An Overview of the Kauffman Firm Survey

Results from 2011 Business Activities

Prepared By:
Alicia Robb
Joseph Farhat

June 2013

The Kauffman Firm Survey
2004 2005 2006 2007 2008 2009 2010 2011

Ewing Marion
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Executive Summary

Although entrepreneurial activity is an important part of a capitalist economy, data about U.S. businesses in their early years of operation have been extremely limited.[1] Only recently has it become apparent what important contributions new and young businesses make to job creation and innovation activities.[2] As part of an effort to understand the dynamics of new businesses in the United States, the Ewing Marion Kauffman Foundation (the Foundation) sponsored the Kauffman Firm Survey (KFS), a panel study of new businesses founded in 2004 that are being tracked annually over their first eight years of operation. Tracking businesses over time allows us to follow business evolutions that would not be apparent in cross-sectional snapshots, the more typical collection method. The KFS dataset provides researchers with a unique opportunity to study a panel of new businesses from startup to sustainability (or exit), with longitudinal data centering on topics such as how businesses are financed; the products, services, and innovations these businesses possess and develop in their early years of existence; and the characteristics of those who own and operate them.

The data collection has been completed, and data are available through calendar year 2011, the eighth year of operations for continuing businesses. Additionally, since our panel came into existence before the most recent recession, following these businesses allows us to get a picture of how young businesses in the United States have recovered or been affected. A series of tables give a broad overview of the 4,928 businesses included in the Kauffman Firm Survey that are nationally representative of startups from 2004. Highlights include:

- Problems. More than credit or falling real estate values, the most challenging problems reported by young businesses continue to be slow or lost sales (36 percent) and unpredictable business conditions (28 percent). Slow or lost sale problems have fallen from 2008 (down by 17 percentage points), while problems with payments from clients have increased from only 2 percent in 2008 to 16 percent in 2011.
- For firms seeking new credit or renewal of existing credit in 2011, nearly 20 percent had their applications always denied, up from 2008, but down from the two prior years. A larger share of those denied indicated credit history played a role in the denials, compared with 2010, while fewer cited tighter restrictions on lending and/or insufficient collateral. In addition, a slightly lower number of respondents than last year indicated that they didn't apply for funding at some point when they needed credit because they feared their application would be denied (18.1 percent versus 19.2 percent).
- By 2011, just over 55 percent of firms in the sample that started in 2004 had permanently closed. The overall survival rate for the 2004 startups was 44.6 percent by the end of 2011, compared with 49.3 percent for yearend 2010.
- A small but significant set of firms reported making investments in research, intellectual property, or future-year operations. More than 44 percent of firms made investments in intangible assets meant to show future-year gain in 2011, compared with just 12 percent of firms investing in research and development (R&D). Intangible asset spending averaged $33,000 in 2011, while average R&D spending was more than $82,000. High-tech firms are much more likely to have patents, copyrights, or trademarks.
- Nearly 20 percent of KFS firms indicated that they introduced some product or service innovation in 2011. Additionally, about 14 percent of firms stated that they introduced a new or significantly improved process in the production of goods or provision of services by their firms in 2011. Finally, nearly 60 percent of

1. http://www.nap.edu/catalog/11844.html.

2. A separate series of articles from the Kauffman Foundation explores some of these concepts in more depth. http://www.kauffman.org/research-and-policy/firm-formation-and-economic-growth-research-series.aspx.

firms indicated that they introduced a product or service that was new to one of their markets.

- While about 40 percent of firms had employees in 2004, by 2011 about 53 percent of surviving firms had employees. Surviving firms with employees, which are now in their eighth year of operations, increased average employment to 8.7 employees in 2011, up from 7.5 employees in 2010.
- In 2011, about 45 percent of firms had revenues greater than $100,000, and 13 percent had revenues of more than a million dollars.

Further analysis is available in papers that are posted to the KFS section of the Ewing Marion Kauffman Foundation website as they are completed (http://www.kauffman.org/kfs/).

Overview

The Kauffman Firm Survey (KFS) is the largest, longest longitudinal survey of new businesses in the world. At the end of the project, the KFS will contain data over the 2004–2011 period on 4,928 firms that began operations in 2004. This latest report focuses on data collected in the firms' eighth year of existence (calendar year 2011).[3] The study created the panel by using a random sample from the Dun & Bradstreet (D&B) database list of new businesses started in 2004.

The KFS sought to create a panel that included new businesses created by a person or team of people, purchases of existing businesses by a new ownership team, and purchases of franchises. A series of questions was asked about indicators of business activity and whether these were conducted for the first time in the reference year (2004). These indicators included: 1) Payment of state unemployment (UI) taxes, 2) Payment of Federal Insurance Contributions Act (FICA) taxes, 3) Presence of a legal status for the business, 4) Use of an Employer Identification Number (EIN), and 5) Use of Schedule C to report business income on a personal tax return. To be "eligible" for the KFS, at least one of these activities had to have been performed in 2004 and none performed in a prior year. The questionnaire covered a variety of topics, including business characteristics, strategy and innovation, business structure and benefits, financing, and demographics of the principals. The final KFS data file contains data on the baseline (calendar year 2004) and seven follow-up years (2005–2011).

The Kauffman Firm Survey is a research data set accessible to scholars around the globe. The public-use microdata file for the Kauffman Firm Survey is available at http://www.kauffman.org/kfs/. The University of Chicago NORC Data Enclave provides secure remote access to a confidential version of the KFS microdata file, which contains more detail regarding industry codes, geographical codes (ZIP code, metropolitan statistical area, and state), and many additional continuous variables (in addition to categorical variables). Details on applying to the NORC enclave can be found on the KFS website: http://www.kauffman.org/kfs.

While 2004 was an average year in many respects, these new firms faced an economic crisis in their early years of operation that was anything but average. This crisis began in 2008 and continued to affect the firms in the KFS survey. When asked about the most challenging problem they faced, the most cited problem continued to be slow or lost sales, followed by the unpredictability of business conditions (Table 1). The percentage of firms citing customers or clients not making payments or paying late continued to rise, up to 16 percent in 2011, compared with just 2 percent in 2008. Credit access and the terms or cost of credit continued to be cited as the most challenging problem by only a small percentage of firms.

Yet, when asked to report if they applied for and obtained loans or lines of credit and the reasons why these applications were not filed or were denied, access to credit still seems to be an issue for many firms (Table 2). In 2011, most firms (89.5 percent) did not apply for new loans or for the renewal of existing lines of credit, an increase from about 87 percent in 2008. For the 11 percent of firms that applied for borrowing, 68 percent report always being approved for new financing, while 12 percent were sometimes approved and

3. Previous reports can be found at http://www.kauffman.org/research-and-policy/kauffman-firm-survey.aspx.

Table 1: Most-Challenging Problems Facing Businesses

	2008	2009	2010	2011
Slow or lost sales	53.0%	44.1%	43.8%	35.9%
The unpredictability of business conditions	24.0%	21.6%	23.7%	28.2%
Customers or clients not making payments or paying late	2.0%	12.8%	14.1%	16.0%
Other	10.0%	7.8%	7.6%	8.1%
Falling real estate values	5.0%	6.9%	5.7%	5.8%
An inability to obtain credit	4.0%	4.8%	4.4%	4.4%
The cost and/or terms of credit	2.0%	2.1%	0.8%	1.5%

Source: KFS Microdata

Table 2: Financing Experiences (2008–2011)

	2008	2009	2010	2011
Applied for new bank credit or renewed lines of credit	12.6%	12.3%	11.1%	10.5%
Loan application(s) outcome(s)				
Always approved	67.6%	60.3%	60.7%	68.4%
Sometimes approved, sometimes denied	17.5%	16.7%	16.0%	12.1%
Always denied	14.9%	22.9%	23.3%	19.4%
Reason(s) for denial				
Banks putting tighter restrictions on lending	n/a	89.5%	91.0%	75.8%
Insufficient collateral	42.2%	42.1%	39.3%	28.5%
Business credit history	33.3%	35.0%	28.5%	40.8%
Personal credit history	45.0%	44.3%	37.4%	43.3%
Loan too large	28.0%	16.6%	16.7%	22.9%
Inadequate documentation	15.6%	5.3%	3.8%	2.7%
Business too new	15.7%	14.2%	7.4%	12.0%
Other	14.7%	3.4%	4.2%	5.3%
Loan requiring collateral	n/a	15.6%	14.9%	13.5%
Accounts receivable	n/a	39.7%	47.5%	44.3%
Vehicle/equipment	n/a	35.6%	49.9%	49.2%
Security deposit	n/a	19.0%	17.2%	19.3%
Intellectual property	n/a	3.0%	3.0%	1.6%
Business real estate	n/a	20.0%	23.0%	25.2%
Personal real estate	n/a	42.7%	31.6%	25.8%
Other personal assets	n/a	17.4%	21.9%	16.2%
Other	n/a	5.4%	1.6%	1.3%
Did not apply for debt financing when needed for fear of denial	17.6%	21.3%	19.2%	18.1%

Source: KFS Microdata

19 percent were denied. Of the firms that faced denied applications, 76 percent reported being denied because of banks putting tighter restrictions on their lending, and nearly 30 percent report being denied for not having sufficient collateral. Credit history was cited often as a reason to deny credit, with business credit history being an issue in 41 percent of the cases and personal credit history cited in 43 percent of the cases. About 18 percent of the firms did not apply for credit at some point when they needed it in 2011 because they thought that their application would be denied.

Only 43 percent of firms made new investments in their businesses from debt financing in 2011, down from 53 percent in 2008. Less than one-quarter of firms made new equity investments in 2011, which was similar to 2009 and 2010 and a down from 2008. Less than 6 percent of firms invested more than $25,000 in equity capital in 2011, which was down from previous years.

Table 3: New Financial Injections

	2008		2009		2010		2011	
	Debt	Equity	Debt	Equity	Debt	Equity	Debt	Equity
None	47%	66%	50%	74%	54%	74%	57.3%	75.5%
$5,000 or less	14%	13%	14%	8%	13%	10%	12.4%	10.2%
$5,001 to $25,000	16%	12%	16%	11%	14%	10%	12.7%	8.7%
$25,001 to $100,000	14%	7%	13%	5%	11%	5%	9.8%	4.0%
$100,001 or more	10%	2%	8%	2%	7%	2%	7.8%	1.6%

Source: KFS Microdata

High-tech firms are identified using six-digit 2010 NAICS industry codes that have science- and engineering-intensive occupations, whose shares of employment in those occupations were three times the national average, or industries that exceeded the U.S. average for both research and development expenditures per employee and for the proportion of full-time-equivalent R&D scientists and engineers in the industry workforce. High-tech firms were more likely than non-high-tech firms to state that they had a comparative advantage in the products and/or services they offered. They also were much more likely to state that their comparative advantage came from partnering with another company, university, or government lab. They were about three times as likely to state that having patents was a source of comparative advantage. The holding of patents, copyrights, and trademarks is highly concentrated among high-tech sector firms. These firms are much more likely to have patents, copyrights, or trademarks.

Table 4: Comparative Advantage and Intellectual Property in 2011

	All	High-Tech	Not High-Tech
Comparative Advantage	44.9%	54.6%	39.6%
Sources of Comparative Advantage			
University Partnership	7.3%	11.4%	7.0%
Company Partnership	27.3%	33.5%	26.7%
Gov't Lab Partnership	2.9%	5.5%	2.7%
Patents	6.8%	18.4%	5.7%
Have Patents	2.60%	8.78%	2.17%
Have Copyrights	7.4%	16.05%	6.83%
Have Trademarks	13.7%	20.11%	13.28%

Source: KFS Microdata

Nearly half of firms (44.4 percent) had new spending on intangible assets in 2011. These are expenditures expected to produce long-term benefits for businesses, such as brand development and worker training. Only about 12 percent of firms invested in research and development (R&D) in 2011; however, investments were higher in R&D. R&D investment averaged about $82,000, compared with just $33,000 on intangible assets.

Table 5: Spending on Research & Development and Intangible Assets

Firms with R&D Spending	12.0%
Amount of R&D Spending	$82,382
Firms with Intangible Asset Spending	44.4%
Amount of Intangible Asset Spending	$33,387
Intangible Asset Spending in 2011	
$500 or less	13.4%
$501–$5,000	34.6%
$5,001–$25,000	27.9%
$25,001–$100,000	16.3%
$100,001 or more	7.7%
Total	100.0%

Source: KFS Microdata

Product, Service, and Process Innovations

Product or service innovations are new products or services or a significantly improved product or service introduced by a business. Nearly 20 percent of KFS firms indicated that they introduced some product or service innovation in 2011. Additionally, about 14 percent of firms stated that they introduced a new or significantly improved process in the production of goods or provision of services by their firms in 2011. Finally, nearly 60 percent of firms indicated that they introduced a product or service that was new to one of their markets. Interestingly, while most of the markets were regional or national, more than one-third of those firms indicated that they introduced a product or service to the international market.

In terms of the customer base, most KFS firms sold to individuals (53 percent of sales) and other businesses (40 percent of sales), while only about 6.4 percent of sales went to government customers. Less than 20 percent of firms had a predominantly national customer base, while about two-thirds of firms sold to customers in the same city, county, or state. Only about 11 percent had a neighborhood base as their primary customer location, and just 3.4 percent were predominantly international.

Table 6: Selected Firm Characteristics in 2011

Introduction of products or services that were new or significantly improved	**18.5%**
Introduction of processes that were new or significantly improved	**13.7%**
Introduction of any product/service that was new to any market(s) where firm competes	**57.9%**
Regional	70.5%
National	56.1%
International	34.4%
Main type of customer(s)	
Individual	53.1%
Businesses	40.1%
Government	6.4%
Where most of the firms' customers are located	
In neighborhoods local to the business	11.4%
In the same city or county	31.6%
In the same region, such as in nearby counties or states	33.9%
Nationwide	19.6%
International	3.4%
Firms with international sales	
Less than 5%	53.4%
5%–25%	27.6%
26%–50%	9.6%
51%–75%	4.2%
76%–100%	5.3%
Firms with Internet sales	
Less than 5%	30.9%
5%–25%	30.2%
26%–50%	11.9%
51%–75%	10.3%
76%–100%	16.8%
Firm website	**49.7%**
Firm email	**97.9%**

Source: KFS Microdata

About 15 percent of firms indicated that they had international sales. However, more than half stated that those sales made up less than 5 percent of their total revenues. About 9.5 percent of firms indicated that international sales made up half or more of their annual revenues.

More than a quarter of firms sold their goods or services over the Internet. However, nearly one-third of those indicated that Internet sales made up less than 5 percent of their total sales. Yet, about one-quarter of the firms indicated that Internet sales made up at least half of their annual revenues. By 2011, nearly all (97.9 percent) of firms had an email account, while nearly half (49.7 percent) had a website. The Internet has clearly touched on the vast majority of firms.

While only about 40 percent of firms had employees other than the firm owner(s) in 2004, by 2011, 52.6 percent of firms had employees. Overall, firms averaged less than five employees, but for firms with employees, the number averaged 8.7, compared with just 4.6 employees in 2004. Thus, surviving firms grew substantially over the period 2004–2011.

Table 7
Employment by KFS Firms

	All Firms	Surviving Firms
	2004	2011
Firms with employees	40.9%	52.6%
Average employment	1.9	4.6
Average employment (employers only)	4.6	8.7
Distribution of employment		
0	59.2%	47.4%
1	14.0%	12.7%
2	9.1%	9.1%
3	4.6%	5.6%
4	3.1%	5.0%
5–9	6.0%	10.8%
10–49	4.0%	8.0%
50+	0.2%	1.5%

Source: KFS Microdata

In terms of revenues, quite a few of these businesses remain small by any conceivable measure. About 20 percent still have sales of $5,000 or less, and about a quarter have assets in that range; however, many of the firms have grown to be quite large. About 13 percent of firms have revenues of a million dollars or more, and nearly one-third of firms have revenues of between $100,000 and $1,000,000.

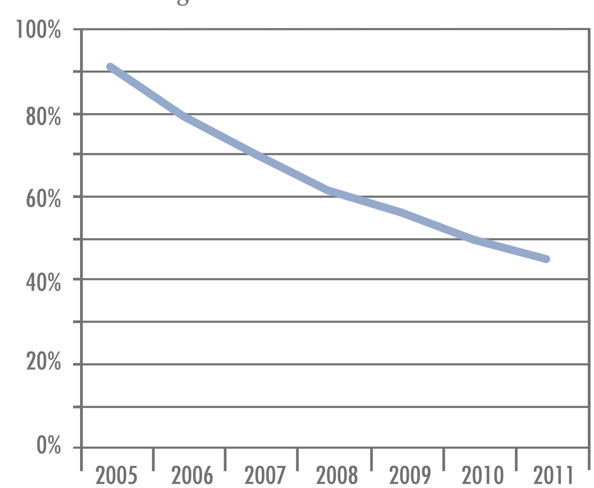
Table 8
Distribution of Revenues and Assets in 2011

	Revenues	Assets
Zero	9.7%	8.5%
$5,000 or less	9.3%	14.2%
$5,001–$25,000	12.5%	20.9%
$25,001–$100,000	23.7%	23.2%
$100,001–$1 million	31.6%	26.7%
More than $1 million	13.2%	6.6%
Total	**100.0%**	**100.0%**

Source: KFS Microdata

By 2011, slightly more than 55 percent of firms in the KFS had permanently closed down operations. By yearend 2011, 44.6 percent of firms had survived, which is comparable to survival rates noted by the Small Business Administration and other government agencies.[4]

Figure 1: Firm Survival 2005–2011



Source: KFS Microdata

4. http://www.sba.gov/sites/default/files/files/sbfaq.pdf.

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AN OVERVIEW OF THE KAUFFMAN FIRM SURVEY: RESULTS FROM 2011 BUSINESS ACTIVITIES

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