were new, independent business created by a single person or a team of people; about 7 percent were purchased from existing businesses or franchises.

Table 5: Methods of Starting a Business in the KFS Sample, 2004

Methods of Business Startups	Sample Count	Sample Percent	Weighted Count*	Weighted Percent*
New, independent business created by a single person or a team of people	4,570	92.7	67,511	92.1
Purchase of an existing business	240	4.9	3,713	5.1
Purchase of a franchise	109	2.2	1,917	2.6
Business started some other way	9	0.2	137	0.2
Total	4,928	100.0	73,278	100.0
* For detailed information of weighted count and weighted percent, see Alicia Robb and David DesRoches, "Kauffman Firm Survey: Baseline/First/Second Follow-Up," May 6, 2008. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1024312&rec=1&srcabs=1284474 .				

Table 6 gives business profiles of new and acquired KFS startups in 2004 and 2006. The detailed statistics can be found in Appendix 5. Numbers presented here are an average of variables highlighting the business profile of newly established startups or those purchased from existing businesses or franchises. The profile includes the average level of assets, number of employees, number of operational owners, profits, revenue, wages paid to employees, and rate of business closure.¹⁰

The average total assets for new, independent businesses created by a single person or a team of people was slightly above asset category 5 (\$5,001 to \$10,000) in 2004, but it increased to near category 6 (\$10,001 to \$25,000) in 2006. The average number of employees of startup employers was 3.568 in 2004. It increased to 4.743 in 2006. The average operational owners increased to 1.448 in 2006 from 1.383 in 2004. The 2005 rate of business exit was 6.2 percent, compared with 6.6 percent in 2006. Despite the exit rate being higher in 2006 than in 2005, the business profile as measured by average total assets, total employees, total profits, total revenues, and total wages had all improved. Notably, more firms hired employees (1,746 in 2004 increased to 1,954 in 2006), and more firms provided payroll (1,649 in 2004 but 1,874 in 2006).

¹⁰ Business owners mentioned in this report include all owner-operators but exclude sole equity investors.

Table 6: Profile of New and Acquired Startups in the KFS Sample, 2004 and 2006

	Level of Assets	Number of Employees ¹	Number of Operational Owners ²	Level of Profit	Level of Revenue	Level of Wages ¹	Rate of Business Closure
2004 Profile of New, Independent Firms Created in 2004							
Average	5.129	3.568	1.383	4.086	3.819	4.500	6.2% ³
Observations	4561	1746	4570	1949	4396	1649	4570
2006 Profile of New, Independent Firms Created in 2004							
Average	5.978	4.743	1.448	5.234	5.272	5.456	6.6%
Observations	3151	1954	3155	2042	3130	1874	4570
2004 Profile of Firms Newly Acquired or Franchised in 2004 ⁴							
Average	6.686	7.895	1.534	4.856	5.325	6.049	5.0% ³
Observations	354	239	358	132	345	226	358
2006 Profile of Firms Newly Acquired or Franchised in 2004 ⁴							
Average	6.966	7.817	1.566	5.862	6.124	6.813	4.7%
Observations	234	191	235	145	233	182	358
<p>Notes: All numbers here are expressed as averages. "Levels" were the average of dollar value categories measuring KFS sample firms' assets, profit, revenue and total wages (see Appendix 3 for details).</p> <p>1. Observations were selected from employer firms only.</p> <p>2. Average number of business owners involved in operation (solely equity contributors were excluded).</p> <p>3. Rate of firms that were out of business in 2005.</p> <p>4. Firms examined here are businesses acquired by single persons or teams of people; they were either purchased as existing businesses or franchises or started some other way.</p>							

Acquired firms had a stronger business profile than newly created businesses in all categories on average. They had higher levels of total assets, profit, revenue, and wages; more employees and operational owners; and a lower rate of firm exit (5.0 percent in 2005 and 4.7 percent in 2006).

Primary Business Location

The 2002 Survey of Business Owners (SBO) reported that approximately half of the 16.7 million SBO respondent firms were home based. Four industries accounted for the largest share of home-based businesses: professional, scientific, and technical services (19 percent); construction (16 percent); retail trade (11 percent); and other services, such as personal services and repair and maintenance (10 percent). Fifty-eight percent of businesses with no paid employees were home based compared to 22 percent of firms with paid employees. The SBO

also shows that 64.7 percent of businesses with receipts of less than \$5,000 were home based compared to only 5.8 percent of firms with receipts of \$1 million or more.

Table 7: Primary Business Location of Firms in the KFS Sample, 2004-2006

Business Location	2004			2005			2006		
	Sample Count	Sample Percent	Weighted Percent	Sample Count	Sample Percent	Weighted Percent	Sample Count	Sample Percent	Weighted Percent
Residence: Home or Garage	2,483	50.4	49.2	1,977	49.6	48.0	1,695	49.2	47.6
Rented or Leased Space	1,933	39.3	40.5	1,568	39.3	41.1	1,355	39.3	40.7
Purchased Space	241	4.9	5.2	227	5.7	5.8	218	6.3	6.6
Client Location	206	4.2	3.8	169	4.2	3.8	140	4.1	3.9
Other	59	1.2	1.3	46	1.2	1.2	37	1.1	1.2
Total	4,922	100.0	100.00	3,987	100.0	100.0	3,445	100.0	100.0

Notes: For detailed information on “weighted percent,” see Robb, Alicia and David DesRoches, “Kauffman Firm Survey: Baseline/First/Second Follow-Up,” May 6, 2008, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1024312&rec=1&srcabs=1284474.

Table 7 shows a similar pattern for home-based business in the KFS data. Notice that KFS oversampled home-based firms and undersampled firms that either rented or purchased their primary business locations. About half of KFS sample firms started from home in 2004 and operated at home in 2005 and 2006. Around 40 percent of KFS sample firms rented or leased places, and 5 percent to 7 percent of them operated at their own purchased spaces.

Table 8 compares 2004 and 2006 home-based and non-home-based businesses in the KFS sample. Four industries accounted for the largest share of home-based KFS startups in 2004: professional, scientific, and technical services (31 percent); manufacturing (13 percent); construction (10 percent); and administrative, support, waste management and remediation services (10 percent). The industry distribution of non-home-based startups was different: manufacturing (23 percent) and professional, scientific, and technical services (17 percent) took large shares; retail was 14 percent. After two years, the home-based businesses remained in much the same industries as in 2004; non-home-based businesses had large shares in professional services (19 percent), manufacturing (19 percent), a stable 14 percent share in retail, and 10 percent went to other services.

Table 8: Industry Concentration of Home-Based and Non-Home-Based Firms in the KFS Sample, Unweighted Data, 2004 and 2006

Item	2004		2006	
	Home-Based	Non-Home Based	Home-Based	Non-Home Based
Top Four Industries	Professional Services (31%)	Manufacturing (23%)	Professional Services (33%)	Professional Services (19%)
	Manufacturing (13%)	Professional Services (17%)	Construction (11%)	Manufacturing (19%)
	Construction (10%)	Retail Trade (14%)	Manufacturing (9%)	Retail Trade (14%)
	Administrative Services (10%)	Administrative Services (6%)	Administrative Services (9%)	Other Services (10%)
<i>Percent of Total:</i>				
Employers	29%	54%	49%	76%
Nonemployers	71%	46%	51%	24%
<i>Revenues:</i>				
Less than \$5,000	63.6%	45.1%	45.3%	25.1%
More than \$1 million	0.3%	3.9%	1.3%	13.9%
NAICS codes: 23-Construction; 31-33-Manufacturing; 44-45-Retail Trade; 54-Professional Services; 56-Administrative Services; and 81-Other Services.				

During the startup year of 2004, home-based nonemployers accounted for 71 percent of the total, while non-home-based nonemployers made up 46 percent. After two years, home-based employers increased 20 percent, and non-home-based employers increased to 76 percent of the total. Almost 64 percent of home-based and 45 percent of non-home-based startups had revenue less than \$5,000 in 2004. Almost 14 percent of non-home-based businesses made more than \$1 million in revenue, while only 1.33 percent of home-based businesses were at this level.

Is there any correlation between firm stability and primary business location? Table 9 attempts to capture the dynamics of business location activities. There were 3,183 firms in the sample that remained in the same location since the inception of their business: 1,641 at their residence, 1,219 in leased space, 158 in purchased space, 132 at client sites, and 33 in other locations. In 2006, 110 firms that had been operating at home in 2004 had moved to leased space. Fourteen home-based businesses and 44 firms in leased space in 2004 had purchased their own spaces in 2006. Comparing these two years, there were fewer home-based firms and more firms in rented or purchased space in 2006 than in 2004.

Table 9: Cross-tabulation of 2004 and 2006 Primary Location of Business of Startups in the KFS Sample

Count		2006 Primary Location					2004 Total Count (Percent) ¹
		Home or Garage	Rented or Leased Space	Firm Purchased Space	Client Site	Other	
2004 Primary Location	Home or Garage	1641	110	14	6	2	1773 (93%)
	Rented or Leased Space	45	1219	44	1	1	1310 (93%)
	Firm Purchased Space	2	10	158	1	0	171 (92%)
	Client Site	5	11	0	132	1	149 (89%)
	Other	2	4	1	0	33	40 (83%)
	2006 Total Count	1695	1354	217	140	37	3443

Notes: Included observations in this analysis were 3,443 (out of 4,928 total observations) after adjustments. The p-value of Pearson χ^2 for this test is 0.0000.
1. Percent of 2006 firms remaining in the same location as they were in 2004.

Why did firms move? In the first follow-up survey, 184 firms answered this question (Table 10). Over 50 percent needed more space because of business growth; 9 percent stated that the previous location was too expensive. In the second KFS follow-up survey, 38.9 percent changed location due to growth, and 18.1 percent moved because the previous location was too expensive (Table 10).

Does legal form have an impact on business location? Table 11 demonstrates a clear pattern in the unweighted sample data in 2006: nearly 66 percent of sole proprietors and 50 percent LLCs operated at home; while about 71 percent of C corporations, 59 percent of S corporations, 56.3 percent of general partnerships and 51 percent of limited partnerships rented or purchased business space. More than one-third of sole proprietors were not home based in 2006.

Table 10: Reasons for Changing Business Location, 2005 and 2006

Reason for Changing Primary Business Location:	2005			2006		
	Sample Count	Sample Percent	Weighted Percent	Sample Count	Sample Percent	Weighted Percent
Previous Location too Expensive	17	9.24	9.9	22	17.46	18.1
Needed more Space due to Growth	102	55.43	50.6	52	41.27	38.9
Moved Closer to Customers	10	5.43	5.9	14	11.11	12.2
Moved Business and Residence to New Location	8	4.35	4.7	7	5.56	4.9
Other	47	25.54	28.9	31	24.60	25.9
Total	184	100.00	100.0	126	100.00	100.0

Table 11: Legal Form and Primary Business Location, 2006
(Percentage in Parentheses)

Legal Form of Business	Home-Based	Rented or Leased	Purchased	Client Site	Other	Total
Sole Proprietorship	691 (65.9)	232 (22.1)	56 (5.3)	57 (5.4)	13 (1.2)	1049 (100.0)
Limited Liability Company	570 (49.4)	448 (38.9)	81 (7.0)	40 (3.5)	14 (1.2)	1153 (100.0)
S Corporation	301 (37.3)	421 (52.2)	52 (6.5)	27 (3.3)	5 (0.6)	806 (100.0)
C Corporation	77 (26.8)	187 (65.2)	16 (5.6)	7 (2.4)	0 (0.0)	287 (100.0)
General Partnership	35 (36.5)	43 (44.8)	11 (11.5)	4 (4.2)	3 (3.1)	96 (100.0)
Limited Partnership	18 (36.7)	23 (46.9)	2 (4.1)	4 (8.2)	2 (4.1)	49 (100.0)
Some Other Form	3 (60.0)	1 (20.0)	0 (0.0)	1 (20.0)	0 (0.0)	5 (100.0)
Total	1695 (49.2)	1355 (39.3)	218 (6.3)	140 (4.1)	37 (1.1)	3445 (100.0)

Does the financial strength of the firm have an impact on primary business location? Table 12 suggests that startups with a stronger financial position purchased their business space. Over 60 percent of firms that purchased their primary locations had over \$100,000 in total assets in 2004. At the same time, only less than 30 percent of other groups were in this asset category. About 10 percent of non-home-based firms with rental locations and 10 percent with purchased locations had no assets during the startup years. By 2006, these two shares had dropped to 4.9 percent and 2.9 percent, respectively.

Table 12: Cross-tabulation of Assets and Primary Business Location,
2004 and 2006
(Percent)

Category of Assets	Home-Based	Rented or Leased	Purchased	Client Site	Other	Total
2004						
No assets	14.0	9.7	10.0	13.1	20.3	12.2
\$10,000 or less	40.2	16.6	6.3	31.1	28.8	28.8
\$10,001 to \$100,000	35.4	44.1	23.3	41.3	25.4	38.3
\$100,001 or more	10.4	29.6	60.4	14.6	25.4	20.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
2006						
No assets	9.0	4.9	2.9	8.0	11.4	7.0
\$10,000 or less	31.6	10.1	3.8	27.5	22.9	21.2
\$10,001 to \$100,000	42.3	37.8	16.2	41.3	34.3	38.8
\$100,001 or more	17.2	47.2	77.1	23.2	31.4	33.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 13: Cross-tabulation of Revenue and Primary Business Location,
2006
(Percentage in Parentheses)

Category of Revenue	Home-Based	Rented or Leased	Purchased	Client Site	Other	Total
No Revenue	449 (27.0)	267 (20.2)	45 (21.6)	30 (21.7)	12 (36.4)	803 (23.9)
Some Revenue (\$10,000 or less)	303 (18.3)	45 (3.4)	5 (2.5)	18 (13.2)	4 (12.1)	375 (11.2)
\$10,001 to \$100,000	553 (33.3)	230 (17.4)	34 (16.3)	51 (36.9)	9 (27.3)	877 (26.1)
\$100,001 or more	355 (21.4)	779 (59.0)	124 (59.6)	39 (28.2)	8 (24.2)	1305 (38.8)
Total	1660 (100.0)	1321 (100.0)	208 (100.0)	138 (100.0)	33 (100.0)	3360 (100.0)

In 2006, about 21.4 percent of home-based businesses and about 60 percent of firms that operated in purchased or rented space generated more than \$100,000 in revenue (Table 13). Among all 3,360 firms, 1305 (or 39 percent) had revenue over \$100,000: most of these firms (779) were in rental space; 355 were home based. More than 20 percent of all firms with a different primary location had no revenue in 2006.

Two-Digit North American Industry Classification System (NAICS)

This section analyzes the industry distribution of KFS sample firms. The KFS over-sampled the manufacturing sector and high technology sector, which is apparent in Table 14. The 2004 KFS sample percentage of manufacturing was 17.9, but the weighted percentage was 6.4; the percentage of professional, scientific and technical services and management was 24.5 percent, but the weighted percentage was estimated as 16.8 percent.¹¹ While the KFS over-sampled sectors of manufacturing (NAICS 31-33); professional, scientific and technical services (NAICS 54), it under-sampled construction (NAICS 23), retail trade (NAICS 44-45), and others. Table 14 indicates that the most prevalent industry in the KFS was professional, scientific, and technical services (1,199 firms or more than 24 percent of the sample) in 2004. By the end of 2005, there were 1,190 firms in this sector: 1,105 survived and 85 were out of business.¹²

What kind of industries in the unweighted sample had higher survival rates? Table 15 shows that the overall survival rate of 2005 KFS sample firms was 93.9 percent (unweighted data), from a high of 97.1 percent in real estate, rental and leasing (NAICS 53) to a low of 89.0 percent in accommodation and food services (NAICS 72). The overall 2006 survival rate was one percentage point lower than in 2005. The highest was 94.4 percent in forestry, fishing and hunting, and agricultural support services (NAICS 11); and the lowest was 87.1 percent in education services (NAICS 61).

¹¹ The figure 24.5 was the sum of percentages of NAICS 54 (24.3 percent) and NAICS 55 (0.2 percent).

¹² Note that the data in Table 14 cannot be used for firm survival study as they tracked industrial aggregated information that allowed firms entry and exit. For example, 88 firms started their businesses in the accommodation and food services sector (NAICS code 72) in 2004; by the end of 2005, there were 91 firms in this sector, including 88 that stayed in the same business with the same NAICS code, and three firms entered the sector. The three new entrants had originally started their business in the retail sector (NAICS 44); real estate and rental and leasing sector (NAICS 53); and professional, scientific, and technical services sector (NAICS 54), respectively. See Appendix Table A2 for specific industrial flows of business entry-exit from one to another.

Table 14: Business Entry-Exit Count by Industrial Classification, 2004-2006

Industry	2004			2005 ¹				2006 ¹			
	Sample Count	Sample Percent	Weighted Percent	In Industry Firm Count	Out of Industry Count	Total 2005 Sample Count	Industrial Survival Rate of 2005 ²	In Industry Firm Count	Out of Industry Count	Total 2006 Sample Count	Industrial Survival Rate of 2006 ³
11--Forestry, fishing and hunting, and agricultural support services	45	0.9	1.2	44	3	47	93.6	34	2	36	94.4
21--Mining	5	0.1	--	5	0	5	--	5	0	5	--
22--Utility	3	0.1	--	3	1	4	--	7	0	7	--
23--Construction	353	7.2	11.0	356	13	369	96.5	352	26	378	93.1
31-33--Manufacturing	881	17.9	6.4	814	43	857	95.0	603	38	641	94.1
42--Wholesale	198	4.0	5.9	186	13	199	93.5	204	14	218	93.6
44-45--Retail	484	9.8	14.2	465	38	503	92.4	431	52	483	89.2
48-49--Transportation	97	2.0	2.7	91	9	100	91.0	94	11	105	89.5
51--Information	163	3.3	3.1	148	13	161	91.9	131	10	141	92.9
52--Finance & Insurance	152	3.1	4.5	147	7	154	95.5	152	14	166	91.6
53--Real estate & rental & leasing	176	3.6	5.2	170	5	175	97.1	158	12	170	92.9
54--Professional Service	1199	24.3	16.8	1105	85	1190	92.9	1035	63	1098	94.3
55--Management	10	0.2		6	2	8	--	7	0	7	--
56--Administrative Service	396	8.0	11.1	378	17	395	95.7	321	23	344	93.3
61--Educational Service	20	0.4	--	23	1	24	95.8	27	4	31	87.1
62--Health care & social assistance	114	2.3	3.5	105	8	113	92.9	106	7	113	93.8
71--Arts, entertainment, & recreation	110	2.2	2.6	101	9	110	91.8	85	6	91	93.4
72--Accommodation & food services	88	1.8	2.5	81	10	91	89.0	74	9	83	89.2
81--Other services	434	8.8	9.2	397	26	423	93.9	372	29	401	92.8
92--Public Administration	--	--	--	--	--	--	--	3	0	3	--
Total	4928	100	--	4625	303	4928	93.9	4201	320	4521	92.9

1. The data in this table can be used for industry survival study for the current year. As firms could enter or exit from one industry to another, this table does not provide survival rate of individual firms.
2. The number of 2004 business surviving at the end of 2005.
3. The number of 2005 business surviving at the end of 2006.

Table 15: Business Survival of Selected Industries, 2004-2006

Industry	Selected Industries									
	Construction (23)		Manufacturing (31-33)		Professional Service (54)		Management (56)		Other Services (91)	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
11--Forestry, fishing and hunting, and agricultural support services	--	--	--	--	2	0.2	2	0.5	1	0.3
22--Utility	1	0.3	2	0.2	1	0.1	--	--	1	0.3
23--Construction	307	92.8	27	3.8	9	0.8	4	1.1	12	3.0
31-33--Manufacturing	2	0.6	587	71.1	13	1.2	5	1.4	10	2.5
42--Wholesale	--	--	44	5.2	10	0.9	6	1.6	2	0.5
44-45--Retail	4	1.2	39	5.0	23	2.1	14	3.7	11	2.8
48-49--Transportation	1	0.3	7	1.0	3	0.3	3	0.8	5	1.3
51--Information	3	0.9	10	1.3	14	1.3	4	1.1	3	0.8
52--Finance & insurance	1	0.3	--	--	11	1.0	7	1.9	1	0.3
53--Real estate & rental & leasing	5	1.5	2	0.3	3	0.3	5	1.3	2	0.5
54--Professional service	3	0.9	41	6.0	962	87.6	23	6.1	11	2.8
55--Management	--	--	--	--	1	0.1	3	0.8	--	--
56--Administrative service	1	0.3	18	2.0	11	1.0	285	76.0	11	2.8
61--Educational service	--	--	--	--	8	0.7	1	0.3	--	--
62--Health care & social assistance	--	--	11	1.2	6	0.5	3	0.8	2	0.5
71--Arts, entertainment, & recreation	--	--	1	0.2	5	0.5	1	0.3	2	0.5
72--Accommodation & food services	--	--	2	0.3	2	0.2	--	--	1	0.3
81--Other services	2	0.6	21	2.5	14	1.3	8	2.1	322	81.1
92--Public administration	1	0.3	--	--	--	--	1	0.3	--	--
2006 Count	331	100.0	812	100.0	1098	100.0	375	100.0	397	100.0
2004 Count	353		881		1199		396		434	
3-Year Industry survival rate (%) ¹	93.8		92.2		91.6		94.7		91.5	
3-Year Business survival rate (%) ²	87.0		66.6		80.2		72.0		74.2	

Note: This table tracks business survival rate both at the firm level and industry level.

1. Percentage of rate between 2006 count over 2004 count.
2. Percentage of rate between the numbers of firm that survived in the same industry by 2006 over 2004 count.

Table 15 uses unweighted sample data to track survival rates at both the firm-level and industry-level between 2004 and 2006 for five industries (NAICS 23–construction; 31–33–manufacturing; 54–professional services; 56–management; and 81–other services). For example, out of a total of 331 firms in the construction industry (NAICS 23), 307 firms stayed in the same industry and survived by 2006. The three-year survival rate for the industry was 93.8 percent, but the survival rate for individual firms was 87.0 percent. It is interesting to see that the manufacturing (NAICS

31-33) sector had a relatively high survival rate at the industry level (92.2 percent: 812 out of 881), but the lowest rate at the firm level (66.6 percent: 587 out of 881) by 2006 in this study. In detail, 587 startups survived in the same manufacturing industry; 69 startups either went out of business or changed industries in 2005; and the remaining 225 startups went to other industries (including 44 that went to wholesale trade (NAICS 42) and 41 that went to professional, scientific and technical services (NAICS 54).

Firm Size and the Utilization of Human Capital

Most KFS sample firms were small. Ninety-one percent of all employer firms had 10 or fewer workers, and they provided 61 percent of total employment in the unweighted sample in 2004, and 88 percent and 52 percent, respectively, in 2006 (Table 16). Startups with 25 or more employees were 2.8 percent of the total in 2004, and provided 16.9 percent of the jobs in the sample in 2004. Firms with 25 or more employees increased to 4.5 percent of the sample in 2006, and provided 22.5 percent of the jobs.

Besides creating jobs, business startups also utilize entrepreneurial tenets as important human capital. In 2004, it took 1.4 entrepreneurs on average to start a business (based on unweighted data). After 2 years, an average of 1.5 owners operated a firm (again, based on unweighted data). Firms with 10 or fewer employees employed 95 percent of the total number of startup entrepreneurs in 2004 (Table 17).

Table 16: Size and Total Employment of KFS Sample Firms, 2004-2006

Size of KFS Sample Firms	2004		2005		2006	
	Count	Percent	Count	Percent	Count	Percent
1-2	1107	57.1	1170	50.5	1053	49.1
3-10	659	34.0	892	38.5	823	38.4
11-24	119	6.1	167	7.2	172	8.0
25+	55	2.8	90	3.9	97	4.5
Total Firms	1940	100.0	2319	100.0	2145	100.0
1-2	1524	18.8	1635	14.9	1464	13.6
3-10	3433	42.3	4511	41.0	4164	38.7
11-24	1785	22.0	2602	23.7	2708	25.2
25+	1375	16.9	2250	20.5	2425	22.5
Total Employees	8117	100.0	10998	100.0	10761	100.0
Jobs per Firm	4.2		4.7		5.0	

Table 17: Size and Total Operational Owners of KFS Sample Firms, 2004-2006

Size of KFS Sample Firms*	2004		2005		2006	
	Count	Percent	Count	Percent	Count	Percent
0	2838	58.8	1633	42.0	1267	37.8
1-2	1107	23.0	1107	28.5	1035	30.9
3-10	704	14.6	892	22.9	798	23.8
11-24	119	2.5	167	4.3	163	4.9
25+	55	1.1	90	2.3	90	2.7
Total Firms	4823	100.0	3889	100.0	3353	100.0
0	3834	56.9	2166	39.7	1748	35.7
1-2	1409	20.9	1452	26.6	1343	27.5
3-10	1154	17.1	1387	25.4	1273	26.0
11-24	215	3.2	284	5.2	333	6.8
25+	122	1.8	166	3.0	195	4.0
Total Owners	6734	100.0	5455	100.0	4892	100.0
Entrepreneurs per Firm	1.4		1.4		1.5	

A sizeable number of sole proprietorships (47.1 percent), LLCs (40.8 percent), and general partnerships (58.5 percent) operated with no employees in 2006. The majority of the 2006 jobs (52.3 percent) were provided by firms with 10 or fewer workers. LLCs provided 33.5 percent of the jobs in the sample in 2006, and 50.3 percent of these were provided by LLCs with a

maximum of 10 workers. C corporations provided 16.4 percent of the 2006 job total; 32.5 percent of these were provided by C corporations with 25 or more employees (Table 18).

Table 18: Employee Size of KFS Sample Firms by Legal Form of Business, 2006
(Percent)

Employee Size of KFS Sample Firms	Legal Form of Business*							Total
	SP	LLC	S Corp	C Corp	GP	LP	Other	
Percentage of Total Firm by Employee Size and Legal Form of Business								
0	47.1	40.8	24.2	21.0	58.5	22.9	60.0	37.4
1-2	38.0	28.0	30.2	22.8	18.1	22.9	40.0	30.7
3-10	13.5	23.0	33.7	37.6	19.1	39.6	--	24.0
11-24	1.3	5.1	7.7	10.7	3.2	8.3	--	5.0
25+	0.1	3.0	4.2	7.9	1.1	6.3	--	2.8
Total Firms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage of Total Employees by Employee Size and Legal Form of Business								
1-2	37.5	12.5	9.8	5.9	14.1	8.1	100.0	13.6
3-10	44.2	37.8	40.1	32.9	45.3	37.1	--	38.7
11-24	16.5	25.3	26.5	28.6	27.6	24.6	--	25.2
25+	1.9	24.3	23.6	32.5	13.0	30.2	--	22.5
Total Employees	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent of Legal Form	12.5	33.5	33.4	16.4	1.8	2.3	0.0	100.0
* SP—sole proprietorship, LLC—limited liability company, S Corp—S corporation, C Corp—C corporation, GP—general partnership, LP—limited partnership, and Other—some other legal form.								

Do home-based businesses provide jobs? If so, how many? Table 19 shows that home-based firms in the unweighted KFS sample provided 18.0 percent of the jobs in the sample in 2004 and 19.5 percent in 2006. In 2004, there were no home-based firms in the sample with 25 or more employees. But in 2006, seven such firms had emerged and provided 8.5 percent of total home-based business jobs in that year.

Table 19: Employee Size of KFS Sample Firms by Primary Business Location, 2004 and 2006

Employee Size of KFS Sample Firms	Home-Based ¹				Non-Home-Based ²			
	Firm Count	Percent	Employee Count	Percent	Firm Count	Percent	Employee Count	Percent
2004								
0	1729	71.0	--	--	1108	46.5	--	--
1-2	552	22.7	717	49.0	554	23.2	806	12.1
3-10	144	5.9	615	42.1	558	23.4	2809	42.3
11-24	9	0.4	130	8.9	110	4.6	1655	24.9
25+	--	--	--	--	55	2.3	1375	20.7
Total	2434	100.0	1462	100.0	2385	100.0	6645	100.0
Percent ³	50.5		18.0		49.5		82.0	
2006								
0	852	51.0	--	--	425	24.5	--	--
1-2	595	35.6	773	37.3	454	26.1	685	8.0
3-10	203	12.1	900	43.5	615	35.4	3236	37.8
11-24	14	0.8	222	10.7	156	9.0	2454	28.7
25+	7	0.4	175	8.5	87	5.0	2175	25.4
Total	1671	100.0	2070	100.0	1737	100.0	8550	100.0
Percent ³	51.0		19.5		49.0		80.5	

1. Primary business location was home or garage.

2. Primary business location can be rental or purchased place or any other place out of home.

3. The percentage of home-based vs. non-home-based firms or employees totaled 100 percent.

Employer vs. Non-Employer Businesses

The KFS baseline question C5 asked what the firm's number of employees was, not counting owner(s), on December 31, 2004. This question also was asked in the follow-up surveys. About 59 percent of total KFS sample firms (2,838) reported zero employees, while another 41 percent (1,985) reported the number of employees from 1 through 25 (including all full- and part-time employees, but excluding contract workers who were not on the business' official payroll).

Table 20 illustrates the differences between employer and nonemployer firms. Out of total KFS employer firms in 2004, 1,980 had assets at an average level of 6.046 (slightly more than the level of 6, i.e., "\$10,001 to \$25,000"), but nonemployers had assets at an average level of 4.685 (less than the level of 5, i.e. "\$5,001 to \$10,000"). Overall, KFS employer firms had a stronger financial profile than nonemployer firms. Moreover, employer firms' share of the total increased from 41 percent in 2004 to 62 percent in 2006.

Table 20: Statistical Profile of Employer vs. Nonemployer Firms, 2004-2006

	Employer Firms ¹				Nonemployer Firms ²			
	Assets	Revenues	Profit	Number of Owners	Assets	Revenues	Profit	Number of Owners
2004	Total Employers: 1985 (41%)				Total Nonemployers: 2838 (59%)			
Average	6.046	4.713	4.723	1.461	4.685	3.385	3.765	1.351
Observations	1980	1907	779	1985	2834	2737	1262	2838
2005	Total Employers: 2319 (59%)				Total Nonemployers: 1633 (41%)			
Average	6.361	5.564	5.415	1.418	5.336	4.475	4.497	1.326
Observations	2310	2269	1336	2319	1630	1604	992	1633
2006	Total Employers: 2145 (62%)				Total Nonemployers: 1280 (38%)			
Average	6.521	5.713	5.643	1.507	5.298	4.725	4.669	1.380
Observations	2084	2078	1352	2086	1265	1249	816	1267
Note: The methodology for the statistics used in this table can be found in Appendix 2. 1. Firms with at least one employee. 2. Firms with no employees.								

Legal Form of Business

Legal form has important implications for such variables as taxation, ownership, assets, revenue, profit, and employment. As of December 31, 2004, about one-third of startups in the KFS sample were registered as sole proprietorships, followed by another popular legal form—limited liability companies (or LLCs; see Table 21). This is very different from Economic Census data. For example, in 1997 almost 73 percent of all U.S. firms, 82 percent of minority-owned firms, and 85 percent women-owned firms operated as sole proprietorships. Since then, LLCs have become more and more common.¹³ Notice that KFS under-sampled sole proprietorships and partnerships, but over-sampled LLCs, S corporations, and C corporations.

¹³ Almost all of the 50 states had enacted an LLC statute by 1996 when the National Conference of Commissioners on Uniform State Laws adopted the Uniform Limited Liability Company Act. The act was revised in 2006.

Table 21: Confirmed Legal Form of Business in the KFS, 2004-2006

Legal Form of Business	2004			2005		2006	
	Sample Count	Sample Percent	Weighted Percent	Sample Count	Sample Percent	Sample Count	Sample Percent
Sole Proprietorship	1,635	33.2	35.8	1,272	31.8	1,052	30.3
Limited Liability Company	1,557	31.6	30.5	1,305	32.6	1,158	33.4
S Corporation	1,040	21.1	20.1	898	22.5	817	23.6
C Corporation	441	8.9	7.9	333	8.3	291	8.4
General Partnership	170	3.4	3.9	123	3.1	96	2.8
Limited Partnership	74	1.5	1.6	61	1.5	50	1.4
Some Other Form	11	0.2	0.2	6	0.2	5	0.1
	4,928	100.0	100.0	3,998	100.0	3,469	100.0

Notes: See Appendix 3 for the explanation of these seven legal forms.

In 2004, all 4,928 firms confirmed their legal form of business during the Kauffman Firm Survey. This confirmed count dropped to 3,998 in 2005 and to 3,469 in 2006 (Table 21). Among these original 4,928 startup firms, 1,635 were operated as sole proprietorship in 2004. By 2006, 45 had changed into LLCs, 37 into S corporations, 16 into C corporations, 5 into general partnerships, and 3 into limited partnerships (Table 22). Of the 11 startups with some other legal form, 5 remained in the same status, 2 changed into sole proprietorships, and 4 were unknown.

Table 22: Cross-tabulation of 2004 and 2006 Legal Forms of Business

Legal Form of Business		2006 Legal Form*							Total
		SP	LLC	S Corp	C Corp	GP	LP	Other	
2004 Legal Form	Sole Proprietorship	1026	45	37	16	7	3	0	1134
	Limited Liability Company	10	1098	24	8	1	2	0	1143
	S Corporation	4	8	718	11	0	1	0	742
	C Corporation	2	2	28	255	1	0	0	288
	General Partnership	7	4	6	0	87	0	0	104
	Limited Partnership	1	1	4	1	0	44	0	51
	Some Other Form	2	0	0	0	0	0	5	7
	Total	1052	1158	817	291	96	50	5	3469

* SP–sole proprietorship, LLC–limited liability company, S Corp– S corporation, C Corp–C corporation, GP–general partnership, LP–limited partnership, and Other–some other legal form.

Table 23: Comparison of 2004 and 2006 Legal Form of Business

Legal Form of Business	2004	2006 Sample Count				Legal Form Consistent Rate (6)
	Sample Count (1)	In 2006 Legal Form (2)	In 2004 Legal Form (3)	Changed Legal Form (4)	Never Changed Legal Form (5)	
Sole Proprietorship	1635	1052	1134	108	1026	63%
Limited Liability Company	1557	1158	1143	45	1098	71%
S Corporation	1040	817	742	24	718	69%
C Corporation	441	291	288	33	255	58%
General Partnership	170	96	104	17	87	51%
Limited Partnership	74	50	51	7	44	59%
Some Other Form	11	5	7	2	5	45%
Total	4928	3469	3469	236	3233	66%
Notes:						
(1) 2004 number of firms that were recorded in 2004 legal form.						
(2) 2006 number of firms that were recorded in 2006 legal form.						
(3) 2006 number of firms that were recorded in 2004 legal form = (4) + (5).						
(4) 2006 number of firms that had changed legal form.						
(5) 2006 number of firms that never changed their legal form.						
(6) Percent of 2006 firms that never changed legal form their 2004 legal form, i.e., percentage number of [(6) = (5) ÷ (1)].						

There were a total 3,233 firms (the sum of the diagonal cells in Table 22) that never changed their legal form of business in the 3 years since they began operating in 2004. Most firms did not change their form of business; most consistent were LLCs at 71 percent and S corporations at 69 percent (Table 23).

Is there any financial incentive for firms to change their legal form of business? Table 24 provides a comparison of the revenues in 2005 and 2006 of firms that changed their legal forms and those that did not. It appears that a much higher share of firms that changed their legal status were in the high revenue categories. For example, there was a difference of more than 10 percentage points in the “\$100,001 or more” revenue category: 43.4 percent of firms changed their legal form in 2005, while 32.3 percent did not; and 49.1 percent changed in 2006, while 38.4 percent did not.

Table 24: Revenue of Firms With Changed and Unchanged Legal Form of Business

Value	2005 Revenue				2006 Revenue			
	Firms That Did Not Change Legal Form (1)		Firms That Changed Legal Form (2)		Firms That Did Not Change Legal Form (3)		Firms That Changed Legal Form (4)	
	Sample Count	Sample Percent	Sample Count	Sample Percent	Sample Count	Sample Percent	Sample Count	Sample Percent
No Revenue	925	24.6	35	23.0	740	23.5	27	25.0
Some Revenue (\$10,000 or less)	542	14.4	11	7.2	366	11.6	4	3.7
\$10,001 to \$100,000	1083	28.8	40	26.3	833	26.5	24	22.2
\$100,001 or more	1216	32.3	66	43.4	1210	38.4	53	49.1
Total	3766	100.0	152	100.0	3149	100.0	108	100.0

Notes:
(1) 2005 legal form is the same as that of 2004.
(2) 2005 legal form differs from that of 2004.
(3) 2006 legal form is the same as that of 2005.
(4) 2006 legal form differs from that of 2005.

How did ownership structure influence the choice of legal form of business? In a cross-tabulation of the number firm owners and the firm's legal form, Table 25 indicates that more firms in 2006 (1,124) chose the LLC form than the sole proprietorship form (1,043). In 2006, 56 percent of all LLCs had a single owner, 33 percent had two owners, and 11 percent had three or more owners. Compared with 2004, the proportion of single owners had increased in all legal forms but C corporations in 2006. More than 75 percent of general partnerships were organized by two owners in 2004 and 2006. The percentage of firms with three or more owners dropped 5 percentage points for S corporations and 19 percentage points for limited partnerships in 2006, compared with 2004.

How is legal form associated with firm employment? Table 26 demonstrates that most jobs were provided by LLCs (33.0 percent of total new jobs), S corporations (32.5 percent), and C corporations (16.6 percent) in 2004. In 2006, LLCs made up 33.6 percent of the firms in the sample and provided 33.5 percent of total KFS jobs. Less than 9 percent of total KFS sample firms were C corporations; they provided more than 16 percent of total jobs in both 2004 and 2006.

Table 25: Number of Business Owners and Firm's Legal Form in 2004 and 2006

	Number of Owners in a Firm	Legal Form of Business*							Total
		SP	LLC	S Corp	C Corp	GP	LP	Other	
2004	Single Owner	1635	789	514	194	12	11	8	3163
	Two Owners	0	768	526	247	158	63	3	1765
	Three or More	0	230	123	108	26	22	0	509
	2004 Total	1635	1557	1040	441	170	74	11	4928
	Single Owner %	100	51	49	44	7	15	73	64
	Two Owners %	0	35	39	32	78	55	27	25
	Three or More %	0	15	12	24	15	30	0	10
2006	Single Owner	1043	632	437	121	12	19	4	2268
	Two Owners	0	373	294	107	71	23	1	869
	Three or More	0	119	63	54	12	5	0	253
	2006 total	1043	1124	794	282	95	47	5	3390
	Single Owner %	100	56	55	43	13	40	80	67
	Two Owners %	0	33	37	38	75	49	20	26
	Three or More %	0	11	8	19	13	11	0	7

* SP—sole proprietorship, LLC—limited liability company, S Corp— S corporation, C Corp—C corporation, GP—general partnership, LP—limited partnership, and Other—some other legal form.

Table 26: Number of Firms and Employees by Legal Form of Business, 2004 and 2006 (Percent)

	Legal Form of Business*							
	SP	LLC	S Corp	C-Corp	GP	LP	Other	Total
2004								
Total Firms	33.1	31.7	21.1	8.9	3.5	1.5	0.2	100.0
Total Employees	12.6	33.0	32.5	16.6	2.6	2.4	0.3	100.0
2006								
Total Firms	30.0	33.6	23.6	8.5	2.7	1.4	0.1	100.0
Total Employees	12.5	33.5	33.4	16.4	1.8	2.3	0.0	100.0

* SP—sole proprietorship, LLC—limited liability company, S Corp— S corporation, C Corp—C corporation, GP—general partnership, LP—limited partnership, and Other—some other legal form.

Table 27: Assets and Legal Form of Business, 2004 and 2006
(Percent)

Asset Category	Legal Form of Business*							Total
	SP	LLC	S Corp	C Corp	GP	LP	Other	
2004								
No Assets	14.1	11.5	9.9	12.1	11.2	13.5	18.2	12.1
Some Assets (\$10,000 or less)	40.4	24.0	20.7	22.6	31.2	17.6	27.3	28.8
\$10,001 to \$100,000	36.2	38.8	42.8	35.8	37.6	31.1	36.4	38.3
\$100,001 or more	9.3	25.7	26.6	29.5	20.0	37.8	18.2	20.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2006								
No Assets	9.1	6.7	3.8	7.8	8.4	10.6	40.0	7.0
Some Assets (\$10,000 or less)	34.7	17.8	12.1	10.6	23.2	14.9	40.0	21.2
\$10,001 to \$100,000	40.4	39.4	39.2	31.9	35.8	27.7	20.0	38.8
\$100,001 or more	15.7	36.1	45.0	49.6	32.6	46.8	0.0	33.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* SP–sole proprietorship, LLC–limited liability company, S Corp– S corporation, C Corp–C corporation, GP–general partnership, LP–limited partnership, and Other–some other legal form.

Table 28: Revenue and Legal Form of Business, 2004 and 2006
(Percent)

Revenue Category	Legal Form of Business*							Total
	SP	LLC	S Corp	C Corp	GP	LP	Other	
2004								
No Revenue	35.8	34.9	35.0	44.4	29.3	38.9	36.4	35.9
Some Revenue (\$10,000 or less)	28.4	15.6	10.2	8.6	28.0	13.9	27.3	18.5
\$10,001 to \$100,000	28.2	29.1	27.2	22.4	26.2	25.0	36.4	27.7
\$100,001 or more	7.6	20.4	27.6	24.6	16.5	22.2	0.0	17.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2006								
No Revenue	30.9	20.1	18.0	27.6	30.9	29.8	0.0	23.9
Some Revenue (\$10,000 or less)	20.6	9.8	3.8	3.2	12.8	4.3	50.0	11.2
\$10,001 to \$100,000	33.3	27.2	20.1	13.4	28.7	14.9	50.0	26.1
\$100,001 or more	15.3	42.9	58.1	55.8	27.7	51.1	0.0	38.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* SP–sole proprietorship, LLC–limited liability company, S Corp– S corporation, C Corp–C corporation, GP–general partnership, LP–limited partnership, and Other–some other legal form.

Does financial strength affect the choice of legal form of business? In 2004, about 12.1 percent of all startups did not have any assets (Table 27). Only 9.3 percent of sole proprietorships had assets exceeding \$100,000, while 37.8 percent of limited partnerships had shown that degree of financial strength. Except for those in the “other forms” category, all businesses showed strong

financial improvement by 2006. Nearly half of C corporations (49.6 percent), limited partnerships (46.8 percent) and S corporations (45.0 percent) had assets over \$100,000. At the same time, less than 16 percent of sole proprietorships had assets at this level, but over 40 percent of them had assets between \$10,001 and \$100,000.

How are legal form of business and revenue associated? In the startup year of 2004, 44.4 percent of C corporations did not generate any revenue; by the end of 2006, 27.6 percent of them had no revenue. There was an average 12 percent drop in the number of firms not generating revenue in 2006 as compared to 2004, and a 20 percent increase in firms that had revenue of more than \$100,000 (Table 28). Specifically, 58.1 percent of S corporations, 55.8 percent of C corporations, and 51.1 percent of limited partnerships generated more than \$100,000 in revenue in 2006.

IV. Dynamics of KFS Businesses

Businesses grow in two ways: increased employment and increased revenues. Additional dimensions of firm dynamics are going out of business or experiencing a contraction in employment or revenues.

Expanding Employers

Tables 29 through 32 examine growing employers. Table 29 indicates that 41.3 percent of all firms added workers in 2005; the growing employers share in total dropped to 31.1 percent in 2006. Businesses with multiple owners had a higher rate of growing firms in total than those that only had single owner. For example, about 46 percent of businesses with multiple owners added more employees in 2005, while 39.4 percent of businesses with a single owner hired more workers.

Table 30 gives a comparison of the legal form of business of growing and stable or contracting firms. C corporations, S corporations and limited partnerships had a higher rate of growing business than businesses with other legal forms. Sole proprietorships in general had a lower rate of growing firms. In 2005, 42.4 percent of limited partnerships increased their employment. This percentage rose to 50 percent in 2006. Table 31 suggests that about half of businesses that leased

or purchased their primary location hired more employees in 2005, and about 40 percent of these firms grew in 2006. In 2005, nearly one-third of home-based businesses hired more workers, and about one-quarter of these home-based firms increased employment in 2006.

Table 29: Ownership Size of Expanding Employers, 2005 and 2006

Size of Ownership Group	2005					2006				
	Expanding Employers		Stable or Contracting Firms*		Share** (%)	Expanding Employers		Stable or Contracting Firms*		Share** (%)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Percent	Sample Count	Sample Percent	
Single Owner	1075	67.4	1652	72.9	39.4	619	62.0	1519	68.7	29.0
Two Owners	399	25.0	473	20.9	45.8	275	27.6	555	25.1	33.1
Three or More	120	7.5	140	6.2	46.2	104	10.4	136	6.2	43.3
Total	1594	100.0	2265	100.0	41.3	998	100.0	2210	100.0	31.1

*Including nonemployers.
**Percent of expanding employers in total firms.

Table 30: Legal Form of Expanding Employers, 2005 and 2006

Legal Form of Business	2005					2006				
	Expanding Employers		Stable or Contracting Firms*		Share** (%)	Expanding Employers		Stable or Contracting Firms*		Share** (%)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Percent	Sample Count	Sample Percent	
Sole Proprietorship	415	26.0	794	35.1	34.3	255	25.1	711	31.7	26.4
Limited Liability Company	501	31.4	766	33.8	39.5	337	33.1	767	34.2	30.5
S Corporation	422	26.5	456	20.1	48.1	287	28.2	491	21.9	36.9
C Corporation	183	11.5	136	6.0	57.4	95	9.3	178	7.9	34.8
General Partnership	44	2.8	77	3.4	36.4	20	2.0	71	3.2	22.0
Limited Partnership	25	1.6	34	1.5	42.4	24	2.4	24	1.1	50.0
Some Other Form	4	0.3	2	0.1	66.7			4	0.2	0.0
Total	1594	100.0	2265	100.0	41.3	1018	100.0	2246	100.0	31.2

*Including nonemployers.
**Percent of expanding employers in total firms.

Table 31: Expanding Employers' Primary Business Location, 2004 and 2005

Primary Business Location	2005					2006				
	Expanding Employers		Stable or Contracting Firms*		Share** (%)	Expanding Employers		Stable or Contracting Firms*		Share** (%)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Percent	Sample Count	Sample Percent	
Home or Garage	617	38.8	1284	56.8	32.5	397	39.0	1203	53.6	24.8
Rented/Leased Space	798	50.2	728	32.2	52.3	489	48.0	801	35.7	37.9
Purchased Space	105	6.6	114	5.1	47.9	88	8.6	121	5.4	42.1
Client Site	50	3.1	110	4.9	31.3	30	2.9	97	4.3	23.6
Other	20	1.3	23	1.0	46.5	14	1.4	22	1.0	38.9
Total	1590	100.0	2259	100.0	41.3	1018	100.0	2244	100.0	31.2

*Including nonemployers.
 **Percent of expanding employers in total firms.

Table 32: Employee Size of Expanding Employers, 2005 and 2006

Number of Employees	2005					2006				
	Expanding Employers		Stable or Contracting Firms*		Share** (%)	Expanding Employers		Stable or Contracting Firms*		Share** (%)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Percent	Sample Count	Sample Percent	
Zero			1595	70.4	0.0			1224	54.5	0.0
One	426	26.7	266	11.7	61.6	243	23.9	371	16.5	39.6
2 to 10	985	61.8	340	15.0	74.3	635	62.4	541	24.1	54.0
11 to 24	132	8.3	28	1.2	82.5	108	10.6	52	2.3	67.5
25 or more	51	3.2	36	1.6	58.6	32	3.1	58	2.6	35.6
Total	1594	100.0	2265	100.0	41.3	1018	100.0	2246	100.0	31.2

*Including nonemployers.
 **Percent of expanding employers in total firms.

Table 32 indicates that 1,595 businesses remained non-employers in 2005 and 1,224 in 2006; these numbers represent 70.4 percent of all stable or contracting firms in 2005 and 54.5 percent in 2006. More than 73 percent of all growing firms had more than one employee in 2005. This percentage increased to more than 76 percent in 2006. For all firms that had 25 or more employees, 58.6 percent of them had increased employment in 2005, but this percentage dropped to 35.6 percent in 2006.

Businesses with Growing Revenues

The KFS recorded 1,035 employer firms with revenue growth in 2005, and 497 in 2006; these numbers represent 44.6 percent and 23.2 percent of employer firms that had revenue growth in these two years, respectively. In 2005, 43.8 percent nonemployer firms had revenue growth and 28 percent in 2006. There were 716 nonemployer firms with expanding revenues in 2005 and 359 in 2006. About 30 percent of all nonemployer firms with expanding revenues had multiple owners while one-third of employer firms with expanding revenues had multiple owners in 2006 (Table 33). About 60 percent of all employer firms with expanding revenues had more than \$100,000 in revenue in both 2005 and 2006; about half of nonemployer firms with expanding revenues were in the \$10,001 to \$100,000 category (Table 34).

Table 33: Businesses with Growing Revenues and Size of Ownership, 2005 and 2006

Ownership Size	Employers				Non-Employers			
	2005		2006		2005		2006	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Total Firms	2319	--	2145	--	1633	--	1280	--
One Owner	710	68.6	330	66.4	505	70.5	249	69.4
Two Owners	240	23.2	125	25.2	168	23.5	87	24.2
Three or More Owners	85	8.2	42	8.4	43	6.0	23	6.4
Total Firms with Expanding Revenue	1035	100.0	497	100.0	716	100.0	359	100.0
Percent of Growing Firms	44.6%	--	23.2%	--	43.8%	--	28.0%	--

Table 34: Businesses with Growing Revenues by Size of Revenues, 2005 and 2006

Revenue Category	Employers ¹				Non-Employers ²			
	2005		2006		2005		2006	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Some Revenue (\$10,000 or less)	106	10.3	53	10.6	188	26.3	77	21.4
\$10,001 to \$100,000	316	30.5	134	26.6	367	51.3	178	49.6
\$100,001 or more	613	59.2	316	62.8	161	22.4	104	29.0
Total	1035	100.0	503	100.0	716	100.0	359	100.0

Tables 35 and 36, respectively, show the profits and the assets of employer and nonemployer firms with expanding revenues. Notice that only about 60 percent of all employer and nonemployer firms reported a profit in 2005 and 2006. About 64 percent of employer firms and less than half of nonemployer firms had a profit of more than \$10,000. Less than 19 percent of employer firms and more than 34 percent of nonemployer firms had total assets of \$10,000 or less.

Table 35: Businesses with Growing Revenues by Size of Profits, 2005 and 2006

Profit Category	Employers				Non-Employers			
	2005		2006		2005		2006	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
No Profit	32	5.1	13	3.9	36	7.8	13	4.9
Some Profit (\$10,000 or less)	195	31.2	105	31.5	199	43.3	128	48.7
\$10,001 to \$100,000	296	47.4	150	45.0	201	43.7	111	42.2
\$100,001 or more	102	16.3	65	19.5	24	5.2	11	4.2
Total	625	100.0	333	100.0	460	100.0	263	100.0

Table 36: Businesses with Growing Revenues by Asset Size, 2005 and 2006

Asset Category	Employers				Non-Employers			
	2005		2006		2005		2006	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
No Asset	28	2.7	17	3.4	19	2.7	19	5.3
Some Assets (\$10,000 or less)	135	13.1	76	15.3	230	32.1	115	32.0
\$10,001 to \$100,000	465	45.0	183	36.9	356	49.7	174	48.5
\$100,001 or more	405	39.2	220	44.4	111	15.5	51	14.2
Total	1033	100.0	496	100.0	716	100.0	359	100.0

Firms that Went Out of Business: A Comparison of Startups and Survivors

The KFS included a question about how owners chose to exit their businesses. Among all KFS sample firms, 6 percent went out of business either temporarily or permanently in 2005, and an additional 7 percent did so in 2006. Of these, 13 percent were sold to or merged with other companies in 2005, and 16 percent were in 2006 (Table 37).

In 2005, 303 firms went out of business for various reasons. About 57 percent of these firms went permanently out of business; over 14 percent were either sold to or merged with other businesses. In 2006 another 320 firms closed, of which 39 were sold to other businesses and 8 merged with other businesses. These 47 firms should be treated differently from other firms that went out of business. Unfortunately, the sample is too small to draw statistically significant conclusions.

Table 37: Method of Exiting Business in the KFS, 2005 and 2006

Means of Business Exit	2005 ¹				2006 ²			
	Sample Count	Sample Percent	Estimated Count	Weighted Percent	Sample Count	Sample Percent	Estimated Count	Weighted Percent
Sold to Another Business	32	10.6	475	10.5	39	12.2	832	13.0
Merged with Another Business	11	3.6	133	2.9	8	2.5	168	2.6
Temporarily Stopped Operations	70	23.1	971	21.5	71	22.2	1,333	20.9
Permanently Out of Business	172	56.8	2,625	58.1	188	58.8	3,794	59.5
Other	18	5.9	316	7.0	14	4.3	254	4.0
Total	303	100.0	4,519	100.0	320	100.0	6,381	100.0

Note: For detailed information of estimated count and weighted percent, see Robb, Alicia and David DesRoches (2008), "Kauffman Firm Survey: Baseline/First/Second Follow-Up," May 6.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1024312&rec=1&srcabs=1284474.
1. Tabulation of all KFS sample firms in the first follow-up survey.
2. Tabulation of all KFS sample firms in the second follow-up survey.

Table 38 summarizes the characteristics of KFS sample firms by survival status: those that started in 2004, that went out of business in 2005 or 2006, or that survived in 2006. In terms of financial strength, 12.2 percent of startups had no assets in 2004 and 20.8 percent had more than \$100,000. Among 2006 survivors, only 7 percent had no assets, and those with more than \$100,000 increased to 33 percent.

Table 38: Comparison of KFS Sample Firms: Startups, Exits and Survivors, 2004-2006

Categories*	Startup in 2004		Closed in 2005		Closed in 2006		Survived in 2006	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Assets								
No Assets	597	12.2	51	16.8	34	12.6	237	7.0
\$10,000 or less	1414	28.8	124	40.9	83	30.6	718	21.2
\$10,001 to \$100,000	1884	38.3	95	31.4	103	38.0	1312	38.8
\$100,001 or more	1020	20.8	33	10.9	51	18.8	1118	33.0
Total	4915	100.0	303	100.0	271	100.0	3385	100.0
Primary Business Location								
Home-Based	2483	50.4	183	60.4	157	58.2	1692	49.2
Non-Home-Based	2439	49.6	120	39.6	113	41.8	1750	50.8
Total	4922	100.0	303	100.0	270	100.0	3442	100.0
Legal Form								
Sole Proprietorship	1635	33.2	128	42.2	105	38.8	1049	30.3
Limited Liability Company	1557	31.6	82	27.1	80	29.5	1158	33.4
S Corporation	1040	21.1	54	17.8	47	17.3	817	23.6
C Corporation	441	9.0	25	8.3	24	8.9	290	8.4
General Partnership	170	3.5	10	3.3	12	4.4	96	2.8
Limited Partnership	74	1.5	4	1.3	3	1.1	50	1.4
Some Other Form	11	0.2	--	--	--	--	5	0.1
Total	4928	100.0	303	100.0	271	100.0	3465	100.0
Number of Owners								
One	3445	69.9	229	75.6	209	77.1	2268	66.9
Two	1168	23.7	62	20.5	50	18.5	869	25.6
Three or More	315	6.4	12	4.0	12	4.4	253	7.5
Total	4928	100.0	303	100.0	271	100.0	3390	100.0
Number of Employees								
Zero	2838	58.8	197	65.9	137	51.5	1278	37.4
One	690	14.3	41	13.7	53	19.9	641	18.7
2-10	1121	23.3	59	19.7	67	25.2	1233	36.1
11-24	119	2.5	1	0.3	8	3.0	172	5.0
25 or More	55	1.1	1	0.3	1	0.4	97	2.8
Total	4823	100.0	299	100.0	266	100.0	3421	100.0
Revenue								
No Revenue	1704	35.9	118	40.7	75	28.1	804	23.9
\$10,000 or less	878	18.5	68	23.5	51	19.1	375	11.2
\$10,001 to \$100,000	1311	27.7	76	26.2	86	32.2	878	26.1
\$100,001 or more	848	17.9	28	9.7	55	20.6	1305	38.8
Total	4741	100.0	290	100.0	267	100.0	3362	100.0
Tabulation of KFS microdata http://www.kauffman.org/kfs/resources.cfm?user_id=4439&cat=data .								
* See Appendix 3 for explanation of category variables.								

While half of all startups were home based, two out of three of the firms that closed were home based. Almost 51 percent of 2006 survivors operated in leased or purchased space. One in three startups operated as sole proprietors in 2004; two in five of the firms that went out of business in

2005 and 2006 were sole proprietors. Of the 2006 survivors, 33.4 percent were LLCs, 30.3 percent were sole proprietors, and 23.6 percent were S corporations. About 70 percent of 2004 KFS sample firms were started by individual owners; about three in four of the closed firms were operated by one owner. Among all 2006 survivors, almost one in three were run by multiple owners.

There were 2,838 startups without any paid employees, or 58.8 percent of the 2004 sample. By 2006, only 1,278 surviving firms had no employees (37.4 percent of sample). The majority of drop-out firms had no paid employees in 2005 (65.9 percent) and 2006 (51.5 percent). The number of 2006 survivors with two or more employees increased from 1,295 in 2004 to 1,502, a growth rate of 16 percent.

Of the 1,704 firms with no revenue in 2004, more than half had disappeared by 2006 (804). During the startup year, only 848 firms (17.9 percent of the sample) had revenue of more than \$100,000; the absolute number and percentage of firms in the sample with revenues greater than \$100,000 surged to 1,305 and 38.8 in 2006. Not all firms that were out of business had low revenue. Among all firms that were out of business in 2005, almost one in 10 had over \$100,000 revenue; in 2006, one in five firms that were out of business had more than \$100,000 revenue.

Table 39 provides detailed industry information for employers and nonemployers in the KFS sample. There were 382 firms that increased employment both in 2005 and 2006. Among these growing firms, more than 24 percent were in manufacturing, and 20.9 percent were in professional services. The professional service sector seemed to be the most dynamic sector. It had 42.6 percent of the firms with contracting revenue, 29.3 percent of the firms with expanding revenue, 29.6 percent of firms with contracting employment, and 20.9 percent of firms with growing employment. In addition, over 26 percent of nonemployer firms (since 2004) and less than 23 percent of employer firms (since 2004) were in the professional services industry in 2006.

Table 39: Business Characteristics of KFS Sample Firms by NAICS Codes, 2004-2006

NAICS Code	All KFS Sample Firms, 2006		Firms with Shrinking Revenue, 2005 and 2006		Firms with Expanding Revenue, 2005 and 2006		Firms with Employees in 2004, 2005, and 2006		Firms with No Paid Employees in 2004, 2005, and 2006		Firms with Shrinking Employment, 2005 and 2006		Firms with Expanding Employment, 2005 and 2006	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
11-Forestry, fishing and hunting, and agricultural support services	36	0.8	--	--	2	0.7	9	0.9	9	1.2	--	--	3	0.8
21-Mining	5	0.1	--	--	--	--	1	0.1	1	0.1	--	--	1	0.3
22-Utility	7	0.2	--	--	--	--	1	0.1	1	0.1	--	--	--	--
23-Construction	378	8.4	1	2.1	19	6.6	75	7.5	64	8.3	2	3.7	28	7.3
31-33-Manufacturing	641	14.2	4	8.5	46	15.9	182	18.2	83	10.8	13	24.1	92	24.1
42-Wholesale	218	4.8	2	4.3	18	6.2	46	4.6	29	3.8	2	3.7	28	7.3
44-45-Retail	483	10.7	7	14.9	39	13.5	116	11.6	71	9.2	9	16.7	34	8.9
48-49-Transportation	105	2.3	0	0.0	4	1.4	28	2.8	9	1.2	1	1.9	14	3.7
51-Information	141	3.1	2	4.3	8	2.8	19	1.9	33	4.3	0	0.0	6	1.6
52-Finance & Insurance	166	3.7	2	4.3	6	2.1	36	3.6	35	4.5	1	1.9	11	2.9
53-Real estate & rental & leasing	170	3.8	1	2.1	6	2.1	22	2.2	51	6.6	0	0.0	6	1.6
54-Professional Service	1098	24.3	20	42.6	85	29.3	227	22.8	202	26.2	16	29.6	80	20.9
55-Management	7	0.2	--	--	--	--	1	0.1	1	0.1	0	0.0	1	0.3
56-Administrative Service	344	7.6	3	6.4	18	6.2	72	7.2	46	6.0	6	11.1	25	6.5
61-Educational Service	31	0.7	0	0.0	1	0.3	6	0.6	5	0.6	0	0.0	1	0.3
62-Health care & social assistance	113	2.5	0	0.0	9	3.1	41	4.1	16	2.1	1	1.9	15	3.9
71-Arts, entertainment, & recreation	91	2.0	0	0.0	7	2.4	15	1.5	20	2.6	0	0.0	2	0.5
72-Accommodation & food services	83	1.8	0	0.0	4	1.4	35	3.5	5	0.6	0	0.0	5	1.3
81-Other services	401	8.9	5	10.6	17	5.9	65	6.5	88	11.4	3	5.6	30	7.9
92-Public Administration	3	0.1	0	0.0	1	0.3	1	0.1	2	0.3	0	0.0	--	--
Total	4521	100.0	47	100.0	290	100.0	998	100.0	771	100.0	54	100.0	382	100.0

V. Conclusion

The KFS is a valuable research tool in that it provides accurate information about new business sustainability and development. This study shows that business startups are engines for job creation. An average of 5.5 jobs per KFS startup business were created in 2004, including not only 4.1 paid employees, but also 1.4 operational business owners, or “entrepreneurial jobs.”¹⁴ Given that at least a half million firms start in business every year in the United States, this is a massive injection of productive human capital into the economy. These operational business owners proactively create or reinvent new ventures that utilize their own and their employees' talents, infusing capital and new ideas to create opportunities for them all, and provide products or services to the economy.¹⁵ In addition to job-creation, these entrepreneurs serve as engines for innovation and economic growth.

The KFS data also measure the impact of these business startups in terms of the generation of wealth. In their startup year, the sample firms generated an estimated value of more than \$575 million in revenue. By 2006, the total estimated revenue of KFS sample firms increased to \$879 million, up 53 percent since 2004. The average revenue per KFS sample firms grew 115 percent from \$121,358 in 2004 to \$261,499 in 2006. The average payroll per KFS employee grew 56 percent, from \$26,267 in 2004 to \$40,985 in 2006.

The majority of startups were new and independent businesses. However, franchises and acquired businesses tended to be in a stronger financial position than independent startups; they also had lower closure rates, more employees, and more business owners. Home-based startups and young businesses create jobs and generate revenues, however, they tend to have a weaker financial base, hire fewer workers, and grow more slowly, as compared to non-home-based startups and businesses. The majority (95 percent) of KFS entrepreneurs started their businesses

¹⁴ This term was coined by John Tozzi, Business Week reporter in his online report: “The Entrepreneurship Job,” http://www.businessweek.com/smallbiz/running_small_business/archives/2009/04/the_entrepreneu.html.

¹⁵ See Joseph Schumpeter (1947), “The Creative Response in Economic History,” in *Essays on Entrepreneurs, Innovations, Business Cycles, and the Evolution of Capitalism*, Transaction Publishers, New Brunswick and London, 3rd printing, 1997, p. 223-224: “the defining characteristic is simply the doing of new things or the doing of things that are already being done in a new way (innovation).” In addition, “the entrepreneur ‘gets things done.’”

small (with 10 or fewer employees). On average, KFS employer firms had a stronger financial profile than nonemployers. As these businesses grew, employer firms' share of all sample firms increased more than 20 percent. The limited liability company became a popular legal form for KFS businesses. In general, firms that changed their legal status had higher business revenues than those that did not.

In terms of employment expansion, firms with multiple owners had higher rates of employment growth than those with single owners; C corporations, S corporations and limited partnerships had higher rates of growth than businesses with other legal forms. Sole proprietorships in general had lower rates of growth, and a higher percentage of non-home-based firms increased employees than home-based firms did. In terms of revenue expansion, employer firms were more likely to grow than nonemployer firms. The closure rate for KFS sample firms was 6 percent in 2005 and 7 percent in 2006. Not all exiting firms failed; more than 13 percent were either sold or merged with other companies. Among all firms that went out of business, more than 60 percent were home based; 76 percent were operated by single owners.

The KFS database contains very rich information about characteristics of firms and business owners.¹⁶ Much more can be explored with depth for a specific issue related to business startups and young firms. For example, the author noticed that the KFS startup firms' employment seemed to be positively related to wage and many other fringe benefits that a firm may offer. Also, KFS business revenue seemed to be strongly related to a firm's total assets. These two observations may lead to further microeconomic studies on the linkage between business growth and capital (represented by total assets) and labor (associated with benefits that a firm offers). In addition, KFS investigators have strong interests in startup financing and women business owners. Therefore, the data can provide very detailed information for those who may want to explore startup financing and various owners' characteristics, including gender. In short, there are countless angles for future research that could be explored using the Kauffman Firm Survey, and hopefully, this research sparks further investigation into them.

¹⁶ Related research papers using the KFS database can be found on the Social Science Research Network website http://papers.ssrn.com/sol3/JELJOUR_Results.cfm?form_name=journalBrowse&journal_id=1008679.

Appendix 1: Survey Data and Methodology

The Kauffman Firm Survey (KFS) is a longitudinal study focusing on business startups in high-technology that become high-growth young firms. Information about the methodology of the survey is available at <http://sites.kauffman.org/kfs/created.cfm>. For detailed information on KFS data, visit http://sites.kauffman.org/kfs/resources.cfm?user_id=4439&cat=data.

Most tables provided in this report did not use weighted data for three reasons. First, the KFS investigators have been publishing information and analysis that used weighted data to partially correct the over-sampling and under-sampling problem; there is no need to replicate what has been made available to the public. Second, the report did not intend to extrapolate the KFS sample to nationwide business startups. Instead, the report focused on the KFS sample firms to provide unique insights into over-sampled high tech sectors and high-growth young firms. Third, the report relied on many cross-tabulations that created many special angles to examine startups' characteristics and dynamics. These cross-sectional, cross-variable and cross-year examinations made data weighting difficult, if not impossible.

Appendix 2: Software and Statistics

The Kauffman Firm Survey data was downloaded from http://sites.kauffman.org/kfs/resources.cfm?user_id=4439&cat=data in SAS format, and then transferred to EViews 6 software package for statistical analysis. The results of statistical analysis were formatted in MS-Excel for final presentations in the report.

Because of the large sample, the majority of tabulations and cross-tabulations provided in the report are statistically significant. Nevertheless, readers should be cautious about tables with small numbers of observations. Statistics that have been used in some tables in this report include mean, median, max, min, std. dev., skewness, kurtosis, Jarque-Bera, probability, and observations.

Mean is the average value of the series, obtained by adding up the series and dividing by the number of observations. Median is the middle value (or average of the two middle values) of the series when the values are ordered from the smallest to the largest. The median is a robust measure of the center of the distribution that is less sensitive to outliers than the mean. Max and Min are the maximum and minimum values of the series in the current sample. Std. Dev. (standard deviation) is a measure of dispersion or spread in the series.

Skewness is a measure of asymmetry of the distribution of the series around its mean. The skewness of a symmetric distribution, such as the normal distribution, is zero. Positive skewness means that the distribution has a long right tail and negative skewness implies that the distribution has a long left tail.

The kurtosis of the normal distribution is 3. If the kurtosis exceeds 3, the distribution is peaked (leptokurtic) relative to the normal; if the kurtosis is less than 3, the distribution is flat relative to the normal.

Jarque-Bera is a test statistic for testing whether the series is normally distributed. The test statistic measures the difference of the skewness and kurtosis of the series with those from the normal distribution. Under the null hypothesis of a normal distribution, the Jarque-Bera statistic is χ^2 distributed as with 2 degrees of freedom.

The reported probability is the probability that a Jarque-Bera statistic exceeds (in absolute value) the observed value under the null hypothesis; a small probability value leads to the rejection of the null hypothesis of a normal distribution. We reject the hypothesis of normal distribution at the 5 percent level of significance but not at the 1 percent level.

The reported observations is the number of non-missing observations for the examining variable in the current sample.

Appendix 3: Legal Form of Business and Other Variables

The KFS survey refers to seven categories of legal form of business.

1. Sole Proprietorship: a type of business ownership in which a business is owned and managed by one individual and no subchapter S-corporation has been established.
2. Limited Liability Company (LLC): A cross between a corporation and a partnership and offering some of the benefits of both. Similar to S-corporations, income produced by a LLC flows through to owners (known as “members”) who pay their own taxes as individuals. Unlike S-corporations, however, LLCs are not subject to as many government restrictions.
3. S-corporation: Corporations in which all profits and losses are passed through to shareholders, just as they are passed through to partners in a partnership.
4. C Corporation: Legal entities separate from their owners that may engage in business, make contracts, own property, pay taxes, and sue and be sued by others.
5. General Partnership: An association of two or more people who co-own a business for the purpose of making a profit and no subchapter S-corporation had been established.
6. Limited Partnership: A partnership in which one or more partners are general partners who manage the business and others are limited partners who invest in the business but forego any right to manage the company.
7. Some Other Form: Other legal forms that are different from the above 6 forms.

The KFS refers to five primary business locations

1. Home or Garage
2. Rented/Leased Space
3. Purchased Space
4. Client Site
5. Other

Five ways of going out of business were identified.

1. Sold to Another Business

2. Merged with Another Business
3. Temporarily Stopped Operations
4. Permanently Out of Business
5. Other

Ten dollar value categories are used in KFS for recording firms' revenue, profit, asset and total wages to avoid revealing KFS firms' sensitive financial information.

1. \$0
2. \$500 or less
3. \$501 to \$1,000
4. \$1,001 to \$3,000
5. \$3,001 to \$5,000
6. \$5,001 to \$10,000
7. \$10,001 to \$25,000
8. \$25,001 to \$100,000
9. \$100,001 to \$1 million
10. \$1,000,001 or more

KFS used two-digit North American Industrial Classification System codes—a publicly used database. For readers' convenience, tabulations in this report are consistent with Survey of Business Owners' NAICS codes listed below:

- | | |
|-------|--|
| 11 | Forestry, fishing and hunting, and agricultural support services |
| 21 | Mining |
| 22 | Utilities |
| 23 | Construction |
| 31-33 | Manufacturing |
| 42 | Wholesale trade |
| 44-45 | Retail trade |
| 48-49 | Transportation & warehousing |
| 51 | Information |
| 52 | Finance & insurance |

53	Real estate & rental & leasing
54	Professional, scientific, and technical services
55	Management of companies and enterprises
56	Administrative & support & waste management & remediation service
61	Educational services
62	Health care & social assistance
71	Arts, entertainment, & recreation
72	Accommodation & food services
81	Other services (except public administration)
92	Public Administration

Appendix 4: Data Tables

Table A1: Cross-tabulation of Firms by Number of Employees and Legal Form, 2004

Number of Employees in a Firm	Firm Number by Legal Form of Business								Number of Employees by Legal Form of Business							
	SP	LLC	S-Corp	C Corp	GP	LP	Others	Sample Firm Total	SP	LLC	S-Corp	C Corp	GP	LP	Others	Employment Total
0	1100	930	456	188	116	40	8	2838	0	0	0	0	0	0	0	0
1	292	163	166	47	9	11	2	690	292	163	166	47	9	11	2	690
2	107	132	108	41	21	8	0	417	214	264	216	82	42	16	0	834
3	38	73	66	37	10	1	0	225	114	219	198	111	30	3	0	675
4	18	55	40	26	5	0	0	144	72	220	160	104	20	0	0	576
5	21	51	36	17	1	1	0	127	105	255	180	85	5	5	0	635
6	5	25	26	12	0	2	0	70	30	150	156	72	0	12	0	420
7	5	20	20	7	0	1	0	53	35	140	140	49	0	7	0	371
8	1	4	18	12	2	3	0	40	8	32	144	96	16	24	0	320
9	0	4	10	0	0	0	0	14	0	36	90	0	0	0	0	126
10	0	12	15	4	0	0	0	31	0	120	150	40	0	0	0	310
11	0	4	6	3	1	0	0	14	0	44	66	33	11	0	0	154
12	1	12	7	4	0	1	0	25	12	144	84	48	0	12	0	300
13	1	1	2	4	0	0	0	8	13	13	26	52	0	0	0	104
14	2	0	5	2	1	1	0	11	28	0	70	28	14	14	0	154
15	4	6	5	8	1	1	0	25	60	90	75	120	15	15	0	375
16	0	3	1	0	0	0	0	4	0	48	16	0	0	0	0	64
17	1	2	1	1	0	0	0	5	17	34	17	17	0	0	0	85
18	0	4	1	1	0	0	0	6	0	72	18	18	0	0	0	108
19	0	0	2	1	0	0	0	3	0	0	38	19	0	0	0	57
20	1	2	1	3	0	0	0	7	20	40	20	60	0	0	0	140
22	0	2	3	2	1	0	1	9	0	44	66	44	22	0	22	198
23	0	0	2	0	0	0	0	2	0	0	46	0	0	0	0	46
25+	0	22	20	9	1	3	0	55	0	550+	500+	225+	25+	75+	0	1375+
Total	1597	1527	1017	429	169	73	11	4823	1020	2678	2642	1350	209	194	24	8117+
Percent	33.1%	31.7%	21.1%	8.9%	3.5%	1.5%	0.2%	100.0%	21.1%	55.5%	54.8%	28.0%	4.3%	4.0%	0.5%	100.0%

* SP–sole proprietorship, LLC–limited liability company, S Corp– S corporation, C Corp–C corporation, GP–general partnership, LP–limited partnership, and Other–some other legal form.

Table A2: Cross-tabulation of Firms in 2004 NAICS Code by 2005 NAICS Code

		NAICS Code 2005																							2004 Total
		11	21	22	23	31	32	33	42	44	45	48	49	51	52	53	54	55	56	61	62	71	72	81	
2004 NAICS Code	11	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	45
	21	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	22	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	23	0	0	0	350	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	353
	31	0	0	0	0	46	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47
	32	0	0	0	1	0	169	1	0	1	1	0	0	1	0	0	3	0	3	0	0	0	0	0	182
	33	0	0	0	2	1	7	614	6	4	3	1	0	1	0	0	6	0	3	0	0	0	0	0	652
	42	0	0	0	2	0	2	0	188	3	2	0	0	0	0	1	0	0	0	0	0	0	0	0	198
	44	0	0	0	0	0	0	2	0	280	2	1	0	0	0	0	0	0	0	0	1	1	1	0	288
	45	0	0	0	1	0	0	2	0	4	184	0	0	1	0	0	1	0	0	2	0	0	0	1	196
	48	1	0	0	0	0	0	0	1	0	0	94	0	0	0	0	0	0	0	0	0	0	0	0	96
	49	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	51	0	0	0	1	0	0	0	0	1	1	0	0	151	0	1	7	0	0	0	0	0	0	1	163
	52	0	0	0	1	0	0	0	0	0	0	0	0	0	147	3	0	0	1	0	0	0	0	0	152
	53	0	0	0	2	0	0	0	0	0	1	0	0	0	3	167	2	0	0	0	0	0	1	0	176
	54	1	0	1	3	1	3	0	2	3	5	0	1	6	2	0	1159	0	5	2	0	2	1	2	1199
	55	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	8	0	0	0	0	0	0	10
	56	1	0	0	2	0	2	2	1	1	0	1	1	0	1	1	7	0	376	0	0	0	0	0	396
	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20
	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	111	0	0	0	114
71	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	106	0	1	110	
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	0	88	
81	0	0	0	3	2	0	1	1	3	1	0	0	1	0	1	3	0	4	0	1	1	0	412	434	
2005 Total	47	5	4	369	50	184	623	199	301	202	97	3	161	154	175	1190	8	395	24	113	110	91	423	4928	

Table A3: Profile of New and Independent Startups, 2004 and 2006

	Assets	Employees	Operational Owners ¹	Profit	Revenue	Total Wages ²	Out of Business ³
2004							
Mean	5.129	1.394	1.383	4.086	3.819	4.495	0.062
Median	6	0	1	5	5	6	0
Maximum	9	25	10	9	9	9	1
Minimum	0	0	1	0	0	0	0
Std. Dev.	2.687	3.213	0.714	2.712	3.321	3.088	0.242
Skewness	-0.732	4.358	2.882	-0.345	-0.042	-0.468	3.620
Kurtosis	2.310	26.577	18.589	1.681	1.287	1.584	14.102
Jarque-Bera	497	117680	52603	180	539	199	33447
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	4561	4470	4570	1949	4396	1653	4570
2006							
Mean	5.978	2.908	1.448	5.234	5.272	5.412	0.066
Median	7	1	1	6	7	7	0
Maximum	9	25	10	9	9	9	1
Minimum	0	0	1	0	0	0	0
Std. Dev.	2.450	5.088	0.844	2.415	3.329	3.089	0.249
Skewness	-1.179	2.875	3.590	-0.834	-0.713	-0.918	3.486
Kurtosis	3.460	11.514	25.209	2.646	1.831	2.222	13.154
Jarque-Bera	757	14016	71618	248	444	315	28888
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	3151	3187	3155	2042	3130	1900	4570

Note: See Appendix 2 for explanation of statistics.

1. Average number of business owners involved in operation but not equity contribution.

2. Nonemployer firms were excluded.

3. Rate of out of business in 2005 and 2006.

Table A4: Performance of Firms that were Not Newly and Independently Created

	Assets	Employees	Operational Owners ¹	Profit	Revenue	Total Wages ²	Out of Business ³
2004							
Mean	6.686	5.346	1.534	4.856	5.325	6.049	0.050
Median	7	2	1	6	7	7	0
Maximum	9	25	7	9	9	9	1
Minimum	0	0	1	0	0	0	0
Std. Dev.	2.319	7.421	0.835	2.752	3.461	2.507	0.219
Skewness	-1.702	1.675	3.041	-0.729	-0.708	-1.435	4.116
Kurtosis	5.241	4.673	17.862	2.195	1.749	4.021	17.942
Jarque-Bera	245	206	3847	15	51	87	4341
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	354	353	358	132	345	226	358
2006							
Mean	6.966	6.273	1.566	5.862	6.124	6.813	0.047
Median	8	3	1	6	8	7	0
Maximum	9	25	7	9	9	9	1
Minimum	0	0	1	0	0	0	0
Std. Dev.	1.963	7.587	0.826	2.213	3.375	2.107	0.213
Skewness	-1.948	1.450	2.454	-1.218	-1.147	-2.218	4.255
Kurtosis	6.893	3.931	12.713	3.905	2.524	7.460	19.109
Jarque-Bera	296	92	1160	41	53	300	4951
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	234	238	235	145	233	182	358

Note: Firms examined here were not newly and independently created by single persons or teams of people rather, they were either purchased existing businesses, franchises or businesses started some other way.

1. Average number of business owners involved in operation but not equity contribution.

2. Nonemployer firms were excluded.

3. Rate of out of business in 2005 and 2006.

Table A5: Cross-tabulation of 2006 Assets and Legal Form of Business

Ten Asset Category	Legal Form of Business*							Total
	SP	LLC	S-Corp	C Corp	GP	LP	Others	
\$0	95	75	30	22	8	5	2	237
\$500 or less	35	16	10	1	2	0	0	64
\$501 to \$1,000	36	13	4	3	3	1	1	61
\$1,001 to \$3,000	108	50	32	4	6	0	1	201
\$3,001 to \$5,000	66	34	24	8	5	3	0	140
\$5,001 to \$10,000	116	87	26	14	6	3	0	252
\$10,001 to \$25,000	186	145	95	18	13	6	1	464
\$25,001 to \$100,000	234	298	216	72	21	7	0	848
\$100,001 to \$1 million	151	324	309	98	28	14	0	924
\$1,000,001 or more	12	81	48	42	3	8	0	194
Total	1039	1123	794	282	95	47	5	3385

* SP—sole proprietorship, LLC—limited liability company, S Corp—S corporation, C Corp—C corporation, GP—general partnership, LP—limited partnership, and Other—some other legal form.

Table A6: Cross-tabulation of 2006 Revenue and Legal Form of Business

Revenue Category	Legal Form of Business*							Total
	SP	LLC	S-Corp	C Corp	GP	LP	Others	
\$0	315	225	143	78	29	14	0	804
\$500 or less	27	9	3	0	2	1	0	42
\$501 to \$1,000	19	12	0	2	1	0	2	36
\$1,001 to \$3,000	58	24	7	3	0	1	0	93
\$3,001 to \$5,000	41	22	7	0	6	0	0	76
\$5,001 to \$10,000	65	43	13	4	3	0	0	128
\$10,001 to \$25,000	123	78	35	12	11	2	1	262
\$25,001 to \$100,000	217	226	125	26	16	5	1	616
\$100,001 to \$1 million	148	387	355	122	21	14	0	1047
\$1,000,001 or more	8	93	107	36	5	10	0	259
Total	1021	1119	795	283	94	47	4	3363

* SP–sole proprietorship, LLC–limited liability company, S Corp– S corporation, C Corp–C corporation, GP–general partnership, LP–limited partnership, and Other–some other legal form.

Table A7: Statistical Profile of Employer vs. Nonemployer Firms in the KFS, 2004-2006

	Employer Firms						Nonemployer Firms			
	Asset	Revenue	Profit	Number of Owners	Number of Employees	Payroll	Asset	Revenue	Profit	Number of Owners
2004										
Mean	6.046	4.713	4.723	1.461	4.089	4.686	4.685	3.385	3.765	1.351
Median	7	6	6	1	2	6	5	3	4	1
Maximum	9	9	9	10	25	9	9	9	9	7
Minimum	0	0	0	1	1	0	0	0	0	1
Skewness	-1.291	-0.436	-0.664	3.140	2.676	-0.565	-0.524	0.122	-0.215	2.424
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	1980	1907	779	1985	1985	1875	2834	2737	1262	2838
2005										
Mean	6.361	5.564	5.415	1.418	4.743	5.309	5.336	4.475	4.497	1.326
Median	7	7	6	1	2	7	6	6	5	1
Maximum	9	9	9	10	25	9	9	9	9	7
Minimum	0	0	0	1	1	0	0	0	0	1
Skewness	-1.509	-0.862	-0.969	2.718	2.287	-0.876	-0.866	-0.455	-0.550	2.355
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	2310	2269	1336	2319	2319	2259	1630	1604	992	1633
2006										
Mean	6.521	5.713	5.643	1.507	5.017	5.576	5.298	4.725	4.669	1.380
Median	7	8	6	1	3	7	6	6	5	1
Maximum	9	9	9	10	25	9	9	9	9	9
Minimum	0	0	0	1	1	0	0	0	0	1
Skewness	-1.606	-0.904	-1.089	3.475	2.146	-1.026	-0.845	-0.571	-0.594	3.369
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	2084	2078	1352	2086	2145	2056	1265	1249	816	1267

Notes: See Appendix 3 for explanation of statistics.

Table A8: Number of Business Owners, 2004 and 2005

Business Asset Category	2005					2006				
	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Percent	Sample Count	Sample Percent	
Single Owner	1197	67.8	1453	71.1	45.2	622	71.4	1660	71.0	27.3
Two Owners	447	25.3	458	22.4	49.4	187	21.5	525	22.4	26.3
Three or More	122	6.9	133	6.5	47.8	62	7.1	154	6.6	28.7
Total Firms	1766	100.0	2044	100.0	46.4	871	100.0	2339	100.0	27.1
Total Owners	2500		2837		46.8	1196		3228		27.0

Table A9: Legal Form of Business, 2004 and 2005

Legal Form of Business	2005 ¹					2006 ²				
	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Percent	Sample Count	Sample Percent	
Sole Proprietorship	514	29.1	731	35.8	41.3	295	33.9	708	30.3	29.4
Limited Liability Company	608	34.4	627	30.7	49.2	270	31.0	792	33.9	25.4
SCorporation	409	23.2	410	20.1	49.9	189	21.7	551	23.6	25.5
C Corporation	138	7.8	172	8.4	44.5	76	8.7	185	7.9	29.1
General Partnership	63	3.6	67	3.3	48.5	31	3.6	62	2.7	33.3
Limited Partnership	32	1.8	31	1.5	50.8	9	1.0	38	1.6	19.1
Some Other Form	2	0.1	6	0.3	25.0	1	0.1	3	0.1	25.0
Total	1766	100.0	2044	100.0	46.4	871	100.0	2339	100.0	27.1

Table A10: Primary Business Location, 2004 and 2005

Primary Business Location	2005 ¹					2006 ²				
	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Percent	Sample Count	Sample Percent	
Home or Garage	894	50.7	1061	52.0	45.7	442	51.0	1161	49.7	27.6
Rented/Leased Space	689	39.0	767	37.6	47.3	325	37.5	920	39.4	26.1
Purchased Space	92	5.2	97	4.8	48.7	46	5.3	135	5.8	25.4
Client Site	69	3.9	94	4.6	42.3	41	4.7	94	4.0	30.4
Other	21	1.2	23	1.1	47.7	13	1.5	24	1.0	35.1
Total	1765	100.0	2042	100.0	46.4	867	100.0	2334	100.0	27.1

Table A11: Number of Business Employees, 2004 and 2005

Number of Employees	2005 ¹					2006 ²				
	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Count	Sample Percent	Sample Count	
0	1054	61.1	1151	57.6	47.8	379	44.2	918	39.7	29.2
1	250	14.5	289	14.5	46.4	174	20.3	414	17.9	29.6
2 to 10	375	21.8	486	24.3	43.6	262	30.6	823	35.5	24.1
11 to 24	36	2.1	47	2.4	43.4	27	3.2	104	4.5	20.6
25 or more	9	0.5	27	1.4	25.0	15	1.8	56	2.4	21.1
Total	1724	100.0	2000	100.0	46.3	857	100.0	2315	100.0	27.0

Table A12: Business Assets, 2004 and 2005

Business Asset Category	2004 ¹					2005 ²				
	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)	Firms with Growing Revenue		Firms with Stable or Contracting Revenue		Share of firms with growing revenue in all firms (percent)
	Sample Count	Sample Percent	Sample Count	Sample Percent		Sample Count	Sample Count	Sample Percent	Sample Count	
No Revenue	168	9.5	213	10.4	44.1	50	5.8	126	5.4	28.4
Some Revenue (\$10,000 or less)	571	32.3	538	26.3	51.5	237	27.3	483	20.7	32.9
\$10,001 to \$100,000	706	40.0	808	39.6	46.6	358	41.2	1006	43.0	26.2
\$100,001 or more	321	18.2	484	23.7	39.9	224	25.8	723	30.9	23.7
Total	1766	100.0	2043	100.0	46.4	869	100.0	2338	100.0	27.1

Table A13: Number of Total Owners and Employees 2004 Startups that were Sold or Merged with another Business in 2005

Count		2004 Number of Total Owners in a Business				
		1	2	3	4	Total
2004 Number of Total Employees in a Business	0	15	5	1	1	22
	1	3	1	1	0	5
	2 - 10	7	4	2	1	4
	11-24	0	0	1	0	2
	25	0	1	0	0	1
	Total	25	11	5	2	43

Table A14: Number of Total Owners and Employees in a 2004 Startup that was out of Business in 2005

Count	2004 Number of Total Owners in a Business							
	1	2	3	4	5	6	Total	
2004 Number of Total Employees in a Business	0	146	39	8	2	1	1	197
	1	35	3	3	0	0	0	41
	2 - 10	32	19	3	4	0	0	58
	11-24	0	0	2	0	0	0	2
	25	0	1	0	0	0	0	1
	Total	213	62	16	6	1	1	299

Table A15: Number of Total Owners and Employees in a Firm that Stayed in Business in 2005

2004 Number of Employees	2004 Number of Total Owners in a Business										Total	%
	1	2	3	4	5	6	7	8	9	10		
0	1769	662	141	48	11	6	3	1	0	0	2641	58.4
1	531	87	17	10	1	1	1	0	1	0	649	14.3
2 - 10	518	363	103	55	9	7	5	3	0	0	1063	23.5
11-24	41	43	21	9	2	1	0	0	0	0	117	2.6
25	15	20	7	2	3	1	1	2	0	3	54	1.2
Total	2874	1175	289	124	26	16	10	6	1	3	4524	100.0
%	63.53	25.97	6.39	2.74	0.57	0.35	0.22	0.13	0.02	0.07	100.00	

Table A16: Primary Business Location and Firms that Went out of or Stayed in Business, 2005

	Firms Out of Business		Firms Stayed in Business	
	Count	Percent	Count	Percent
Residence: Home or Garage	157	58.2	1820	49.0
Rented or Leased Space	90	33.3	1478	39.7
Space the Business Purchased	13	4.8	214	5.8
Site Where a Client Located	8	3.0	161	4.3
Other	2	0.7	44	1.2
Total	270	100.0	3717	100.0

Table A17: Primary Business Location (2005) and Ways of Out of Business (2006)

	Ways of Going Out of Business (2006)					
	Sold to Another Business	Merged with Another Business	Temporarily Stopped Operations	Permanently Out of Business	Other	Total
Residence: Home or Garage	8	3	47	94	5	157
Rented or Leased Space	15	5	13	49	8	90
Space the Business Purchased	5	0	1	7	0	13
Site Where a Client Located	0	0	1	7	0	8
Other	0	0	0	2	0	2
Total	28	8	62	159	13	270

Table A18: Number of Total Owners and Employees of Businesses in Existence in 2005 that Ceased Operations in 2006

	2005 Number of Total Owners in a Business							
	1	2	3	4	5	7	9	Total
0	102	24	9	0	0	1	1	137
1	41	10	1	0	1	0	0	53
2-10	40	16	7	3	1	0	0	67
11-24	1	3	3	1	0	0	0	8
25+	0	1	0	0	0	0	0	1
Total	184	54	20	4	2	1	1	266

Table A19: Number of Total Owners and Employees in Businesses in Existence in 2005 that Stayed in Business in 2006

	2005 Number of Total Owners in a Business										Total	%
	1	2	3	4	5	6	7	8	9	10		
0	1033	322	90	38	7	3	2	1	0	0	1496	40.6
1	543	83	11	6	5	1	2	0	1	0	652	17.7
2-10	678	398	120	54	24	9	2	1	2	2	1290	35.0
11-24	67	47	26	9	2	4	1	1	0	2	159	4.3
25+	28	30	13	7	3	1	2	2	1	2	89	2.4
Total	2349	880	260	114	41	18	9	5	4	6	3686	100.0