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Three Essays on Regulation and Entrepreneurship

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Abstract

My dissertation analyzes how government regulations can affect entrepreneurship and small business performance. In my first essay, I focus on the relationships between occupational licensing regulation and key business outcomes. In the second essay, I explore (with a coauthor) whether businesses started as franchises survive longer than those launched as independent businesses, and whether there is a link between state franchise relationship regulation aimed at preventing franchisor opportunism and the survival of franchised businesses. In the final essay, I analyze (with a coauthor) how personal bankruptcy laws affect entrepreneurship. All three essays rely on confidential U.S. Census Bureau micro-data.

Keywords: Regulation, Entrepreneurship, Industry Dynamics, Occupational Licensing, Franchising, Personal Bankruptcy Laws, Census.

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EXECUTIVE SUMMARY

Overview

My dissertation analyzes how government regulations can affect entrepreneurship and small business performance. The first essay focuses on the effects of occupational licensing regulation, which has increased dramatically in importance over the last several decades and currently affects more than one thousand occupations in the United States. I use confidential U.S. Census Bureau micro-data to study the relationships between occupational licensing and key business outcomes. Among findings that shed light on the effect of occupational licensing on entrepreneurship are that occupational licensing regulation does not affect the equilibrium number of practitioners, but substantially reduces their entry and exit rates and that providers of occupational licensing training, namely, schools, are larger and seem to be more profitable in states with more stringent occupational licensing regulation. In the second essay, I explore (with a coauthor) whether businesses started as franchises survive longer than those launched as independent businesses, and whether there is a relationship between state franchise relationship regulation aimed at preventing franchisor opportunism and the survival of franchised businesses.

[*] This research was funded in part by the Ewing Marion Kauffman Foundation. The content of this dissertation is solely the responsibility of Marek Zapletal. The research was conducted while the author was a Special Sworn Status researcher of the U.S. Census Bureau. Opinions and conclusions expressed herein are those of the author 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. National Science Foundation (ITR-0427889) support for this research at the Michigan RDC is gratefully acknowledged.

We find the difference in one-year survival rate between franchised and independent businesses to be about five percentage points, and this gap to persist across two and three-year survival rates. State franchise relationship laws, however, do not seem to affect the survival of franchised businesses. In the final essay, I analyze (with a coauthor) how personal bankruptcy laws affect entrepreneurship. Lenient bankruptcy laws may encourage entrepreneurship by limiting the possible negative consequences of business failure. We examine this relationship using variation in state bankruptcy homestead exemptions, and analyze the impact of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 that affected these exemptions. We argue that sole proprietorships are expected to be affected by the differences in homestead exemptions, corporations, because they have limited liability, not to be affected. Consistent with these predictions, entrepreneurs' choice of legal form of organization does not seem to be affected by homestead exemptions, and we find no evidence of any significant effect of the Bankruptcy Abuse Prevention and Consumer Protection Act on entry rates.

Essay 1: The Effects of Occupational Licensing: Evidence from Detailed Business-Level Data

Occupational licensing regulation specifies requirements a practitioner must fulfill to be permitted to perform certain services. Such regulation currently governs, to varying degrees across U.S. states, more than one thousand occupations (Brinegar, 2006), and both the number of occupations and percentage of the workforce covered by such regulations have increased dramatically over the last several decades. At present, nearly thirty percent of the workforce is required to obtain some form of licensing, up from about four percent in the 1950s (Kleiner and

Krueger, 2013). These, mostly state level, regulations directly affect both blue- and white-collar workers.[1]

Intended to improve service quality (Shapiro, 1986), limit negative externalities (Kleiner, 2006), and reduce information asymmetries (Arrow, 1963, Akerlof, 1970, Leland, 1979), occupational licensing regulation does not necessarily improve consumer welfare because, unlike voluntary certification, it also increases barriers to entry. Theoretical models of industry dynamics based on Jovanovic (1982), Hopenhayn (1992), and Asplund and Nocke (2006) associate higher barriers to entry with reduced competition, which can harm consumers. Welfare loss is potentially especially large in industries characterized by frequently repeated purchases, limited potential for externalities, or easy-to-implement voluntary certification.

This essay makes several contributions to the literature. First, the literature on occupational licensing has largely relied on survey data that provide limited information on the number, and entry and exit patterns of, practitioners in a market, and limited the outcomes explored mostly to earnings. I combine two comprehensive U.S. Census Bureau data sets (the Longitudinal Business Database (LBD) and Integrated Longitudinal Business Database (ILBD)), in order to study the effect of occupational licensing on the per capita number, as well as entry and exit rates, of practitioners and thereby shed light on the effect of licensing on the intensity of competition. Second, I study the relationship between the intensity of occupational licensing and providers of the training. This relationship, which is crucial to a better understanding of the political economy of occupational licensing regulations, has been largely unexplored until now. Lastly, I study the effects of occupational licensing in the unique setting of the cosmetology

[1] For a detailed list, see, for instance, Bianco (1993). The Institute for Justice (Carpenter et al., 2012) recently published state licensing burdens for 102 low- and moderate-income occupations.

industry, which provides jobs for more than a million practitioners. This industry is characterized by localized markets, relative within-industry homogeneity of occupations, substantial variation in regulation across the U.S. states, and sizable entry costs associated with licensing.

I find no evidence that more intense occupational licensing regulation affects the equilibrium number of practitioners or leads to higher prices for consumers. I do find, however, that such regulation substantially reduces practitioner entry and exit rates. That fewer practitioners seem to test their fit for the occupation may result in lower ability practitioners being able to survive in more intensely regulated markets. Lastly, the evidence suggests that providers are the clear beneficiary of more licensing, licensing intensity being associated with both larger numbers of instructors and larger producer surplus for training schools.

Essay 2: Survival Prospects of Franchised and Independently Owned Businesses: A New Look[†]

The International Franchise Association (IFA), numerous individual franchisors, and the trade press have for decades maintained that the failure rate of individual franchised businesses is far below the high rates of failure of independent firms generally. The IFA's position is reflected in the following excerpt from its critique of the CNBC Documentary, "Behind the Counter: The Untold Story of Franchising."

> According to the U.S Small Business Administration, seven out of 10 new employer firms survive only 2 years, half at least 5 years, a third at least 10 years, and a quarter stay in business 15 years or more. […] According to previous research conducted by the IFA Educational Foundation, more than 90 percent of franchisees renew their agreements at the end of their contracts. On an annualized basis, approximately 5-6 percent of the franchisees that come up for renewal are terminated (not renewed), and

[†] This essay represents joint work with Francine Lafontaine of the University of Michigan.

approximately 2-3 percent are transferred to another owner (this may be due to a retirement, a death of the previous owner, or a multitude of other factors that have nothing to do with whether or not the business was "successful").

The tone of the IFA's message, and statistics emphasized within it, suggest that franchises are much less risky than independent businesses. But when failure rates of franchised businesses overall, not just the subset of failure attributable to terminations and non-renewals in franchised chains, are compared with those of independent businesses, the evidence is mixed. Bates (1995a, b), for example, documented that 38 percent of franchised, versus 32 percent of non-franchised, small businesses started in 1986-1987 were no longer operating in late 1991. In other words, the failure rate of franchised businesses is greater, and that of independent businesses much lower, than suggested by industry insiders.

In theory, starting a business as a franchise should be less risky than launching an independent business because franchisees benefit from franchisors' reputation and know-how and may realize cost savings from more efficient supply chains and bulk purchasing. That franchised establishments have become a ubiquitous part of modern day life suggests that business owners value these benefits.[2] Independent business owners, however, do not have to pay franchising fees including royalties on revenues, and retain complete autonomy, allowing them to adapt as needed to changing market conditions. This latter capacity suggests a potential for superior performance by non-franchised businesses.

This essay revisits the question of franchise versus independent business performance measured in terms of survival rates. We also explore whether state franchise relationship

[2] Franchise information collected from more than 4.3 million establishments by the U.S. Census Bureau in the Economic Census Franchise Statistics for 2007 document that franchise establishments represented 10.5 percent of employer establishments and employed 7.9 million people. The majority of establishments in franchise chains (77.4 percent) were franchisee-owned. For an industry breakdown of these data see, for instance, Kosová and Lafontaine (2012).

regulations aimed at preventing franchisor opportunism increase the survival of franchised businesses. Our analyses exploit newly available U.S. Census Bureau data from the Survey of Business Owners (SBO) that includes a question about whether or not a business is franchised. The SBO was started in 2002 and is currently available also for the year 2007. We use the comprehensive Longitudinal Business Database (LBD) of the U.S. Census Bureau to determine survival status for the first few years in business. To limit differences in survival rates documented for repeat business owners (see, notably, Bates, 1998 for franchise business owners and Kalnins and Lafontaine, 2013 for business owners generally), we focus on single-establishment businesses, whether franchised or independent. We find that in simple mean comparisons, the one-year survival rate is about six percentage points higher for franchised than for independent businesses. The difference in the two-year survival rate is even greater at nine to ten percentage points. Controlling for the many factors that may lead an individual to pursue a franchise rather than open an independent business reduces the difference in survival rate slightly, to about five percentage points for the one-year survival rate. Although this gap persists for the two-year and three-year survival rates, we do not find, conditional on having survived one year, any survival advantage for franchised businesses. Franchised businesses from the 2002 cohort that survived to 2003, for instance, have no survival advantage over the set of independent businesses that also survived to that point. Its absence after the first year suggests that the conditional survival advantage of franchised businesses is not a function of franchisers' selection of higher ability applicants relative to market selection in the case of independent businesses. We would expect franchisor selection of higher ability individuals to be reflected in a survival advantage for franchised businesses that persists beyond their initial years. That it does not leads us to suspect that the higher survival rate in the initial years is perhaps best explained by franchisor provided know-how.

Essay 3: The Effect of Personal Bankruptcy Laws on Entrepreneurship[‡]

Bankruptcy laws determine how costly it is for entrepreneurs to shut down insolvent businesses. As many startups do not succeed and some end up insolvent, making the consequences of bankruptcy less daunting may increase entrepreneurs' willingness to start businesses. The 2005 Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) made it more difficult for individual bankruptcy filers to take advantage of more lenient state bankruptcy laws. We examine the impact of bankruptcy legislation, in particular homestead exemptions, on entrepreneurship, measured by business entry rates.

We focus on the homestead exemption, which protects the houses of individuals who default on unsecured loans, because it is the largest and most variable exemption. Our analyses exploit variation in these exemptions together with changes caused by the 2005 enactment of the BAPCPA. We use comprehensive, confidential U.S. Census Bureau databases that include the universe of all U.S. businesses, employer and nonemployer, namely, the Longitudinal Business Database (LBD) and the Integrated Longitudinal Business Database (ILBD). The U.S. Census Bureau defines a nonemployer business as a business with no paid employees, an employer business as a business with paid employees. We also observe the legal form of organization under which businesses are established, sole proprietorships, which have unlimited liability, being expected to be affected, corporations, which have limited liability, not to be directly affected, by personal bankruptcy laws.

Lenient personal bankruptcy laws can enhance entrepreneurial activity by inducing risk-averse individuals to become entrepreneurs (Kihlstrom and Laffont, 1979). Fan and White (2003) and Armour and Cumming (2008), for example, find individuals protected by debtor-

[‡] This essay represents joint work with Xiaoyang Li of the Cheung Kong Graduate School of Business.

friendly bankruptcy systems to be more likely to be business owners. Paik (2013), however, finds the BAPCPA to have virtually no noticeable effect on the overall level of entrepreneurship, in part because entrepreneurs have become more likely to start businesses as limited liability instead of unlimited liability companies.

Our essay makes two main contributions to the literature. First, ours is the first paper to explore the impact of bankruptcy homestead exemptions on entry rates of both employer and nonemployer businesses. The literature on the impact of bankruptcy laws has focused on self-employment, a small segment of the economy, and relied on survey data, such as the Survey of the Income and Program Participation (Fan and White, 2003) and the Current Population Survey (Paik, 2013). Moreover, it has examined mostly the effect of bankruptcy legislation on *being* self-employed (Fan and White, 2003, Armour and Cumming, 2008) or outcomes of already operating businesses (Cerqueiro and Penas, 2011). We explore instead business creation for both employer and nonemployer businesses, for which we are able to construct measures without selection issues because our data include all U.S. businesses. Our second contribution is that our analyses of the effects of homestead exemptions take into account state house values, which is critical because they affect an entrepreneur's possible downside in the event of bankruptcy. Finally, we control for various market-level characteristics that might affect the rate of business creation.

We find moderate positive effects of the bankruptcy homestead exemption on entry rates of sole proprietorships, more pronounced for nonemployer businesses, and no significant effects for corporations. Entrepreneurs' choice of legal form of organization seems not to be affected by homestead exemptions, nor do we find evidence of any significant effect of the BAPCPA on entry rates.

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