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EFFECTS OF HEALTH INSURANCE POLICY ON ENTREPRENEURSHIP

Andrew P. Boysen

The Wharton School, University of Pennsylvania, USA, aboysen@wharton.upenn.edu

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Does the availability of health insurance for young adults affect entrepreneurial behavior? Prior research has proposed that the employer-provided system of insurance in the US may reduce entrepreneurship, as individuals are locked into an employer-employee relationship to maintain coverage. It is also possible that policy effects may go beyond the binary, and shape choices around entrepreneurial form, such as the decision around incorporation. I use the adoption of 38 dependent coverage mandates in 31 states, passed from 1986 to 2013, and the adoption of a federal mandate in 2010 to analyze the impact of non-employer provided insurance on entrepreneurial activities. I find a positive relationship between the 2010 federal mandate and unincorporated entrepreneurship, and negative relationships between state and federal mandates and incorporated entrepreneurship. These results suggest that while a reduction in job lock through non-employer insurance for young adults may encourage unincorporated entrepreneurship, it may lower participation in incorporated entrepreneurship.

Entrepreneurship has long been seen as an important element behind the dynamism of market economies. Entrepreneurs can create new industries, bring disruptive new technologies to market, provide additional income opportunities in slack labor markets, or allocate capital more efficiently through the process of creative destruction (Aldrich & Fiol, 1994; Christensen & Bower, 1996; Fairlie, 2013; Klepper, 1996; Schumpeter, 1947; Sorensen & Sharkey, 2014). Not surprisingly, this often leads to questions about how policy might shape entrepreneurial decisions. While many policies are intended to have a direct effect on the ease of entrepreneurial activity, by influencing the availability of credit or regulatory barriers to entry, there is also concern that policies of other types may also play a role. One area of policy of particular interest has been healthcare policy, in part because the United States has an employer-based health insurance system which may lead to entrepreneurship lock, a term used to describe the inability of an individual to become an entrepreneur due to their need to maintain health insurance. This paper analyzes the relationship between non-employer health insurance and unincorporated and incorporated entrepreneurship among the young adult population of the United States.

Entrepreneurship lock is related to the concept of job lock, where individual labor mobility is reduced due to the need of an employee to remain with a given employer to maintain health insurance in an employer-based health insurance system. Given the high cost of medical care, a lack of coverage represents a real risk for entrepreneurs who are unable to obtain coverage on their own or through another source. Following this reasoning, a decrease in job lock, through an increase in the availability of health insurance beyond employer-provided insurance, should increase the rate of entrepreneurship.
Incorporation involves both costs and benefits for entrepreneurs, ranging from limitations of liability to additional tax and reporting requirements, which may vary in relative importance depending on business and personal characteristics, such as capital intensity or personal wealth. To the extent that the choice of incorporation reflects underlying differences in the nature of the venture, it may also be important to consider whether policy effects differ by type of entrepreneurship, whether incorporated or unincorporated. Given the relatively limited capital available for most young adults transitioning to entrepreneurship, which could limit both the capital intensity of the venture and the scope of assets the entrepreneur may hope to protect, the positive effect of reducing entrepreneurial lock for young adults on entrepreneurship can be expected to be even greater for unincorporated entrepreneurship.

The effect of entrepreneurship lock on incorporated entrepreneurship is less clear. While a reduction in job lock increases mobility, among young adults it may also decrease labor market participation, with individuals working fewer hours and less likely to be employed full-time, (Antwi, Moriya, & Simon, 2013). To the extent this broader labor-market pattern is mirrored in entrepreneurial entry decisions, and to the extent incorporated entrepreneurship represents a greater commitment of effort, a reduction in entrepreneurship lock among young adults may decrease incorporated entrepreneurship.

Determining the relationship between health insurance and entrepreneurship is a challenge because many of the options for obtaining non-employer insurance are correlated with other factors that shape entrepreneurial activity, such as marital status, education, or financial resources. I attempt to address these concerns through the use of a natural experiment where young adults are able to remain on their parents’ health insurance beyond completion of their education. While the core mechanism suffers from similar biases (parents with insurance are not the same as those without), whether a particular individual receives coverage also depends on their age, the state they live in, and the year. I use the adoption of 38 dependent coverage mandates in 31 states, passed from 1986 to 2013, and the adoption of a federal mandate (the Affordable Care Act, or ACA) in 2010 to analyze the impact of non-employer provided insurance on entrepreneurial activities. The Affordable Care Act dependent coverage mandate allows anybody up to age 26 to be covered by their parents’ group health insurance plan, and though there are some state-level differences, the state policies collectively are very similar (Levine, McKnight, & Heep, 2009; Monheit, Cantor, Delia, & Belloff, 2011). I use a difference-in-differences linear probability model to identify the change in unincorporated and incorporated entrepreneurship surrounding the implementation of these state and federal laws.

Using this approach, I find the expected positive relationship between the federal mandate and unincorporated entrepreneurship. The expected relationship between the state policies and unincorporated entrepreneurship is not significant. I find the expected negative relationship between both the state and federal mandates and incorporated entrepreneurship. These findings suggest that policy may in fact differentially impact different types of entrepreneurship, which might be proxied by unincorporated and incorporated entrepreneurship, perhaps depending on the nature of the policy and sub-set of the population that might be affected by the policy. While these results are for a particular type of policy affecting only a subset of the population, it points to the possible value of considering how other policies might differentially impact entrepreneurship of different types.
This paper is primarily related to the literature on non-employer health insurance and entrepreneurship lock. Entrepreneurs in the US have historically found it difficult to obtain insurance, and have been less likely to be insured (Wellington, 2001). Given this challenge, it is expected that access to non-employer-provided health insurance, reducing entrepreneurship lock, could increase entrepreneurial activity (Fairlie, Kapur, & Gates, 2011; Holtz-Eakin, Penrod, & Rosen, 1996; Wellington, 2001). Prior empirical tests looking at this relationship have primarily relied on variation in coverage through a spouse's employer, to show that those with non-employer health insurance are more likely to be or become self-employed (Fairlie et al., 2011; Holtz-Eakin et al., 1996; Wellington, 2001). Fairlie et al. (2011) also found a discontinuity in business ownership among some workers in the months surrounding their 65th birthday, as those workers became eligible for Medicare. Some policy research has also looked at policies directly targeting insurability of the self-employed, finding that increases in tax deductibility of insurance premiums for the self-employed increased entrepreneurship (Heim & Lurie, 2010). I extend this stream of research by considering multiple policy events and considering a demographic that has not been the focus of previous research.

This paper also touches on the literature related to entrepreneurial form. While it has been proposed that policy has the potential to shape the form of entrepreneurial activity, to more or less productive ends, and that this potential may be even greater than the potential of policy to affect the rate of entrepreneurship (Baumol, 1990), little research has been done to explore what this might look like in practice. One entrepreneurial form that is particularly interesting to scholars of entrepreneurship is incorporated entrepreneurship, because incorporation is seen as providing a variety of benefits, including a potential reduction in personal liability (Armour & Cumming, 2008; Klapper, Laeven, & Rajan, 2006). While not the most nuanced measure of entrepreneurial form, this research does capture one important dimension, and suggests the value of further research on the relationship between policy and entrepreneurial form.

Hypotheses Development

Though prior research has generally assumed that the outside availability of insurance coverage will increase entrepreneurial behavior (Fairlie et al., 2011; Holtz-Eakin et al., 1996; Wellington, 2001), these studies considered populations which may differ in several ways from young adults. Young adults may have fewer outside options for insurance coverage, based on their limited work experience, which raises the question of whether entrepreneurship lock is even relevant for a large portion of demographic. Younger adults are also less likely to be married, which can limit the option for entrepreneurs to rely on spousal coverage.

Perhaps most importantly for this study, young adults tend to have much less financial capital, which can play an important role in the transition to entrepreneurship (Fairlie, 2013; Schmalz, Sraer, & Thesmar, 2014). With less capital, the range of entrepreneurial options are limited, and the relative costs and benefits of incorporation may differ for young adults. With less capital invested in the business, the advantages of organizing that capital in a separate legal entity may be less apparent, and with fewer personal assets the limitation of liability may seem less important. Given the relatively limited capital available for most young adults transitioning to entrepreneurship, which could limit both the capital intensity of the venture and the scope of assets the entrepreneur may hope to protect, and in line with existing theory of entrepreneurship lock, a positive effect of reducing entrepreneurial lock for young adults on entrepreneurship can be expected for unincorporated entrepreneurship.
H1: Policies that decrease entrepreneurship lock will have a positive relationship with unincorporated entrepreneurship.

Young entrepreneurs may also have work preferences that alter their tendency for different organizational forms with a reduction in entrepreneurship lock. Some research has found that benefits can lead young adults to defer entry into the labor market (Currie & Madrian, 1999), while preliminary evidence from the ACA indicates that dependent coverage may incentivize young adults to drop out of the formal labor market or reduce their hours worked, possibly taking more time to experiment with different career options, with more part-time and flexible work arrangements (Antwi et al., 2013). To the extent this broader labor-market pattern is mirrored in entrepreneurial entry decisions, and to the extent incorporated entrepreneurship represents a greater commitment of effort, which young adults may be less willing to expend, a reduction in entrepreneurship lock among young adults may decrease incorporated entrepreneurship. As with job lock, this may reflect a decision to not enter the market at all, or it may reflect a shift towards less formal and less intensive arrangements, but the overall effect is a reduction in incorporated entrepreneurship.

H2: Policies that decrease entrepreneurship lock will have a negative relationship with incorporated entrepreneurship.

Because of systematic differences between the state and federal laws, I treat these as separate treatments, though the hypothesized effects are the same. While dependent coverage eligibility under the ACA was strictly age-based, state laws varied in terms of who was eligible, based on criteria including marital status, residency, financial dependence, age, and more. State dependent coverage mandate applicability was also limited to a sub-set of insurance policies governed by ERISA, which does not cover self-insured employer plans, though some self-insured plans may have voluntarily extended coverage (Cantor, Belloff, Monheit, DeLia, & Koller, 2012; Levine et al., 2009; Monheit et al., 2011). An increase in young adult coverage has been found with both state and federal mandates, though effect sizes for the state policies were smaller (Levine et al., 2009), which may make state effects harder to find.

**Method**

<table>
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<tr>
<td>DV = Unincorporated Entrepreneurship (individual year-over-year change in employment status, to self-employed, unincorporated); Incorporated Entrepreneurship (individual year-over-year change in employment status, to self-employed, incorporated)</td>
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<tr>
<td>IVs = Individual-level indicators of state or federal treatment, post treatment</td>
</tr>
<tr>
<td>Controls = Individual state treatment indicator (based on age, marital status, residing with parents, veteran status); sex; married; dummies for prior year work status; age fixed effects; year fixed effects; state fixed effects; interactions between state and federal post-treatment indicators and indicators for state treatment of S-Corps (reduce cost of incorporation) and Group of 1 Laws (allow group health purchase for self-employed “groups of 1”); Note: federal treatment is based entirely on age, and the indicator is omitted due to age fixed effects.</td>
</tr>
<tr>
<td>Statistical Analysis = Generalized Difference-in-differences linear probability model, with robust standard errors and clustered at the state level.</td>
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</tbody>
</table>
Results

The results of the main regressions are shown in the Table 1 on the last page, with control variables and fixed effects suppressed. Both the federal and state policies have positive coefficients on unincorporated entrepreneurship, but only the federal treatment coefficient is significant at the p<0.05 level, lending partial support for Hypothesis 1. Both the federal and state policies have negative coefficients on incorporated entrepreneurship, significant at the p<0.05 level, providing support for Hypothesis 2. To provide some perspective on the estimated size of the relationship, the mean rates of unincorporated and incorporated entrepreneurship in the sample are about 70 per 10,000 and 26 per 10,000, respectively. The federal policy is associated with an increase of about 16 per 10,000 for unincorporated entrepreneurship and a decrease of about 10 per 10,000 for incorporated entrepreneurship. The individual level variation explained by this model is quite low, with very few individuals moving into self-employment of any type in a given year. No predictions were made about overall entrepreneurship, but the first column reports results for reference. The coefficients on overall entrepreneurship are positive, as would be predicted by the prior literature, but they are not significant. This is perhaps not surprising, given the opposing hypothesized effects, but also highlights how combining unincorporated and incorporated entrepreneurship may hide important information, at least in this context.

For illustrative purposes I’ve also included Graph 1, which graphs the rate of incorporated entrepreneurship (per 10,000 individuals) for the years around the ACA dependent-coverage mandate going into effect. CPS-ASEC data is gathered in March of every year, and the ACA dependent-coverage mandate went into effect upon first policy renewal after September 23, 2010. Many young adults had gained coverage by June 2011 (Antwi et al., 2013), but [March] 2012 represents the first survey year where all young adults were affected, as well as allowing for some lag for the coverage to impact entry decisions. The state policies go into effect over many different years, complicating graphical representations, but this generally parallel trend with divergence in 2012 provides some support for the parallel trends assumption necessary for a difference-in-differences model, though the assumption is not testable.

Discussion and Implications

This paper explores the relationship between non-employer health insurance coverage, made available through dependent-coverage mandates, and unincorporated and incorporated entrepreneurship. I extend the idea of entrepreneurship lock to consider how policy may relate to entrepreneurship differently, depending on the form of entrepreneurship being considered. My results suggest that policy may in fact impact entrepreneurship in complicated ways – in this case increasing unincorporated entrepreneurship and decreasing incorporated entrepreneurship among young adults. The importance of the specific results presented here depend in part on the degree to which incorporation proxies for important differences in the nature of the underlying entrepreneurial act, as opposed to simply differences in tax or liability planning. Regardless, I believe this highlights both the potential and importance of further research into the ways in which policy may impact other dimensions of entrepreneurial form that together may help identify levers for entrepreneurship to achieve particular policy goals.

I gratefully acknowledge invaluable advice from Adam Cobb, Luis Ballesteros, Iwan Barankay, Todd Gormley, and the Wharton Management Department PhD Seminar. All errors are my own. I also gratefully acknowledge financial support from the Wharton Risk Management and Decision Processes Center of the University of Pennsylvania.

Table 1. Results Summary

<table>
<thead>
<tr>
<th></th>
<th>H1</th>
<th>H2</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Entrepreneurship</td>
<td>Unincorporated</td>
</tr>
<tr>
<td>State treated * post</td>
<td>0.0000252</td>
<td>0.000825</td>
</tr>
<tr>
<td></td>
<td>(0.000655)</td>
<td>(0.000517)</td>
</tr>
<tr>
<td>Federal treated* post</td>
<td>0.000676</td>
<td>0.00159**</td>
</tr>
<tr>
<td></td>
<td>(0.000667)</td>
<td>(0.0006)</td>
</tr>
<tr>
<td>Observations</td>
<td>874,295</td>
<td>874,295</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.003</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Graph 1. Rate of Incorporated Entrepreneurship (per 10,000), within the subsample employed last year (controlled in analysis using fixed effects for prior year work status).