

Anatomy of Trademarking by Firms in the United States

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Disclaimer: Any opinions and conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.

Contribution & Motivation

- Motivation

- ▶ Innovation has many dimensions
- ▶ Trademarks as a measure of innovative activity

- Contribution

- ▶ New data infrastructure and linkages
- ▶ First comprehensive look at firm-level trademarking activity in the U.S.

Findings

- Typical trademarking firm → larger, older
- First-time trademarkers → smaller, younger
- Industry composition shifting
- Surge of young first-time trademarking activity in the late 1990s
- Trademarking associated with growth, particularly in small, young firms

What is a trademark?

- Law:

- ▶ Evidence of ownership
- ▶ National exclusive right of use mark
- ▶ Access to federal courts in case of infringement
- ▶ Customs registration to block infringing imports

- Economics:

- ▶ Reducing consumer search and switching costs
- ▶ Lower cost of marketing new products
- ▶ Capture goodwill, generate brand awareness and loyalty



- USPTO Casefile Database
 - ▶ Tracks filing, prosecution, publishing, registration and transfer of marks (Graham, Hancock, Marco, and Myers, 2013)
- US Census Bureau's Firm data
 - ▶ Business Register & Longitudinal Business Database
 - ▶ Integrated Longitudinal Business Database

Trademarks Frame

Frame Counts	Trademarks (000)	Owner Records (000)
Owner File	7, 214	17, 381
Excluding pre 1976	6, 907	16, 937
Excluding Foreign	5, 939	14, 406
Excluding Federal/ State, Individuals	5, 048	12, 289

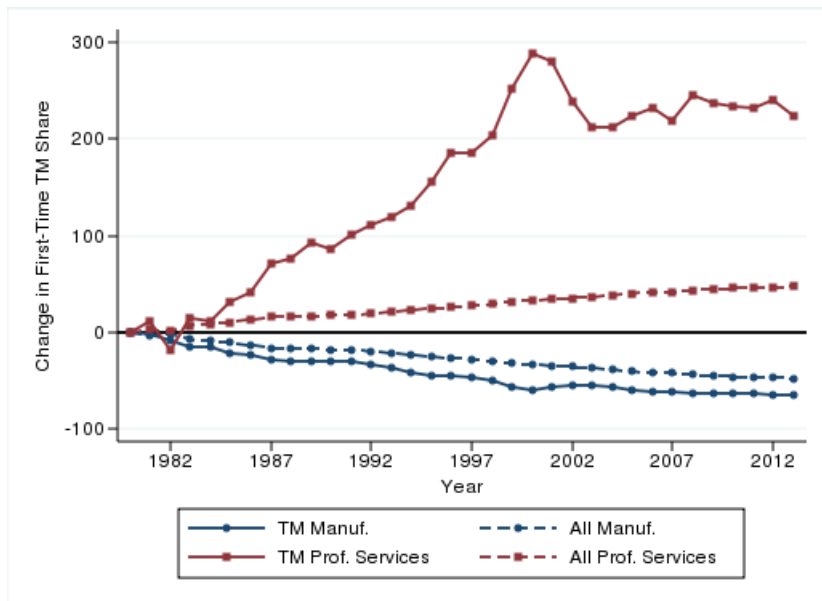
Match Results

Match Frame	Trademarks		Owner Records	
	Count (000)	Pct	Count (000)	Pct
BR/LBD	3,736	74.0	9,163	74.6
ILBD	99	2.0	223	1.8
Unmatched	1,213	24.0	2,903	23.6
Total	5,047	100.0	12,289	100.0

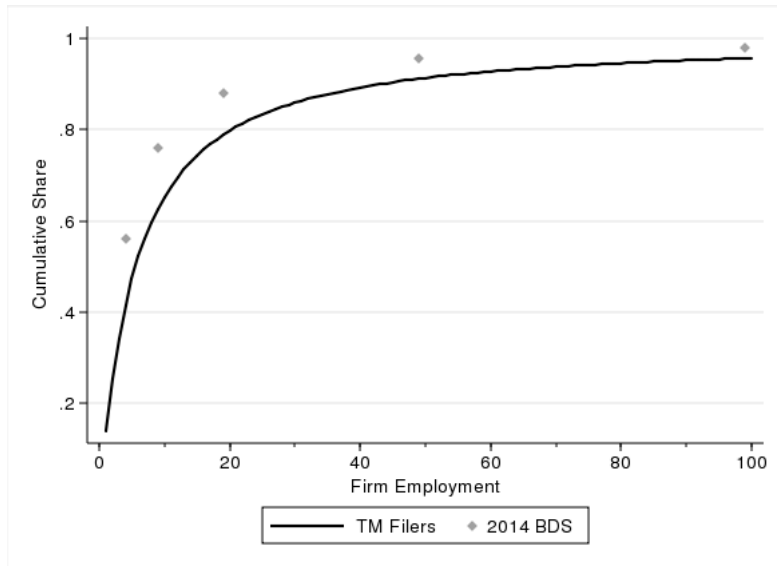
Trademarking Firms

Year	Matched TMs	Firms filing a TM	Firms filing for the first time
1977	5,761	3,375	3,380
1982	10,992	6,290	4,580
1987	11,923	7,250	4,780
1992	19,607	10,550	6,200
1997	39,337	18,160	10,360
2002	42,094	19,710	10,350
2007	60,017	27,170	14,600
2012	62,814	29,470	15,150

Trademarking by Industry



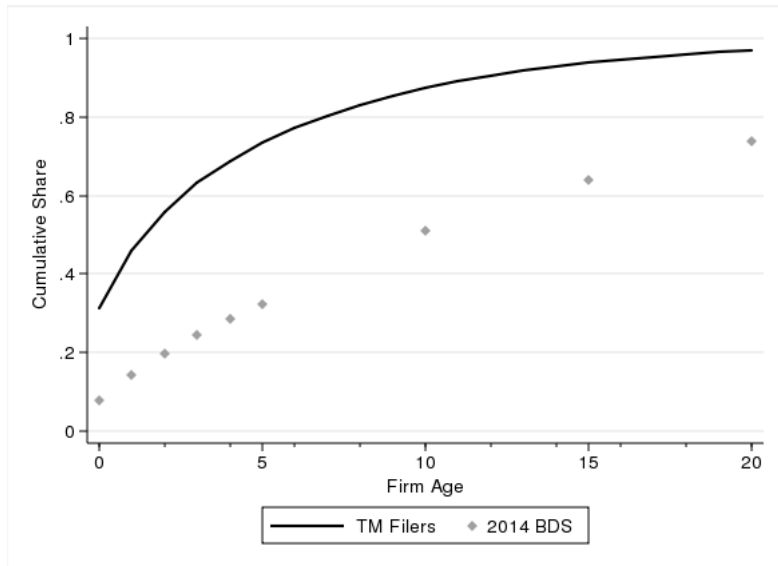
Trademarking by Firm Size



Trademarking by Firm Size

	First time:	
	Filing	Registration
0-5 emp.	-2.870*** [0.013]	-3.074*** [0.013]
5-9 emp.	-2.336*** [0.014]	-2.470*** [0.014]
10-19 emp.	-2.020*** [0.014]	-2.100*** [0.014]
20-49 emp.	-1.661*** [0.014]	-1.685*** [0.014]
50-99 emp.	-1.362*** [0.015]	-1.346*** [0.016]
100-499 emp.	(D)	(D)
Controls: Age Groups	Yes	Yes
Industry-Year FE:	Yes	Yes
<i>N</i>	> 100M	> 100M

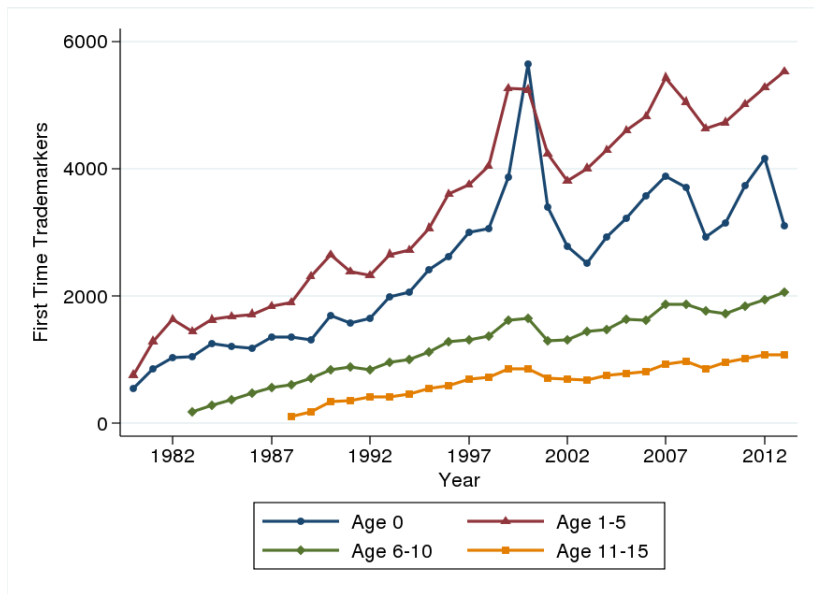
Trademarking by Firm Age



Trademarking by Firm Age

	First time:	
	Filing	Registration
0-2 years	1.883*** [0.010]	1.705*** [0.011]
3-4 years	1.171*** [0.011]	1.294*** [0.012]
5-9 years	0.848*** [0.011]	0.904*** [0.011]
9-14 years	0.506*** [0.012]	0.519*** [0.013]
15-19 years	0.281*** [0.013]	0.294*** [0.016]
20-24 years	(D)	(D)
Controls: Size Groups	Yes	Yes
Industry-Year FE:	Yes	Yes
<i>N</i>	> 100 <i>M</i>	> 100 <i>M</i>

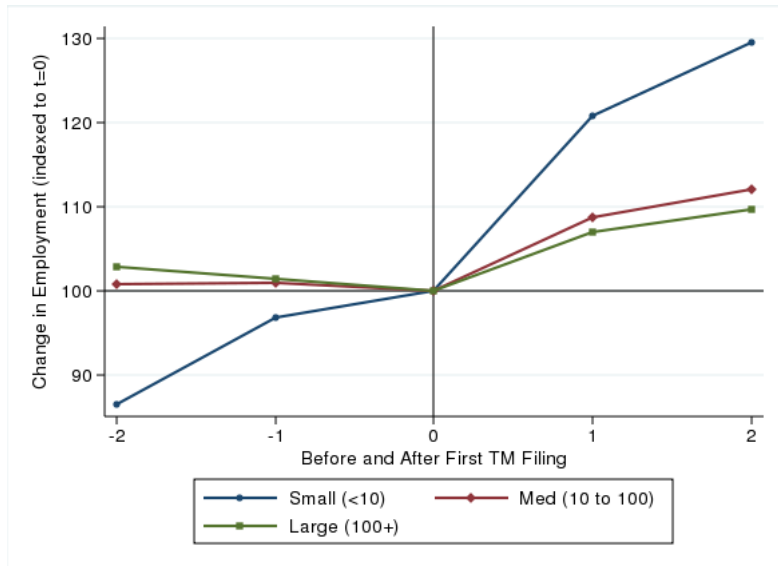
Trademarking by Firm Age



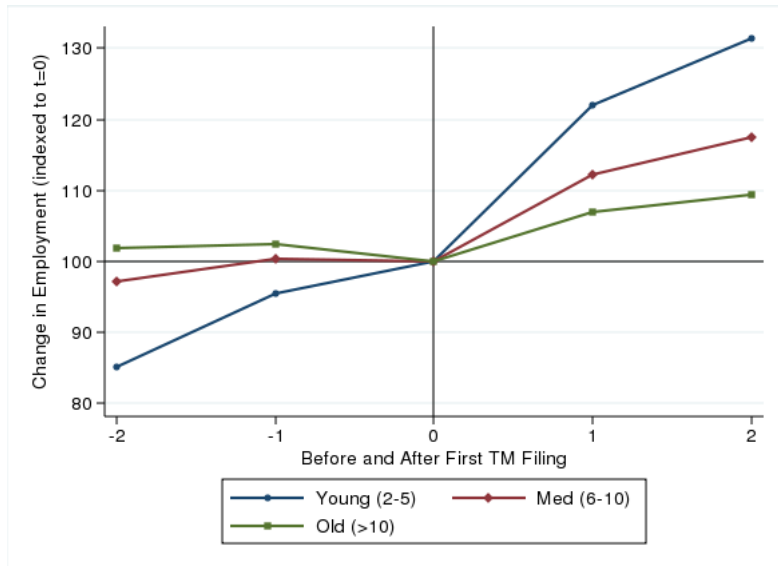
Trademarking and Growth

	Firm Growth Measure	
	Employment Growth	Revenue Growth
<i>Pre-Filing</i>	0.093*** [0.002]	0.099*** [0.002]
<i>Post-Filing</i>	0.053*** [0.002]	0.023*** [0.001]
<i>Pre-Registration</i>	0.061*** [0.002]	0.068*** [0.002]
<i>Post-Registration</i>	0.006*** [0.001]	0.013*** [0.001]
Controls: Age, Size	Yes	Yes
Industry FE:	Yes	Yes
Year FE:	Yes	Yes
<i>N</i>	> 100M	> 100M

Trademarking, Growth, and Size



Trademarking, Growth, and Age



Trademarking and Innovation

Probability a firm has →	Trademark	Patent
Firms with a trademark	100	7.6
Firms with a patent	16.5	100
Firms with R&D activity	19.7	53.3

Concluding Remarks

- We: develop linkages, characterize trademarking firms in the US
- Trademarks as indicator of innovative activity
- Next steps:
 - ▶ Data: additional matching work, integrate assignments database, construct trademark portfolios
 - ▶ Research: firm dynamics; trademark value; test models of search/loyalty/advertising, relation to other types of innovation

thank you