

Casting a Wide Net:

Online Activities of Businesses in the United States

Alicia Robb, Kauffman Foundation (and E.J. Reedy)

Comparative Analysis of Enterprise Data

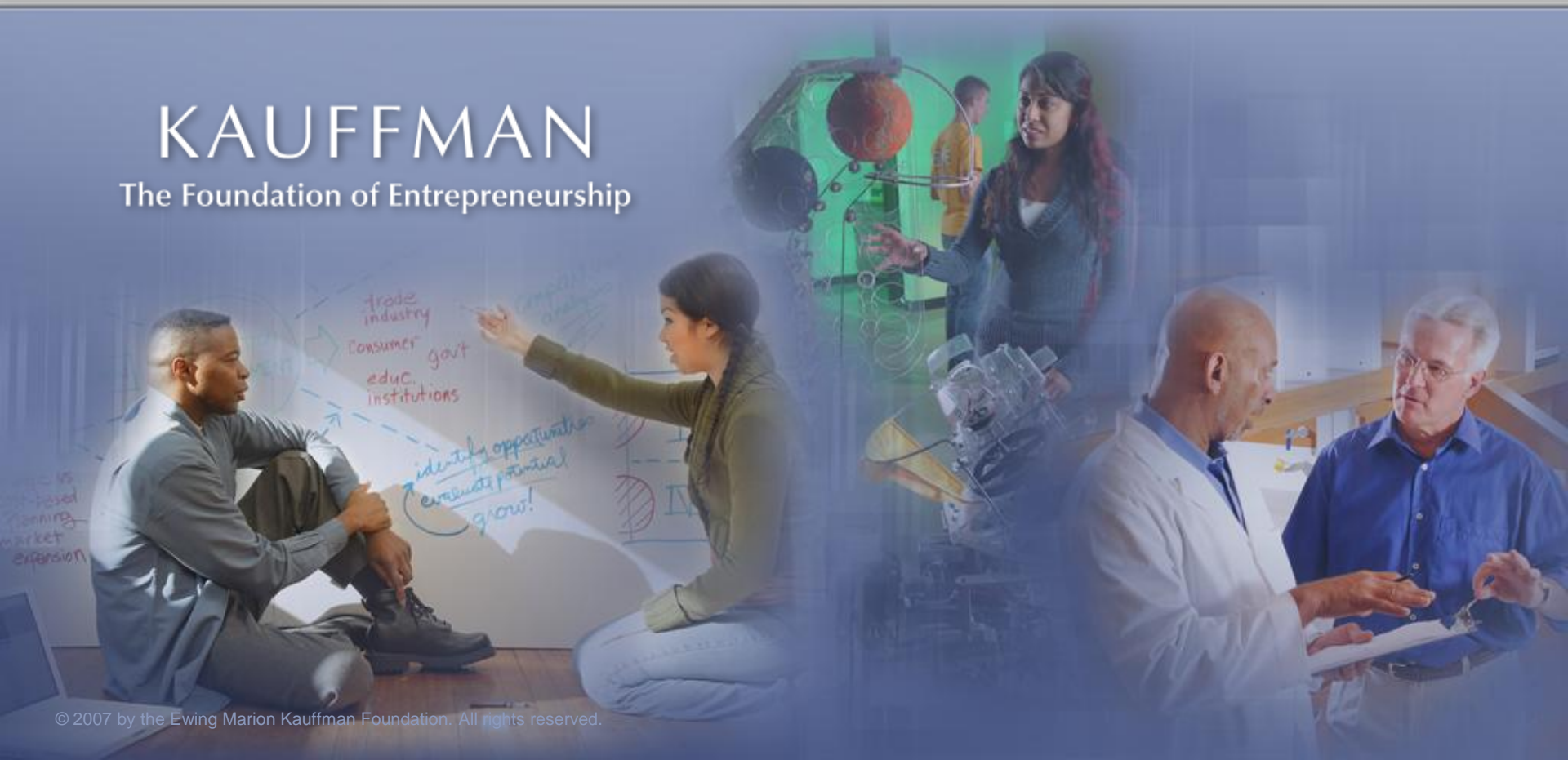
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“Every individual that we can inspire, that we can guide, that we can help to start a new company, is vital to the future of our economic welfare.”

— Ewing Kauffman

KAUFFMAN

The Foundation of Entrepreneurship



Online activities of firms

- How important is the internet for firms?
 - Does this vary by size?
 - Age?
 - Industry?
 - Firm location?
 - Owner characteristics?
- Is the use of the internet related to firm outcomes?
 - Employment growth
 - Sales
 - Profits
 - Innovation
 - Survival

The Internet has certainly changed the way some firms do business

■ Sales

- For many small businesses, the Internet offers the potential of much wider customer access than traditionally available in their local communities.

■ Marketing

- Businesses can market themselves more openly and directly with current and potential customers through websites.

■ Communication

- Email communications offer additional means of contacting individuals/businesses.

Goals of this paper

(Currently very preliminary and descriptive)

- We explore data available on small business' use of Internet in the United States.
- We use new microdata from Kauffman Firm Survey and summary tables from the Survey of Business Owners to compare young vs. small firms use of the internet.
- We have some early findings on differential impacts of different Internet activities on other business activities like employment, revenues, and survival.

E-commerce as Percentage of U.S. Shipments, Sales, & Revenues

	Manufacturing Shipments	Wholesale Trade Sales	Retail Trade Sales	Selected Service Revenues
2009	42.0	23.4	4.0	2.3
2008	39.7	21.3	3.6	2.2
2007	35.2	22.0	3.4	1.9
2006	31.2	22.1	3.0	1.7
2005	28.3	22.3	2.5	1.6
2004	23.1	21.0	2.1	1.5

Annual Census Surveys

E-Commerce growing quickly in most industries

Table 5

Growth Rates (2004-2009)

	E-Commerce Sales	Total Sales
Manufacturing Shipments	87.0%	3.0%
Wholesale Trade	18.6%	6.5%
Retail Trade	95.8%	4.5%
Selected Services	86.4%	21.7%

Source: U.S. Census Bureau, 2009 Annual Survey of Manufactures, 2007 Economic Census - Manufacturing, 2009 Annual Wholesale Trade Survey, 2009 Annual Retail Trade Survey, and 2009 Service Annual Survey

Kauffman Firm Survey (KFS)

The KFS is a longitudinal survey of nearly 5,000 new firms in the United States that began operations in 2004 and tracked annually over the 2004-2011 period. Firms come from all industries and across the United States

Kauffman undertook the KFS to better understand:

- New firm dynamics
- High-tech firms
- Firm innovation
- Firm financing
- Entrepreneurs (owners of high growth firms)

Detailed Data: Baseline & Over Time

- Firm characteristics: Industry, Legal Form, # of Owners, # of Employees (PT/FT), Types of Customers, Location
- Internet activities: Website, Email, Internet Sales
- Firm strategy and innovation: Product/Service Offerings, Intellectual Property, Licensing In and Licensing Out, R&D
- Detailed financial information: Equity & Debt Financing, Income Statement Info (Revenue, Expenses, Profits), Balance Sheet Info (Assets, Liabilities, Equity)
- Employees: Types of Benefits Offered, Task/Work Structure
- Owner characteristics and work behaviors (up to 10 owners):
Education, Age, Race, Ethnicity, Gender, Citizenship, Immigrant Status, Hours Worked, Previous Years of Work Experience, Previous Start-up Experience (same/different industry as this firm)

Census Data on Internet Activities: Increasing in Firm Size---Small firms still unlikely users

Prevalence of Internet Activities by Employment Size: 2007

	Website	Internet Sales
All Employer Firms	40.5%	7.3%
1 to 4 employees	31.4%	5.9%
5 to 9 employees	43.7%	7.5%
10 to 19 employees	53.5%	8.8%
20 to 49 employees	64.8%	10.9%
50 to 99 employees	75.1%	13.9%
100 to 499 employees	81.4%	15.5%
500+ employees	89.7%	20.9%

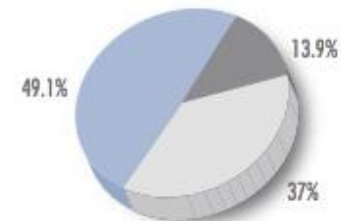
Source: Employer firms only. Survey of Business Owners, 2007.

Census data also show young firms using internet more than older firms, and that young firms selling more intensively online

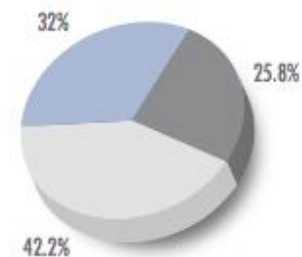
- More than one quarter of young businesses selling online earn more than half of their revenues from online sales, compared with just 14% of all firms that sell online
- Nearly half of firms with any internet sales earn less than 5% of their revenues from online sales, compared with less than one third of young firms.

Figure 7
Internet Sales as a Percentage of Total Sales*

All Firms Selling Online, 2007



Young Firms Selling Online, 2007



Kauffman Foundation

■ Online sales less than 5% revenues ■ Online sales 5%–50%
■ Online sales 51%–100%*

*SBO category breaks at 5%–49% and 50%–100%

Source: Employee Firms Only, Survey of Business Owners, 2007;
Kauffman Firm Survey microdata, 2007

KFS also shows that young firms adopting at much higher rates (even though most are small)

Note:

2007 SBO data:

All firms:

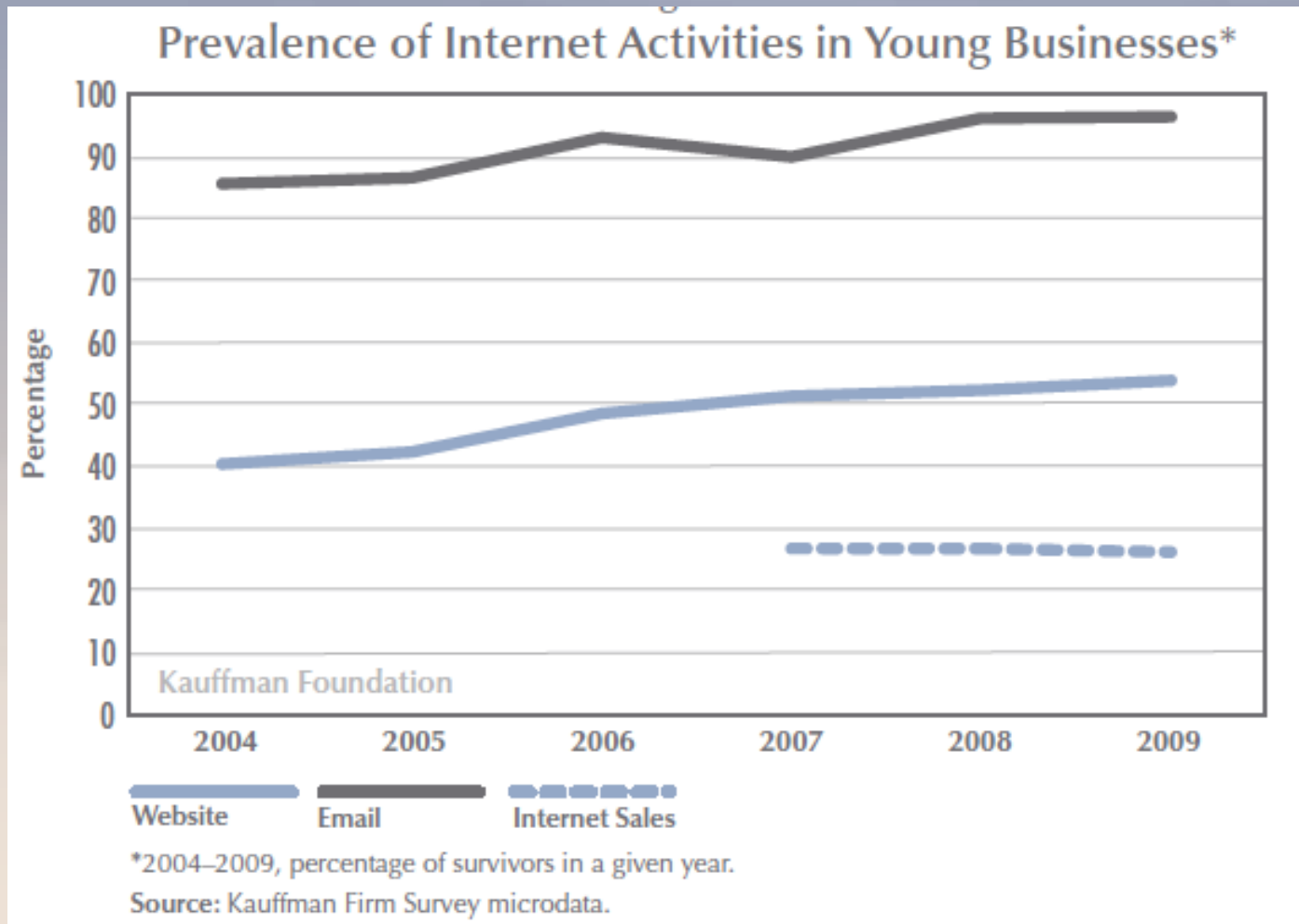
25% website

6% internet sales

Employer firms:

40% website

7% internet sales



Internet Activities Differ by Industry

Prevalence of Internet Activities in Young Businesses by Industry

	Website	Email	Internet Sales*
All Firms	40.5%	86.0%	35.0%
High-Tech Industries	65.7%	95.9%	32.7%
Manufacturing	59.8%	88.5%	50.5%
Wholesale Trade	54.5%	89.1%	55.7%
Professional, Management, Educ. Services	48.3%	91.8%	29.7%
Retail Trade	46.0%	85.2%	51.6%
Finance, Insurance, and Real Estate	44.0%	91.2%	33.7%
Arts, Entertainment, Rec.	42.9%	84.3%	48.3%
Admin. and Support, Waste, Remed. Services, Health Care, Social Assistance	33.0%	88.3%	25.7%
All Other Industries	28.8%	78.0%	28.6%
Transportation/Warehousing	23.7%	83.3%	40.6%
Construction	21.3%	74.3%	17.8%
n	4,099	4,099	2,724

*Firms that had Internet sales in any of the years 2007–2009 and only those that survived until at least 2007. Website and email from 2004.

Source: Kauffman Firm Survey microdata.

Online activities differ by firm characteristics:

	Website	Email	Internet Sales*
Firm Characteristics			
Incorporated	45.3%	88.7%	34.4%
Sole Proprietorship or Partnership	33.8%	82.2%	35.7%
Employer Firm	46.3%	88.3%	37.2%
Nonemployer Firm	36.9%	84.6%	33.6%
Home-based	36.4%	86.3%	31.9%
Not Home-based	44.5%	85.7%	38.0%
High Credit Score	45.9%	90.2%	32.5%
Med/Low Credit Score	39.8%	85.4%	35.4%
High-Tech Industry	65.7%	95.9%	32.7%
Urban Location	42.8%	87.4%	35.8%
Rural Location	28.7%	79.1%	30.5%
Individuals are 50%+ of Sales	38.1%	84.3%	35.2%
Businesses are 50%+ of Sales	42.8%	88.8%	33.3%
Government is 50%+ of Sales	39.1%	88.9%	30.0%
Multi-Owner Firms	45.2%	88.8%	36.9%
Single-Owner Firms	38.0%	84.5%	33.9%

Likelihood of Having Internet Sales (2007-2009)	
VARIABLES	Any Internet Sales in 2007-2009
Previous Startup Exp.	0.428*** (0.116)
Hours worked (week)	0.0112*** (0.00251)
Firm Email	0.652*** (0.200)
Homebased	0.210* (0.126)
Urban	0.330** (0.155)
Employer Firm	-0.00611 (0.120)
Construction	-0.631** (0.284)
Manufacturing	0.868*** (0.256)
Wholesale Trade	1.047*** (0.295)
Retail Trade	0.794*** (0.222)
Transportation/Warehousing	0.329 (0.397)
Finance, Insurance, and Real Estate	0.0101 (0.225)
Professional, Management, Educ. Services	-0.118 (0.203)
Admin & Support, Waste, Remed. Services, Health Care, Social Assistance	-0.238 (0.244)
Arts, Entertainment, Rec.	0.799** (0.310)
Constant	-2.328*** (0.376)

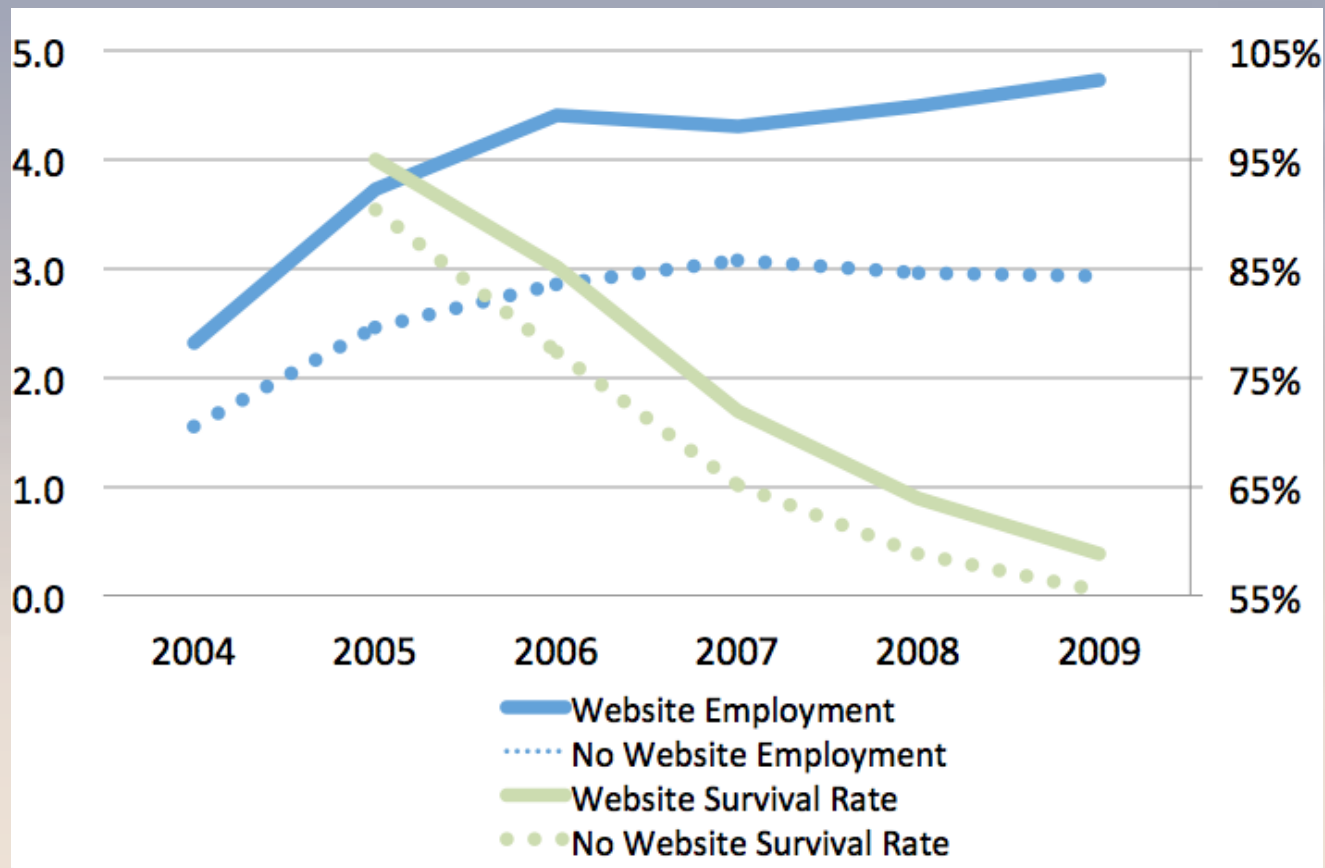
Firms with Internet activities have higher growth expectations

Table 13

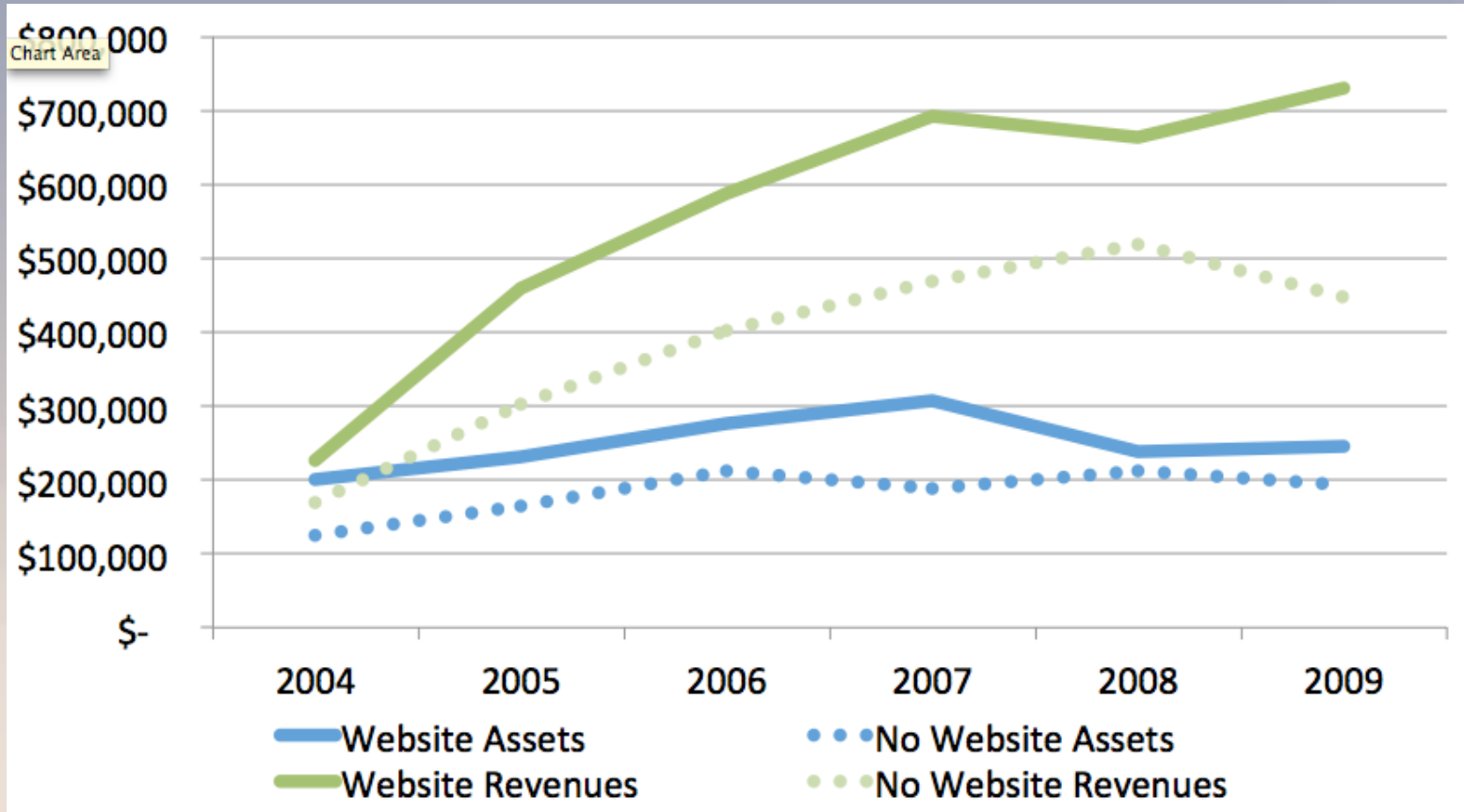
Growth Expectations (surviving through 2008)

	Firm Has Website		Firm Has Email		Firm Has Internet Sales* (in 2007, 2008, and/or 2009)	
	Yes	No	Yes	No	Yes	No
Met/Exceeded Growth Expectations for 2004-2008	45.6%	47.1%	46.2%	51.2%	43.5%	47.8%
→ High Growth Expectations for 2008-2011 (30+%)	27.6%	15.5%	22.1%	12.8%	25.2%	20.1%
"Optimistic Outlook"	32.6%	34.7%	33.7%	31.5%	34.0%	33.3%
n	1,340	1,069	2,341	68	934	1,790
* Only those that survived until at least 2007						
Source: KFS microdata						

And better outcomes: Employment and Survival Rates by Presence of Website



Assets and Revenues by Presence of Website



Next Steps:

Clearly early stage research, mainly descriptive

What next?

- 2010 data now available (2011 available next year)
- Relationship of different online activities & performance outcomes:
 - Innovation
 - Employment Growth
 - Survival
 - Profits
 - Sales
- Other thoughts/ideas?

Thank you!

Alicia Robb

arobb@kauffman.org

E.J. Reedy

ereedy@kauffman.org