The Effect of Labor Market Regulatory Policy on Nascent Entrepreneurship
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Abstract
The proposed research will investigate the link between growth of nascent entrepreneurial firms and state minimum wage policies, subminimum wage provisions, and exemptions for small businesses. We conjecture that nascent entrepreneurs are more likely to hire their first employee and do it earlier in the startup process when minimum wages are low. However, subminimum wage provisions and exceptions protecting small businesses may significantly moderate this effect. Moreover, some businesses are established to take advantage of opportunities (opportunity entrepreneurship) while others because the owner cannot find a satisfactory job (necessity entrepreneurship). The moderating effect of these two types of entrepreneurship will be investigated, as only the former significantly influences economic growth. This research will add to the minimum wage literature by focusing on nascent entrepreneurs. It will also highlight the importance of small business subminimum wage provisions and exemptions for nascent entrepreneurship, an unstudied phenomenon with significant public policy implications.

Statement of Specific Aims of the Project
Regulatory/policy issues addressed
This research will investigate the links between regulatory economics and success of nascent entrepreneurs. Nascent entrepreneurs are individuals who initiate activities (e.g. writing a business plan, talking to customers, seeking financial support) that are intended to culminate in a viable new firm (Reynolds, 1994; Davidsson, 2004; 2005). Therefore, nascent entrepreneurs are at the very early stages of starting a new venture. Regulatory economics is likely to impact these ventures differently, since they are usually smaller and have less money and experience than established firms. Specifically, the proposed project will evaluate minimum wage policies, subminimum wage provisions, and exemptions enacted by state legislatures for small businesses and their effect on the growth and success of nascent entrepreneurial ventures.

On one side, higher minimum wages increase consumer purchasing power, reduce turnover, and increase employees’ productivity, leading to economic growth. On the other side, higher minimum wages can potentially limit supply of cheap labor while low minimum wages may increase necessity entrepreneurship. Most of the previous literature concluded no significant effects of minimum wages on economy, as they affect only a very small percentage of labor force. However, this may not be true for startups because they are smaller and have less capital. Also, Goarrett and Wall (2006) found that four of the five industry categories with the largest percentage of employment of minimum wage workers are the industries that include one third of self-employed men and one half of self-employed women. For these reasons, very small businesses are usually exempt from the federal minimum wage. The federal law applies only to businesses that have $500,000 or more in annual sales (employees may still be covered if they work in commerce between states). States vary in their subminimum wage provisions and exemptions for small businesses. For example, in California all employers must pay the minimum wage but Ohio applies a higher minimum wage to employers with annual gross receipts of $297,000 or more.

Previous literature reported that the minimum wage laws significantly affect the decision to enter entrepreneurship. Bruce and Mohsin (2006) found that a $1 increase in the real minimum wage decreases the entrepreneurship rate by 1-1.5%. Coomes et al. (2013) reported that every 1% increase in the minimum wage reduces the proprietorship rate between 0.013 and 0.048% and concluded that labor laws make it more costly for proprietors to hire workers and thus increase the switching costs into proprietorship. The proposed research will extend this literature by evaluating: implications of
state minimum wage policies on the decision by nascent entrepreneurs to hire employees, how fast in the startup process employees are hired and if and how fast a new operating business is formed. In particular, the moderating role of subminimum wage provisions and exemptions for small businesses will be investigated.

Hypotheses
The following research questions will be further developed as hypotheses and tested:

RQ1: What are the effects of state minimum wages on the likelihood that nascent entrepreneurs hire employees and eventually form a new viable firm?

RQ2: What are the effects of state minimum wages on how fast in the startup process nascent entrepreneurs hire employees and on the time it takes to eventually form a new firm?

The following moderators will be tested:

RQ3: Do subminimum wage provisions and exemptions enacted by state legislatures moderate the effects of minimum wages hypothesized above?

RQ4: Does necessity entrepreneurship moderate the effects hypothesized above?

RQ5: Does sex moderate the hypothesized above effects? (Females tend to start businesses with less capital.)

RQ6: Do specific industries moderate the effects hypothesized above? (E.g. restaurants are the most intensive users of minimum wage workers.)

The rationale and economic basis
The federal minimum wage is currently $7.25 but many states have higher requirements (with District of Columbia having the highest minimum wage of $11.50 regardless of the size of the employer). Currently, 29 states, plus the District of Columbia, have set their minimum wage above the federal level, 15 states, plus the District of Columbia, index their minimum wages to rise automatically with the cost of living, and 10 states currently index minimum wage increases each year (including Montana). Most of the previous literature shows no negative effect on the economy, as only 2% of workers are paid the minimum wage (e.g. Dube et al. 2010, Brown, 1999). However, as cited above, minimum wages do affect the decision to enter into entrepreneurship. Therefore, we can suspect that minimum wages affect the probability of hiring employees and eventually forming a new firm by young ventures, who often sorely lack resources.

The minimum wage policies may affect entrepreneurship in many ways. High minimum wages decrease the access to cheap labor, potentially preventing the growth of early startups as nascent entrepreneurs will not hire employees and develop to their full potential. Hiring employees is one of the most important steps in the startup process. Second, low minimum wages make entrepreneurship more attractive to unskilled labor, possibly increasing the necessity entrepreneurship by making an alternative employment less attractive. High minimum wages increase the opportunity cost of leaving salaried employment to start or work in a new venture. Finally, higher minimum wages are good for the economy and sales by increasing cash circulating in the economy, reducing employee turnover, and increasing productivity. This increases startups’ bottom line by raising prices and customers’ base and allowing startups to grow. Therefore, the total impact of minimum wages on the growth of the entrepreneurial firm must be evaluated empirically.

Significance of the Project
The importance of the regulatory/policy issue
Entrepreneurs are thought to play a vital role in the economy. They are touted as a primary driving force behind employment creation, technological advancement, innovation, creating change, intensifying competition, and overall economic growth (Wennekers & Thurik, 1999; Carree & Thurik, 2003). Also, entrepreneurship occupies an iconic place in American public policy debate,
and political leaders of both parties routinely voice their support for the sector (Gale & Brown, 2013). A number of economists propose that the key obstacle to economic growth is the insufficient level of entrepreneurship and see entrepreneurship as having some public good characteristics (Hausmann & Rodrik, 2003; Iyigun & Rodrik, 2004). However, minimum wage policies may prevent early stage ventures from growing to their full potential, and the effect of minimum wages on nascent entrepreneurs is not fully understood. Entrepreneurial firms are often younger, smaller, and less capital-intensive employers and labor security regulations may disproportionally burden startups. Availability of labor is one of the most important factors affecting birth and growth of a business, and previous literature clearly showed that hiring employees has a major impacts on the transition from a startup to a successful new firm (Reynolds, 2010).

**How the research project will improve our knowledge regarding the regulatory/policy issue**

The minimum wage is one of the most researched areas in labor economics. Most studies show little impact on the overall economy but debate and policy has largely ignored the lesser known subminimum wage policies. Also, studies that examined the decision to enter entrepreneurship show significant effects. This study will extend this research by examining the impact of minimum wages on nascent entrepreneurs’ hiring decisions and, therefore, on venture growth. The panel data analyzed in this study will allow us to see how the minimum wages directly affect the decisions to hire and their timing. This approach avoids many econometric problems discussed in the literature on this topic. Some previous literature examined the effect of subminimum wage provisions on teenage labor and disabled (see Card, Katz, & Krueger, 1993 vs. Neumark & Wascher, 1993) but not the effects of subminimum wage provisions and exemptions for small businesses. For example, Sabia (2006) reported that a 10% increase in the minimum wage is associated with a 4.6 to 9% decline in teenage employment in small businesses and a 4.8 to 8.8% reduction in hours worked by teens in the retail sector. This research will highlight the importance of subminimum wage provisions and exemptions for startups as unstudied phenomenon with significant public policy implications.

**How the research could potentially help policy makers addressing the regulatory/policy issue**

If minimum wages affect nascent entrepreneurs in a disproportional way but subminimum wage provisions and exemptions eliminate or reduce these effects, it may be desirable to recommend that legislators pass these provisions. However, if the results show no effect of minimum wages or subminimum wages and exemptions, there is no economic justification for such policies. Additionally, low minimum wages make entrepreneurship more attractive to unskilled labor, possibly increasing the necessity entrepreneurship by making alternative employment less attractive. However, necessity entrepreneurship does not generate desired externalities and economic growth (Acs, 2006). If only necessity entrepreneurship is affected by minimum wages, than no regulatory policy is justified since this kind of entrepreneurship may signal lack of better employment. Some economic sectors such as restaurants may take the brunt of these provisions as they usually employ cheap labor. Also, females are known to start their businesses with less money. If minimum wages affect some demographic groups or sectors differently, economic regulation has to be fine-tuned accordingly.

**How the research fits into the CRAEA mission.**

The proposed research analyzes regulatory economics as applied to nascent entrepreneurship. It will inform the public policy debate on the important issue of minimum wages, subminimum wages, and exemptions for small businesses. These labor regulations may significantly hiring decisions and firm formation in nascent entrepreneurship. An undergraduate business student will help in this research.

**Innovation** How the project is creative, unique, and innovative
The proposed research seeks to advance current literature and public policy by
 focusing on nascent entrepreneurs (as opposed to existing firms previously studied),
 focusing on the decision to hire and its timing and the act of forming a new firm (as opposed to the mere entry into entrepreneurship),
 analyzing not only the level of state minimum wages but also the moderating effect of subminimum wages and exemptions for small businesses,
 allowing for differential impact on necessity and opportunity entrepreneurship,
 investigating the differential impact of business sectors and some demographic characteristics such as sex,
 using a panel data (PSED) where entrepreneurs are surveyed every year for 5 years, which avoids some econometric problems present in previous studies on the subject,
 informing state legislators about the effect of minimum wages on startups’ hiring decisions and outcomes,
 providing specific recommendations to state legislators on the rationale for adopting or dropping the small business exemptions or subminimum wage provisions.

How the project moves the applicant’s research program forward.
My recent research focuses on entrepreneurship. I authored and co-authored 4 papers including 3 using the PSED data on the subject. My PhD and the bulk of subsequent work was in public policy. Participation in the CRAEA program will give me opportunity to merge my two goals: to help startups to form a viable firm and to help legislators form economically sensible public policies.

Approach (Design and Methods)
Current state of research and the underlying economic theory; Research methods and data
The proposed project will follow standard approach to research, starting with the literature review and development of theory and hypotheses. (Some preliminary assessment of current state of research has already been conducted to identify gaps in the literature, as evidenced above.) The project will draw on the economic theory of market failure and externalities, as applied to nascent entrepreneurs. The project will advance this theory by proposing that the regulatory policy may have a differential impact on nascent entrepreneurs, as opposed to small or established firms, as discriminate between necessity and opportunity entrepreneurship.

The proposed research will study the effect of minimum wages on the probability of hiring employees (using logistic regression), the timing of hiring (measured from the startup conception, defined as 3 completed startup activities; using hazard model) as well as the ultimate outcomes: birth of the new firm (positive monthly cash flow covering expenses and owner-manager salaries for six of the previous twelve months; using multinomial regression on: new firm, quit, or still in process) and time to forming a new firm (hazard model). Our independent variable will be the state minimum wage at the time of the startup conception (and alternative specifications used in previous literature such as lags covering a 6-year window; minimum wage/GSP). Separate regressions will test our moderators. We will control for other startup and entrepreneur characteristics (that affect the decision to hire employees) as well as for the state of the economy (e.g. an unemployment rate). The project will merge state labor regulations to the Panel Study of Entrepreneurial Dynamics II (PSED II), the largest, nationally representative, and longitudinal database on nascent entrepreneurs for the U.S., which surveyed 1,214 individuals working on their startups every year from 2005-2011.

Generating research results, producing papers, getting expert feedback
The proposed research will produce a manuscript for publication in the Small Business Economics or a similar A-ranked journal. It will be presented at the Academy of Management annual conference and MSU seminars. As described by the CRAEA, a white paper and a policy brief will be created.
Further research may link PSED data with state licensing law, taxes, and economic freedom index.
References


