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The University of Southern Mississippi

WHAT WILL THE NEIGHBORS THINK? PERCEPTIONS OF FAILURE  
INTOLERANCE ON INDIVIDUAL ENTREPRENEURIAL  
INTENTION IN THE RURAL MIDWEST

by

Brock Matthew Stout

Abstract of a Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

December 2015

## ABSTRACT

# WHAT WILL THE NEIGHBORS THINK? PERCEPTIONS OF FAILURE INTOLERANCE ON INDIVIDUAL ENTREPRENEURIAL INTENTION IN THE RURAL MIDWEST

by Brock Matthew Stout

December 2015

Entrepreneurship is increasingly considered the most efficacious economic development intervention, but employing research-informed efforts is important. Extensive literature in entrepreneurship links the perception of a local culture's intolerance of business failure to extinguishing of entrepreneurial intention in a community. Some research refutes that link. This study investigated the influence of perceived failure intolerance (PFI) on entrepreneurial intention—and the influence of self-efficacy on perceived failure intolerance—in the rural Midwestern United States. The study employed a modified Delphi methodology to analyze the decision-making processes of potential entrepreneurs as interpreted by experts in rural entrepreneurship. The study provides data about the interaction of human capital and entrepreneurship, for more effective support of potential entrepreneurs. The study concludes that PFI is not a critical hindrance to entrepreneurial intention in potential entrepreneurs in the rural Midwest, but PFI can discourage certain types of people from becoming potential entrepreneurs. Communities can intervene to increase the likelihood of developing collective entrepreneurial intention.

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WHAT WILL THE NEIGHBORS THINK? PERCEPTIONS OF FAILURE  
INTOLERANCE ON INDIVIDUAL ENTREPRENEURIAL  
INTENTION IN THE RURAL MIDWEST

by

Brock Matthew Stout

A Dissertation  
Submitted to the Graduate School  
and the Department of Human Capital Development  
at The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

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December 2015

## DEDICATION

In speaking of the victory at Waterloo, the Duke of Wellington is said to have remarked that “I don’t think it would have done had I not been there” (Dutton, 2012, p. 148). This study was completed because my wife was there. She is the Duke of Wellington for the dissertation. Perhaps no empires will thank her, but I do.

## ACKNOWLEDGMENTS

I would like to especially thank Heather Annulis and my committee members Cyndi Gaudet, Dale Lunsford, Patricia Phillips, and Quincy Brown for heroic flexibility in overcoming obstacles of geography.

I would also like to thank William Gartner and the Academy of Management, Icek Ajzen and Elsevier Publishing, for allowing usage of conceptual models.

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## CHAPTER I

### INTRODUCTION

Because economic recovery remains elusive (Panckhurst, 2013; Ragacs & Vondra, 2013), various types of interventions for local economic development have been administered such as industrial recruitment and “buy-local” programs (Hamilton, 2008; Persky, Ranney, & Wiewel, 1993), but rural depopulation trends continue (Young, 2006) and globally the number of rural poor is increasing (Barbier, 2012). Research recommends encouraging entrepreneurship (van Burg & Romme, 2013). Entrepreneurial environments differ between rural and urban regions (Freire-Gibb & Nielsen, 2011), but many local economies in rural regions of the Midwestern United States in particular are languishing (Acs & Malecki, 2003). Successfully increasing entrepreneurial outcomes requires identifying the catalysts and inhibitors to entrepreneurial intention (Grundstén, 2004; McGee, Peterson, Mueller, & Sequeira, 2009).

One inhibitor or barrier to entrepreneurial intention proposed by researchers is perceived failure intolerance (Grilo & Thurik, 2005), which is the paralyzing of intention when triggered by an individual’s fear that other community members will feel contempt for the individual whose venture attempt fails. This is a potentially credible inhibitor, because it is clear that “persons do not make decisions in a vacuum but rather consult and are subtly influenced by significant others in their environments: family, friends, co-workers, employers, casual acquaintances, and so on” (Aldrich & Zimmer, 1986, p. 6). Perceived failure intolerance is part of the obstacle expressed by FUBU founder

Daymond John: “We’re all born thinking like entrepreneurs. Family and friends convince you not to be an entrepreneur” (John, 2013).

### Background of the Study

Research in entrepreneurship began over 300 years ago, when Richard Cantillon introduced the concept of entrepreneurship in the early eighteenth century (Ahmad & Seymour, 2008), and Max Weber proposed the link between culture and economic outcomes (Stephan & Uhlaner, 2010). Entrepreneurship research is gaining momentum as entrepreneurial results are now recognized as a key to an economy's innovation and growth (Audretsch, 2010; Schramm, 2006). To understand why entrepreneurship is growing, Carree and Thurik (2010) provide four reasons for the shift from employment in large enterprises to entrepreneurship are “(1) the increase in labor supply, leading to lower real wages and coinciding with an increasing level of education; (2) changes in consumer tastes; (3) relaxation of (entry) regulations; and (4) the fact that we are in a period of creative destruction” (p. 559). The entrepreneurship research field is gradually maturing, and the next step is to move from promoting entrepreneurship “to creating a vibrant entrepreneurial economy” (Venkataraman & Sarasvathy, 2008, p. 2).

Entrepreneurship as the accepted solution for economic development is now called *axiomatic* (Acs & Storey, 2004) and it is considered “essential for the continued dynamism of the modern market economy” (Klapper, Amit, & Guillén, 2010, p. 129). “The creation of an innovation economy that’s driven by the rapid expansion of start-ups has never been more imperative” (Blank, 2013, p. 7). Other researchers agree, as an almost linear relationship is visible between high entrepreneurship levels and per

capita gross domestic product of countries<sup>1</sup> (Acs, Desai, & Hessels, 2008).

Entrepreneurship is suggested as necessary for a developing economy because at a minimum “the ability to absorb foreign aid is limited by the absence of entrepreneurs to use the capital and technical assistance supplied” (Papenek, 1962, p.

48). Entrepreneurship contributes to employment and economic vitality of rural regions (Steiner & Atterton, 2014). The other option for economic development, industrial recruitment, is no longer effective. “Economic and community development hinges not on chasing smokestacks, but on growing new businesses” (Krueger, Reilly, & Carsrud, 2000, p. 412). Exogenous capital for economic development—\$50 billion annually from the United States to Africa alone—is not effective (Moyo, 2009) and has not translated into sustained growth (Arellano, Bulíř, Lane, & Lipschitz, 2009). Within the United States, economic incentives to businesses are often unproductive and the fiscal return in many cases is negative (Peters & Fisher, 2004).

Some locations have achieved better entrepreneurial outcomes than others. Bosma (2009) notes that “over the past 25 years, entrepreneurship literature has established that entrepreneurial activity is highly unevenly distributed over regions. Also it has been confirmed that the regional context matters for individuals’ decisions to engage in entrepreneurship” (p. 10). Based on the work of Grundstén, (2004), an ideal environment would encourage both nascent entrepreneurs, defined as those actively involved in trying to start up, and pre-nascent entrepreneurs, or those exhibiting entrepreneurial intention (both groups together represent potential entrepreneurs). That ideal environment would broadly encourage the venture formation

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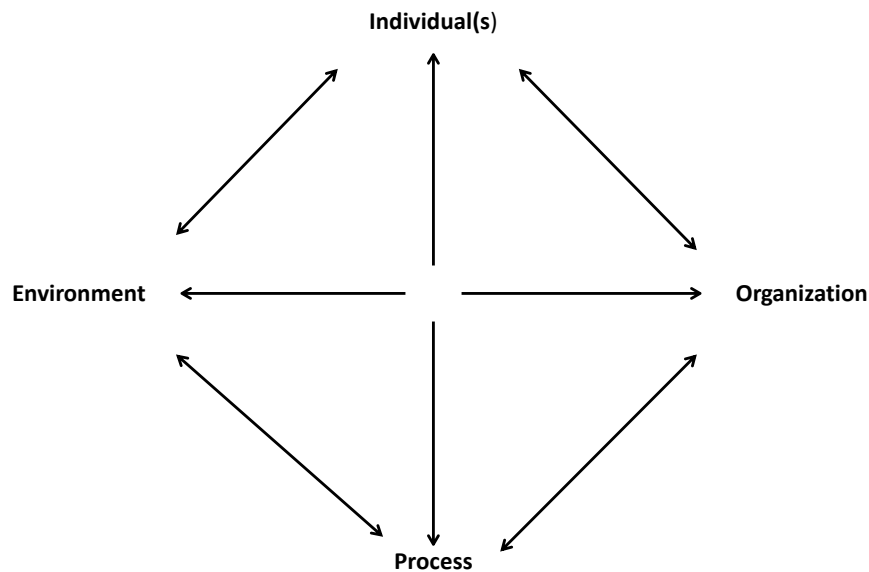
<sup>1</sup> GDP is measured in the Acs, et al. (2008) study in U.S. dollars based on purchasing power parity.

process which is a “complex and fragile process where internal and external factors converge and affect collectively the outcome of that process” (Wennekers, Van Wennekers, Thurik, & Reynolds, 2005, p. 7). Focusing on barriers and enablers of entrepreneurship, economic developers are keen to learn why some geographic areas have been more successful in order to replicate success. Delgado, Porter, and Stern (2010) observe that “a significant debate is underway regarding the role of the regional economic environment in shaping differences in the rate of regional entrepreneurship and overall economic performance” (p. 495). Culture, environment, and education play roles in the entrepreneurial readiness of a nation (Levenburg & Schwarz, 2008). “Understanding who becomes entrepreneurs, and more importantly, who achieves success with the new venture across different geographical settings is important to understand economic prosperity” (Freire-Gibb & Nielsen, 2011, p. 2). To generate an entrepreneurial culture, some variables may be more crucial; researchers have accordingly sought to prioritize purported antecedents of entrepreneurship (Karpak & Topcu, 2010; Morris, Kuratko, & Schindehutte, 2001; Talebi, Irandust, & Ghavamipour, 2012).

### *Entrepreneurship*

Entrepreneurship is a vast topic impacted by various factors (Gomez-Gras, Mirasolives, & Martinez-Mateo, 2010). The broad phenomenon of entrepreneurship can hence be modeled into subtopics for understanding, such as the non-reductive research framework from Gartner (1985) in Figure 1 that combines four interactive categories of elements: 1) individual, 2) organization, 3) process, and 4) environment. Each category represents numerous factors that have been studied separately (Gartner, 1985). The

present study focuses on the interaction between the individual and the environment, as “entrepreneurship involves the nexus of two phenomena: the presence of lucrative opportunities and the presence of enterprising individuals” (Refaat, 2009, p. 85).



*Figure 1.* Gartner’s framework for describing entrepreneurship, or new venture creation (1985). Reprinted with permission (Appendix A).

Entrepreneurship can also be broadly understood by investigating Nielsen’s (2012) three research questions: “(1) Why they act? - the causes of entrepreneurship, (2) How they act? - the entrepreneurial behaviour, and (3) What happens when they act? - the effects of entrepreneurship” (p. 1). Using the Nielsen (2012) framework, this study is concerned with investigating why entrepreneurs act. One barrier to entrepreneurial intention—perceived failure intolerance—is explained in the next section.



## Statement of Problem

The economic development challenges of rural regions are great (Duncan, 2012; Pack, 2014). Research has demonstrated that entrepreneurship positively influences employment and welfare in rural regions (Acs & Storey, 2004; Wennekers, van Stel, Caree, & Thurik, 2010), yet little research has been done to explain how an individual's perception of failure intolerance influences their intention to become and succeed as an entrepreneur. As entrepreneurial intention is necessary to entrepreneurial outcomes, researchers seek to discover which catalysts and inhibitors should receive development focus in languishing regions (Karpak & Topcu, 2010; McGee et al., 2009; Morris et al., 2001; Talebi et al., 2012). Some researchers propose that perceived failure intolerance (PFI) is a regional social norm that stifles intention, discouraging individuals from developing entrepreneurial intention. Determining the influence of PFI as an entrepreneurial intention inhibitor is critical to assist economic developers in prioritizing rural entrepreneurship efforts, as the most persistently poor counties in the United States are located in non-urban areas (Pack, 2014).

Poverty rates in rural America of 18% are approaching inner-city rates (Duncan, 2012). "Rural America is in the midst of an economic crisis . . . although rural poverty has received less attention" than its urban counterpart (Lyons, 2003, p. 97). In the rural Midwest, rates run as high as 50% (Mattingly & Bean, 2010), and some sub-regional economies are particularly weak (Acs & Malecki, 2003). Researchers suggest increasing entrepreneurial outcomes as the "almost axiomatic" solution (Acs & Storey, 2004, p. 871) for increasing economic strength in developed regions (Grundstén, 2004; Klapper et al., 2010; van Burg & Romme, 2013; Wennekers et al., 2010). However, entrepreneurial

outcomes require increased entrepreneurial intention (Atherton, Frith, & Pool, 2007), and improving intention requires a grasp of its inhibitors (Talebi et al., 2012).

#### Purpose of the Study

The present study investigates the influence of perceived failure intolerance on entrepreneurial intention among potential entrepreneurs in the rural Midwest. The study further determines the influence of certain demographic variables and self-efficacy on the ability of the potential entrepreneur to overcome perceived failure intolerance.

#### Research Objectives

The present study will address the purpose of the study through three research objectives, identified here as RO2, RO3, and RO4. An additional research objective, RO1, is necessary because before the research can be understood, the context of the data must be understood; the study will therefore describe characteristics of the participants such as experience, role, and demographics (Seagle & Iverson, 2001).

- RO1: Describe the characteristics of the study's participants, including age, gender, educational level, region location, and work experience that is relevant to the study.
- RO2: Explore perceptions of failure intolerance (PFI) on individual entrepreneurial intention among residents of the rural Midwestern United States.
- RO3: Describe the influence of demographic variables (age, educational attainment, gender, entrepreneurial parent, and geographic demographics) on the ability of potential entrepreneurs to overcome PFI among residents of the rural Midwestern United States.

RO4: Explore the influence of self-efficacy on the ability of potential entrepreneurs in the rural Midwestern United States to overcome PFI.

### Conceptual Framework

This section presents a conceptual framework or model which is based on the four research objectives. Osterwalder (2004) explains that “a model is a set of propositions or statements expressing relationships among constructs” (p. 5). Ajzen’s (1991) theory of planned behavior (TPB) is the foundational theory of this model because intention models better predict behavior than situational or personality variables (Krueger, 2000), and because the theory of planned behavior in particular has “proven to be robust across national contexts” (Shneor, Camgöz, & Karapinar, 2013, p. 781). The model is based on three constructs (Kreuger et al., 2000), which are attitude toward the behavior, subjective norms, and perceived behavioral control. An advantage of the TPB model is that aggregation of the three constructs is essential to intention (Ajzen, 1991). The conceptual framework for the present study (Figure 2) combines concepts for the purpose of understanding interaction. The conceptual framework proposes that in the environment of the rural Midwest, perceived failure intolerance is a perceived local social norm that stifles intention, preventing individuals from reaching the pre-nascent stage, which equates with entrepreneurial intention.

Research Objective One is proposed because the context of the data must be understood; the study will therefore describe characteristics of the study’s participants such as experience and role (Seagle & Iverson, 2001). Research Objective Two (RO2) proposes that perceived failure intolerance (PFI), as a subjective norm, may inhibit entrepreneurial intention (Bosma, Acs, Autio, Coduras, & Levie, 2012; Glaeser & Kerr,

2009; Grilo & Thurik, 2005; Landier, 2002; Nielsen, 2012; Rideout, 2012; Smith, Glasson, & Chadwick, 2005). Self-efficacy (RO4) is connected to perceived behavioral control (Grundstén, 2004) encouraging intention (pre-nascency) and behavior. The study also seeks understanding of the influence of five demographic variables (RO3) on intention.

Glaeser and Kerr (2009) postulate that the correlation between demographics and actual intention failure intolerance is weak. Further, demographic variables may not be relevant in the Midwest region, based on Rideout's (2012) assertion that "entrepreneurs may be more alike to each other, regardless of sex, creed, or culture, than they are to non-entrepreneurs" (p. 23). But some demographic variables may correlate with intention and behavior (Rideout, 2012), particularly on the topic of failure intolerance (Burchell & Hughes, 2006). Both entrepreneurial intention and self-efficacy correlate with gender and native culture, for example (Shneor et al., 2013). The variables are age (Schwarz, Wdowiak, Almer-Jarz, & Breiteneker, 2009), educational attainment (Carree & Thurik, 2010; Saulo, Kickul, & Brett, 2008), gender (Schwarz, et al, 2009), being reared by an entrepreneurial parent (Fairlie & Robb, 2007; Krueger, 1993; Rideout, 2012), and demography of location, or demographic traits of the region, inasmuch as regions can differ within nations (Li, Young, & Tang, 2010).

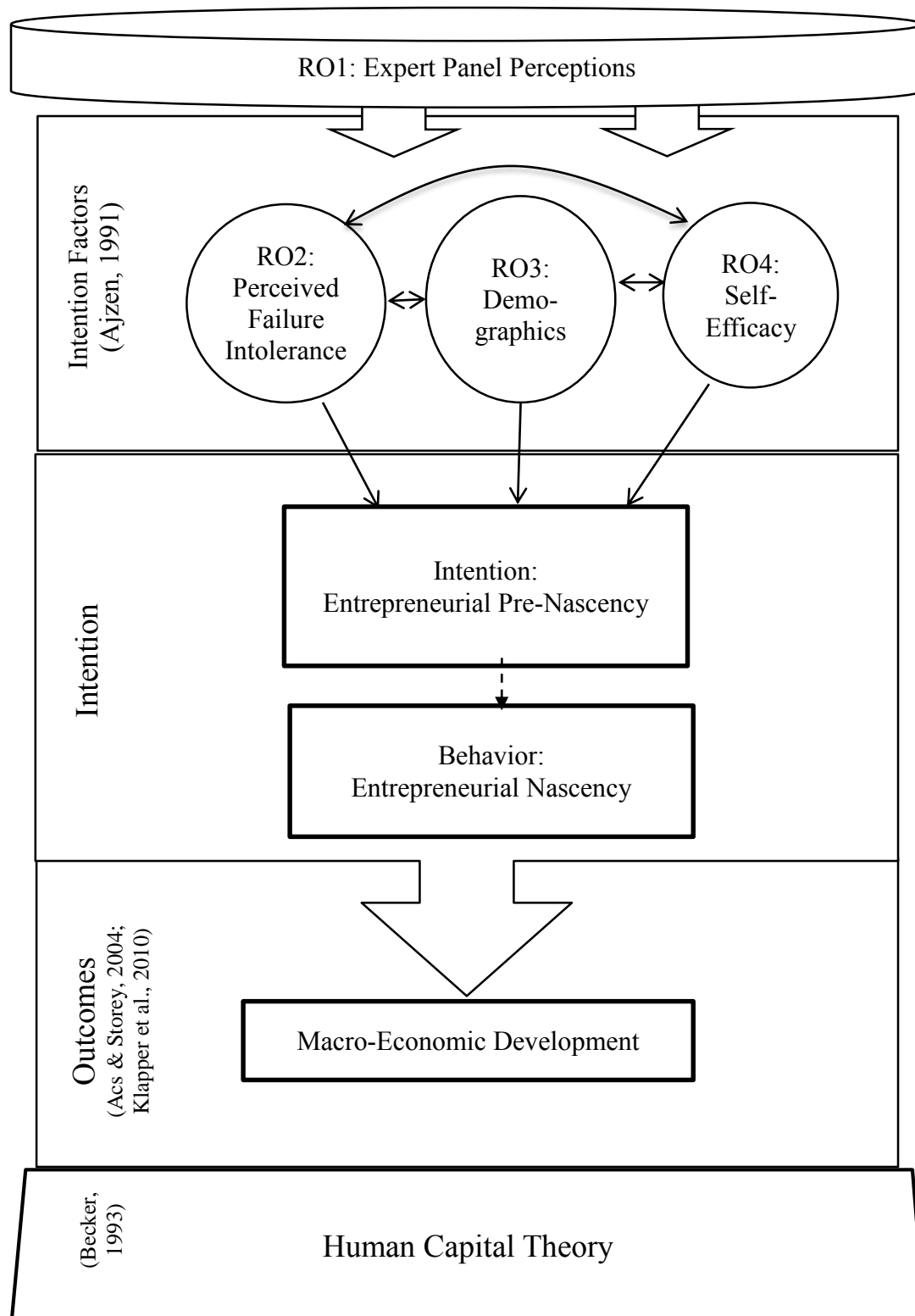


Figure 2. Conceptual Framework, employing the Theory of Planned Behavior

The conceptual framework integrates the entrepreneurial intention-nascency link: intention, or pre-nascency, leads to the macro-economically desirable behavior of nascent start-up activity (Atherton et al., 2007; Autio, Klofsten, & Ulfstedt, 1997; Fogel, 2001; Kolvereid, 1996; Krueger, 2000; Nguyen, Bryant, Rose, Tseng, & Kapasuwan, 2009). The framework therefore equates behavior with the term “nascency” and intention with pre-nascency based on the Global Entrepreneurship Monitor four-stage outcomes (Brixy, Hessels, Hundt, & Sternberg, 2008; Kelley, Singer, & Herrington, 2011) to standardize terminology for all participants. Maintaining clarity of definition is important (Markman, Balkin, & Baron 2002; Ucbasaran, Westhead, & Wright, 2001), but disagreement continues on definitions of terms in the entrepreneurship research field, including the term *entrepreneur* (Liñán, 2004). Human capital development theory (Becker, 1993; Lee, Florida, & Acs, 2004; Nafukho, Hairston, & Brooks, 2004; van Praag, 2006) is another underlying theory in the conceptual framework. The principle asserts that economic outcomes can be impacted by human capital investments (Schultz, 1961).

### Limitations

In the present study, the research design choice is guided by recommendations from various entrepreneurship researchers regarding methodologies (Bosma, 2009; Wennekers et al., 2010; Chandler & Lyon, 2001; Davidsson & Wiklund, 2001; Delgado et al., 2010; Dimov, 2007; Fairlie & Robb, 2007; Foss, Klein, Kor, & Mahoney, 2008; Krueger, 1993; Low & MacMillan, 1988; Markman et al., 2002; Rideout, 2012; Saulo et al., 2008; Schwarz et al., 2009; Stewart, 2002; Ucbasaran et al., 2001), but is still limited in several ways. First, generalizability of the study’s results is limited because the

Delphi methodology does not employ random sampling (Skulmoski & Hartman, 2007). Second, another limitation is accuracy, as changing attitudes and opinions may affect Delphi results (Sackman, 1974). A third potential concern is the lack of participant accountability that Powell (2003) asserts arises from the methodology's anonymity requirement. Fourth, participants may also be prejudiced by personal agendas in Delphi studies (Nambisan, Agarwal, & Tanniru, 1999), creating potential variance between the reality in the region and participants' explanations of the situation.

#### Delimitations

Differences exist between researchers in interpreting definitions, which is often a concern in the entrepreneurship research field (Markman et al., 2002; Nielsen, 2012). The issue creates a potential for misunderstandings between participants. A concern with purposive sampling also arises because the process of choosing qualified participants in the Delphi method is affected by the fact that the definition of expert is not uniformly understood among Delphi-experienced researchers (Hasson, Keeney, & McKenna, 2000). Finally, the sample size was kept small to avoid dilution by less-qualified participants, but the small sample size could also affect validity.

#### Definition of Terms

Entrepreneurship can be a significant economic development strategy, but a substantial barrier is the lack of definition consensus among researchers in various disciplines (Ahmad & Seymour, 2008; van Burg & Romme, 2013). Following are definitions of key terms used in the study.

1. *Entrepreneurship* — Carree and Thurik (2010) define entrepreneurship as “the manifest ability and willingness of individuals, on their own, in teams, within and

outside existing organizations to perceive and create new economic opportunities (new products, new production methods, new organizational schemes, and new product–market combinations), and to introduce their ideas to the market in the face of uncertainty and other obstacles by making decisions on location, form and the use of resources and institutions” (p. 564).

2. The *field of entrepreneurship* — “the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (Shane & Venkataraman, 2000, p. 218).
3. *Entrepreneur* — Rather than the conventional dichotomous designation, the behavior definition in this paper will divide entrepreneurs into four ordinal categories based on the work of the Global Entrepreneurship Monitor: (a) pre-nascent entrepreneur, (b) nascent entrepreneur, (c) owner (up to 3.5 years), and (d) established owner (over 3.5 years) (Kelley et al., 2011).
4. *Entrepreneurial cognition* — refers to “the knowledge structures that people use to make assessments, judgments or decisions involving opportunity evaluation and venture creation and growth” (Mitchell et al., 2007, p. 2), and is a field with a distinct research stream (Mitchell et al., 2007). As examples, Rideout (2012) includes competencies such as opportunity identification, motivation, creativity, skillsets and decision making, and heuristic mindsets.
5. *Human capital* — “Human capital is the competence held by people” (Greve, Benassi, & Sti, 2010, p. 10) and encompasses education, market experience, artistic development, health, and “other skills and experience” (Green & Haines, 2012, p. 117).



6. *Social capital* — Social capital is the “investment in social relations with expected returns in the marketplace” (Greve et al., 2010, p. 10) and it involves “trust, networking and relationships” (Tanas & Saeed, 2007, p. 179).
7. *Culture* — The definition is an “anthropological or social framework to describe a set of attitudes, beliefs, customs, mores, values and practices which are common to or shared by any group” and denotes “certain activities that are undertaken by people” (Throsby, 2001, p. 4).
8. *Entrepreneurial Intention* — Entrepreneurial intention refers to the plan or hope to start a venture, based on the Shapero-Krueger Model of Entrepreneurial Intent (Rideout, 2011), which has become a standard for research in the field (Carsrud & Brannback, 2009).
9. *Nascent Entrepreneur* — Based on Wennekers et al. (2005), this term refers to an individual who is actively endeavoring to start a business.
10. *Pre-Nascent Entrepreneur* — an individual exhibiting intention (Kelley et al., 2011).
11. *Failure* — refers to a business venture ceasing operations, and does not include divestiture (Ucbasaran et al., 2001).
12. *Perceived Failure Intolerance* — the perception of “stigma attached to failure which inhibits individuals from taking the risks associated with starting new businesses” (Burchell & Hughes, 2006, p. 1).
13. *Bricolage* — In the entrepreneurship field the term refers to building with resources already at hand (Baker & Nelson, 2005) or creating “something from

nothing by exploiting physical, social, or institutional inputs that other firms rejected or ignored” (Baker & Nelson, 2005, p. 329).

14. *Locus of control* — refers to how individuals attribute control over their lives, either internal to themselves or to some outside source (Rotter, 1954).
15. *Self-efficacy* — “a person’s estimate of his or her capacity to orchestrate performance on a specific task” (Gist & Mitchell, 1992, p. 183).
16. *Heuristics* — refers to techniques for problem solving based on experience or as “adaptive strategies that evolved in tandem with fundamental psychological mechanisms” (Goldstein & Gigerenzer, 2002, p. 75).
17. *Entrepreneurial level* — a region’s entrepreneurial level is the percentage of business owners as a percentage of the labor force, and is related to the level economic development (Grilo & Thurik, 2005).
18. *Delphi Expert* — experts chosen for work in a specific area and for credibility with the target audience (Powell, 2003).

#### Summary

Entrepreneurial outcomes stemming from increased entrepreneurial intention are essential for economic development, which prompts researchers to discover the crucial catalysts and inhibitors of intention. The body of research in the entrepreneurship field includes studies on the influence of environment, including subjective norms of culture, on intention in order to strategize increasing intention. Borrowing from the theory of planned behavior, the present study investigates one proposed antecedent of entrepreneurial intention, a community’s PFI, based on the interaction between environmental and individual perceptions. In order to investigate PFI’s influence in the

rural Midwest, the present study proposes three research objectives which investigate PFI, self-efficacy, and the potential role of demographics in PFI.

The presentation of the research study is organized into five chapters. This chapter provides an overview of relevant background issues and presents the conceptual framework for the study. Chapter II presents an overview of relevant literature, beginning with the entrepreneurship field in general and followed by a convergence of several relevant research streams into a discussion of PFI. Chapter III outlines the research design and methodology of the present research study. Chapter IV analyzes the research findings, and Chapter V provides conclusions and recommendations.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

This chapter presents research on PFI in entrepreneurship. The chapter introduces entrepreneurship research, then examines the importance of entrepreneurship to economic development. The chapter further presents the theory of planned behavior (TPB), explaining intention, cultural influences on that intention, and human capital theory's bearing on intention. The chapter concludes with an explanation of self-efficacy and of how failure intolerance impacts entrepreneurial intention.

Amit, Glosten, and Muller (1993) observe that the interdisciplinary nature of entrepreneurship makes developing a “complete and robust theory” (p. 815) too challenging. Entrepreneurship studies should combine concepts from disciplines such as economics, anthropology, management science, social capital, human capital, sociology, and psychology because, despite interdisciplinary study's challenges, the field must be researched through a multi-disciplinary approach (Chattopadhyay & Ghosh, 2008). Caliendo and Kritikos (2012) suggest that “approaches at the intersection of psychology and economics are particularly relevant for conducting entrepreneurship research” (p. 79). As with other social sciences, a review of research literature in the entrepreneurship field is aided by a multidisciplinary approach, because the complexity of the entrepreneurship field “involves systems, specificity, subjectivity, and time” (Stewart, 1991, p. 78).

Researching entrepreneurship is impacted by its various definitions. According to van Burg and Romme (2013), “The current landscape of entrepreneurship research is to a large extent multi-paradigmatic in nature, including fundamentally different

perspectives on what entrepreneurship is, how entrepreneurial opportunities are formed, what determines the performance of new ventures, and so forth” (p. 2). Multiple definitions exist for the term entrepreneur (Liñán, 2004). According to Ucbasaran et al. (2001) among researchers “there is a lack of an agreed definition of entrepreneurship and a concern over what entrepreneurship constitutes as a field of study” (p. 57). The Organization for Economic Co-operation “has contributed to the confusion, since virtually every study focused on entrepreneurship has presented a different definition of the term” (Ahmad & Seymour, 2008, p. 5). Contributions from diverse fields may impact this confusion, according to Peneder’s (2009) observation that the fields are “further fragmented in competing strands and research traditions” (p. 2). The resulting challenge is that “different definitions of an entrepreneur make comparisons between studies difficult” (Nielsen, 2012, p. 3).

Various researchers have attempted to understand the numerous definitions by categorizing them into groups. Gartner (1988) attempts to divide entrepreneurship definitions into two general approaches: the trait approach and the behavior approach. Naudé (2008) divides entrepreneurship definition views by economists into three approaches: (a) occupational (self-employed or not); (b) motivational, such as Schumpeter’s (1934) innovation or Kirzner’s (1973) opportunity alertness; or (c) an outcomes definition.

Naudé’s occupational definition of entrepreneurship is commonly used to simplify the discussion, but is limiting, as entrepreneurship “is an activity, not an occupation” (Martin, Picazo, & Navarro, 2010, p. 131). Henrekson’s (2007) research also considers the dichotomous definition method inadequate, demonstrating that using

self-employment as an empirical proxy for productive entrepreneurship is problematic, because self-employed individuals are not necessarily intentional agents of change, but merely seeking a “better chance for making a living” (p. 6). The motivational definition of entrepreneurship defines the entrepreneur as arbitrage (Kirzner, 1973) in which “entrepreneurship is a mechanism through which temporal and spatial inefficiencies in an economy are discovered and mitigated” (Shane & Venkataraman, 2000, p. 219). One may also refer to his interpretation as “discovery entrepreneurship” (Foss & Klein, 2010, p. 146). The outcomes definition of entrepreneurship is to group these definitions through the lens of innovation vs. arbitrage (Naudé, 2008). These researchers represent two groups, one defining entrepreneurs as innovators or Schumpeterian agents of change engaging in creative destruction (Schumpeter, 1942), in which entrepreneurship is “the crucial engine driving the change processes” (Shane & Venkataraman, 2000, p. 219).

Peneder’s (2009) work concludes that entrepreneurs seek opportunities, but must innovate in order to stay viable, something that some individuals do better than others. In the macro-economy, entrepreneurs serve the economic function of market coordination. The bricolage interpretation of entrepreneurship includes both the Schumpeter definition, creating value from nothing (Baker & Nelson, 2005), and the Kirzner method, identifying opportunities by viewing linkages (Garud & Karnøe, 2003). Examples of definitions for the term *entrepreneur* over time have included: starting a business where one did not exist before, maintaining its existence for five years, and employing eight persons (Hornaday & Aboud, 1971); holding an ownership stake in a company newly built where none existed before (Howell, 1972); and a person who combines production factors to create the first brand in an industry (Lachman, 1980); and

a historically early definition as an agent who unites means of production to create value and make a profit (Say, 1803/1964).

The Carree and Thurik (2010) all-encompassing definition focuses on outcomes, but includes nascency-stage activities such as business-model search, with *willingness* used as proxy for the pre-nascency stage. “Entrepreneurship is the manifest ability and willingness of individuals, on their own, in teams, within and outside existing organizations, to perceive and create new economic opportunities (new products, new production methods, new organizational schemes, and new product–market combinations), and to introduce their ideas to the market in the face of uncertainty and other obstacles by making decisions on location, form and the use of resources and institutions” (p. 564).

To maintain clarity on the definition of the term entrepreneur, the present study divides entrepreneurs into four ordinal categories based on the work of the Global Entrepreneurship Monitor (GEM): (a) pre-nascent entrepreneur, (b) nascent entrepreneur, (c) business (up to 3.5 years) owner, and (d) established (over 3.5 years) owner (Bishop & Nixon, 2006; Kelley et al., 2011). A pre-nascent entrepreneur is an individual exhibiting intention, and a nascent entrepreneur is engaged in the set up a new business (Kelley et al., 2011). In the present study, the term *potential entrepreneur* (also used by GEM) combines pre-nascent and nascent entrepreneurs because individuals in both categories are affected by intention and because *potential* is a term more familiar to entrepreneurship developers.

## Role of Entrepreneurship in Local Economic Development

Despite their disagreement over definitions, researchers generally agree that entrepreneurship is a key driver of economic development (Bosma et al., 2012). In recent years the link with economic development is considered “almost axiomatic” (Acs & Storey, 2004, p. 871). According to a synthesis of relevant research, however, the value of entrepreneurship to economic development depends on several variables; that synthesis is presented in this section. Three categorizations are the country-development stage, the positive vs. negative business model, and the motivation for launching.

### *Country Development Stage Perspective*

Research from Wennekers et al. (2010) indicates that the impact of entrepreneurship depends on a given economy’s stage of development. Stage one refers to factor-basis (extraction, raw materials) economies. Entrepreneurship declines during the second stage, when economies are moving to efficiency-basis or mature manufacturing. During stage two, high-compensation jobs from growing companies beckon managers from potential entrepreneurial opportunities. As a country enters stage three, the innovation phase (United States and Europe), entrepreneurship levels should and do increase again. The Wennekers et al. (2010) analysis indicates that the relationship between entrepreneurship and economic development is linear, but the line is U-shaped because entrepreneurship dips during stage two and then again expands. Acs and Szerb (2007) therefore recommend that stage-two “countries should focus on increasing human capital, upgrading technology availability and promoting enterprise development” (p. 109). Entrepreneurship’s direct impact on economic growth is thus greater for stage-three economies like Germany or Canada and for stage-one countries



like Bolivia and Nigeria (van Stel, Carree, & Thurik, 2005). Stage-two regions (such as Japan in the 1960s or Taiwan in the 1970s) should promote efficiency and scale and advanced economies should encourage startups (Wennekers et al., 2005).

While entrepreneurship should not be urged by policy makers in stage two, entrepreneurship should also not be discouraged, because the lag time between when entrepreneurial emphasis will suddenly be desirable in stage three and the time required to re-ignite an entrepreneurial culture might require several years (Acs & Szerb, 2007). The reasoning is that institutional and environmental conditions “are more quickly sensitive to policy reforms, whereas individual-level factors may require more time to be affected by public policy” (Acs et al., 2008, p. 232).

#### *Positive vs. Negative Business Models Perspective*

Another perspective in the available research regarding the link between entrepreneurship and economic development is delineating the differing outcomes of positive ventures and negative business models (Naudé, 2008). Negative entrepreneurship includes unproductive (such as rent-seeking activities) and destructive (unethical) business models (Baumol, 1990) that do not augment economic development. A contrary perspective by Henrekson (2007) proposes that Ricardian rent-seeking is the very definition of entrepreneurship, however, regarding entrepreneurship as “a continual quest for economic rents, i.e. rates of return exceeding the risk-adjusted market return” (pp. 2-3) and those returns may come from good or bad activities (Naudé, 2008).

#### *Motivation Perspective*

Another alternative explanation is to divide entrepreneurship into two levels (Bosma, 2009). The first is non-ambitious entrepreneurship, such as a nail salon or taco

franchise. Primo and Green (2009) use the term *replicative entrepreneurship* for describing this category. The second category is ambitious entrepreneurship, such as a bio-technology start-up. Acs et al. (2008) use different terminology (necessity entrepreneurship vs. opportunity entrepreneurship) but concur by citing a study of 11 countries: “opportunity entrepreneurship has a positive significant effect on economic development, whereas necessity entrepreneurship has no effect” (p. 219). Unfortunately, many economic development programs are designed to support non-ambitious small businesses that contribute little to an economy “in terms of productivity or growth” (Naudé, 2008, p. 28).

Wennekers et al. (2010) considers non-ambitious/self-employment/replicative entrepreneurship important because any non-ambitious effort “increases the flexibility and productivity of the economic system and contributes to a higher degree of job satisfaction and job creation” (p. 4). In other words, non-ambitious self-employment may be beneficial to individuals, but does not drive economic growth the way that ambitious entrepreneurship creates base economic activity, that “is the engine of growth” (Blair & Carroll, 2009, p. 99). Stated simply, a home-based business selling exclusively to neighbors creates one job but does not contribute to a local economy like a large manufacturer. Moretti (2012a) posits that the multiplier effect from a start-up or new entrant manufacturer creates three service/support jobs in a community for each job the firm creates, and that an *innovation* firm creates five service/support roles for each individual hired. Bosma et al. (2012) enhances that dichotomous distinction by partitioning entrepreneurship endeavors into three levels: (a) ambitious entrepreneurship; (b) less-ambitious solo activity, and (c) intra-preneurship. The latter term refers to

individuals or teams acting entrepreneurially within a current employer to add more value by combining resources and opportunity to fill a market need (Shane, 2003). Therefore, entrepreneurship, at the right time and in the right way, benefits economic development. If a given national or regional economy is in either the stage one/factor stage or stage two/innovation stage, that economy should encourage business models both positive and ambitious.

### Environmental Antecedents of Entrepreneurial Culture

The previous section addressed issues related to entrepreneurship's contribution to economic development. Developing entrepreneurship is a significant departure from typical economic development practice, as entrepreneurship is a resource-based theory approach seeking to identify native resources within a region that "gestates entrepreneurial activity" (West, Bamford, & Marsden, 2008, p. 15), rather than investing capital from outside the region. The purpose of this section is to present insights into how "entrepreneurial context and individual cognitive mechanisms interact to create entrepreneurial attitudes, intentions and behaviors that drive new means-ends relationships" (Mitchell et al., 2007, p. 17).

Because "the creation of an innovation economy driven by the rapid expansion of start-ups has never been more imperative" (Blank, 2013, p. 7), researchers seek solutions to the issue of encouraging entrepreneurship in a community, ideally creating an entrepreneurial community (Smith, 2005). Asking why some individuals are successful creating start-ups while others are not (Baron, 2004) becomes useful in order to ensure that efforts have a positive impact, because supporters may mistakenly harm start-up outcomes (Gibb, 1999). Researchers conclude that specific conditions encourage

entrepreneurial intention, and that intention leads to action (Autio et al., 1997; Fogel, 2001; Krueger, 2000; Nguyen et al., 2009). Researchers have cited various antecedents of entrepreneurship such as motivational (Foss & Klein, 2010), innovation (García-Morales, Llorens-Montes, & Verdú-Jover, 2006), opportunity discovery (Foss et al., 2010), behavioral (Fayolle, Gailly, & Lassas-Clerc, 2006), and corporate entrepreneurship (Zahra, 1986). Some antecedents are environmental, and some are individual, such as cognitive or trait-based factors (Rideout, 2012).

Research on the topic of entrepreneurship is hampered by the inconsistency between research levels, which refers to societal units such as individual, firm, or region. Davidsson and Wiklund (2001) therefore recommend care in choosing a level for study. According to Smith (2005), for example, entrepreneurship development programs are often not successful because they focus on the organization rather than on the person. A larger problem may be that much of the research focuses on the differences between nations, but the employment creation effect is not equal between regions, particularly between metro and non-metro areas (Li, Cheng, & Haynes, 2011). A review of relevant literature in entrepreneurship reveals environmental elements considered antecedents of entrepreneurial intention. Following are elements of local conditions external to the firm or entrepreneur that may influence intention and start-up rates.

#### *Positive Role Models*

The “proximity effect” and “network effect” derive from uneven distribution of entrepreneurial activity because of the visibility of other entrepreneurs (Fornahl, 2003). Intention is benefited by the presence of other entrepreneurs, as Giannetti and Simonov

(2005) suggest that “in municipalities where entrepreneurship is more widespread, individuals are more likely to become entrepreneurs, even after controlling for individual characteristics and local conditions such as wages, rate of unemployment, and employment in the public sector” (p. 21). Gartner (1985) concurs by including the presence of experienced entrepreneurs as a factor in encouraging potential entrepreneurs. The presence of local entrepreneurial examples thus encourages potential entrepreneurs.

#### *A Positive Regulatory Environment*

Regulations, including protection of creditors and enforcing of contracts, are necessary for commerce (Giannetti & Simonov, 2005), but too many rules and procedures discourage entrepreneurs (Fogel, 2001). Incentivizing through fewer regulations is one of several advantages at the national level that make the United States a leader in entrepreneurship (Verheul, Bosma, Van Der Nol, & Wong, 2002). Gartner (1985) also lists governmental influence as an environmental variable. Leeson and Boettke (2009) are more specific in indicating secure property rights helps entrepreneurship thrive by incentivizing entrepreneurs to “place bets” on new ideas.

Governments may also compensate for the lack of necessary institutions in transition economies and turbulent environments (Smallbone, Welter, Voytovich, & Egorov, 2010), just as private institutions may compensate to fill the void of a government’s inefficacy in less developed regions (Leeson & Boettke, 2009). Examples of negative governmental influence include minimum capital requirements, regulatory cost, the number of procedures required, and “administrative bottlenecks” (van Stel, Storey, & Thurik, 2007). The impact of government regulations is not only direct in the

case of altering short-term incentives for entrepreneurs, but over a period of time, government actions may change the culture. Aidis, Estrin, and Mickiewicz (2007) persistently cite low Russian entrepreneurial rates due to Soviet era policies where business owners were “often deemed criminals for making a profit and the ideology allowed for a punishment-oriented ‘inspection culture’ to develop, where discretionary power of officials led to corruption” (p. 5).

According to research by the World Bank (Klapper & Love, 2010), small regulatory reforms such as simplified business registration, a reduction in filing procedures, or a decrease in time or cost of registration, etc. do not significantly impact business creation rates. Instead, Klapper and Love (2010) recommend large-scale reforms, particularly for weaker economies. Therefore, researchers do not agree on the degree of impact or on prescription, but do agree that governments may influence entrepreneurship positively or negatively. A positive regulatory environment is less relevant for local entrepreneurship, however, where significant regulation systems are not governed, as smaller regulations have little impact. In brief, researchers do not agree on the degree of influence that regulations exert on entrepreneurial psychology, but consider regulatory environment an entrepreneurial antecedent.

### *Community Support*

Gartner’s (1985) assertion that community support is a vital element to entrepreneurship is supported by a logistic regression test of selected rural communities by Kilkenny, Nalbarte, and Besser (1999). “The interaction effect of an entrepreneur's service to the community, reciprocated by community support of the business, is the single most significant determinant of business success among dozens of indicators and

characteristics” (p. 231). However, not every potential entrepreneur in the community requires the same level of support. Ambitious entrepreneurs require less support than most people, but fostering the perception of support is important to increase the percentage of people trying out business ideas. Leaders in communities with high entrepreneurial levels believe that cooperation and building synergy will help everyone and support potential entrepreneurs (Gruidl, Stout, & Markley, 2014).

### *Perceived Feasibility*

Krueger (2000) asserts that successful organizations (communities) increase perceptions of feasibility, i.e. agents believe 1) that they may overcome obstacles, and 2) think that necessary resources are available. As an intervention to increase perceived feasibility, Krueger recommends Weick’s (1979) strategy of “small wins,”<sup>2</sup> since a region or community may not immediately change overall economic structures. Perceived feasibility is primarily an environmental variable based on environmental conditions, but is also based on self-assessment. Souitaris, Zerbinati, and Al-Laham (2007) advise that “entrepreneurship education should improve the perceived feasibility for entrepreneurship by increasing the knowledge of students, by building confidence and by promoting self-efficacy” (p. 571). Perceived feasibility is related to resource availability because the perception of resource availability increases perceived feasibility in communities as well as organizations, according to Kuratko, Montagno, and Hornsby (1990).

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<sup>2</sup> Weick’s strategy cites the example of Alcoholics Anonymous being successful not because they push for lifetime abstinence, but by encouraging members to “to stay sober one day at a time” (Weicks, 1984, p. 42).

### *Resource Availability*

Flynn (1993) asserts that infrastructure plays a role in “spawning and nurturing new and existing organizations” (p. 58). The availability of supportive services, access to transportation, and the availability of land or facilities are some of the key elements required for new venture creation (Gartner, 1985). The particular role of universities in creating the region’s entrepreneurial viability continues to grow, as technology plays an ever-larger role in ambitious entrepreneurship (Bercovitz & Feldman, 2006).

The University of Waterloo as “an engaged institution,” has affected the Ontario area’s entrepreneurial environment positively (Bramwell & Wolfe, 2008), and other examples of innovative universities correlating with a positive entrepreneurial culture have been cited by Youtie and Shapira (2008), who refer to Georgia Tech for its role as an innovation hub, demonstrating that universities may move “from a knowledge storehouse (mode 1) to a knowledge factory (mode 2) to a knowledge hub (mode 3)” (p. 1201), and thus impact the community’s entrepreneurial intention. However, not all researchers agree with the necessity of universities in a region’s entrepreneurial growth. Moretti (2012a) argues that the role of the university “is complex” (p. 194), submitting, for example, that the University of Washington did not create Microsoft. Conversely, the university has thrived because of Microsoft’s contributions (Moretti, 2012b).

Another resource crucial to entrepreneurship is the availability of financial capital. Gnyawali and Fogel’s (1994) five-element framework for understanding entrepreneurial environment concurs that financial assistance should be available for would-be entrepreneurs. Samila and Sorenson’s research (2011) indicates that one of the reasons that increasing the venture capital supply in a region increases new start-up rates



is that “would-be entrepreneurs in need of capital may incorporate the availability of such capital into their calculations when trying to decide whether to start their firms” (p. 347).

In addition to supportive services, university accessibility, and financial capital, other helpful resources include the presence of skilled workers, and access to customers or new markets (Gartner, 1985).

### *Perceived Desirability*

Entrepreneurship is more likely to flourish when a given society views entrepreneurship as a desirable career choice (Fogel, 2001). Perceived desirability based on social status is a known antecedent to entrepreneurial intention (Krueger, 2000). A collective perception of various community conditions improves the overall perceived desirability of entrepreneurship as a career choice. Potential entrepreneurs include several metrics in desirability during the intention-development process. For example, the view of Low, Henderson, and Weiler (2005) is that the perception of breadth of existing entrepreneurial activity that helps a region “achieve long-term job growth and regional economic prosperity” impacts intention (p. 64). And while breadth is important, “the ability to generate high-value entrepreneurs may be even more important” (Low et al., 2005, p. 65) because a single entrepreneur hiring many people and earning significantly more revenue adds more economic value and improves others’ perceptions of desirability. Low et al. (2005) also measure the average income of existing entrepreneurs as a condition considered by pre-nascent entrepreneurs in determining whether or not to become entrepreneurs. Researchers describe social capital as a key component of intention-encouraging regions.

### *Social Capital*

The definition of social capital from Feldman (2001) is “the aligned characteristics of thick local networks and supportive local culture” which “is central to our conceptualization of conditions that promote local cluster development” (p. 865). Another way of explaining the term is that “social capital theory refers to the ability of actors to extract benefits from their social structures, networks, and memberships” (Davidsson & Honig, 2003, p. 308). According to a study by Eagle, Macy, and Claxton (2010), “the diversity of individuals’ relationships strongly correlates with the economic development of communities” (p. 1029). Understanding of the key role of network support is emphasized in Fogel’s (2001) work, which claims that new entrepreneurs spend almost half of their time networking for support and motivation, counseling, and access to opportunities, resources, and other information.

Social capital might be viewed differently by the entrepreneurial mind than by others, as “cognitive and behavioral aspects are one of the main components of social capital” (Tanas & Sae, 2007, p. 179). In practice, a virtuous cycle phenomenon exists as talented people are able to create more valuable social networks (Smith et al., 2005). Social capital is not therefore not equal in value. Smith, et al. (2005) indicate that “Although innovation necessarily involves social networks and collective action, it should not be overlooked that the quality of those networks is dependent on the quality or talent of individuals who have initiated particular developments” (p. 449).

Social capital’s value to entrepreneurs is not equal in all locations, appearing to vary according to a region’s population density. According to Nielsen (2012), rural entrepreneurs rely more on social capital than do their urban counterparts, who rely

comparatively more on creativity. Social capital is crucial for both rural and urban entrepreneurs, however, because social capital “facilitates the creation of new intellectual capital” for organizations through sharing and combining created knowledge (Nahapiet & Ghoshal, 1998, p. 242). Thus, regions fostering the creation of social capital experience better entrepreneurial outcomes by encouraging local cluster development, and clusters themselves are beneficial.

### *Presence of a Cluster*

The concept of agglomeration was first proposed by Alfred Marshall (1890) but has led to newer developments in economic research such as cluster theory, promoted by Michael Porter (1998), and new economic geography theory from Nobel laureate Paul Krugman (1991). The forces of agglomeration encourage concentration of industries into clusters in certain regions. For example, Facebook was born in Boston, but the firm was moved to Silicon Valley in order to reach critical mass because access to specialized capital and labor was necessary (Malik, 2011). Industries fortunate enough to be located in a strong cluster benefit by “higher growth in new business formation and start-up employment,” by “more formation of new establishments of existing firms,” and by better “start-up firm survival” (Delgado et al., 2010, p. 495). Residents of communities favored with agglomeration, such as Austin or Palo Alto, benefit from the synergy of other creative people (Florida, 2002) and the resources offered by a cluster (Porter, 1990). The agglomeration effect creates “relational capital” (Maillat, 1998a, p. 124), one more element of environments that encourage entrepreneurial intention and outcomes.

### *Reviewing the Importance of Environment*

Environmental factors related to entrepreneurship and entrepreneurial intention are introduced in this section because a number of researchers consider them important to understanding entrepreneurship (Autio et al., 1997; Fogel, 2001; Krueger, 2000; Nguyen et al., 2009; Van de Ven, 1993). Ucbasaran et al. (2001) argue that “the study of entrepreneurship is deficient if it focuses exclusively on the characteristics and behaviors of individual entrepreneurs and treats the social, economic, and political infrastructure for entrepreneurship as externalities” (p. 13). Ucbasaran et al. (2001) further suggest that “a social system perspective that considers external environmental conditions is appropriate for explaining the process of entrepreneurship” (p. 13).

Not all environmental conditions are equal; a cross-sectional study of 64 countries reveals the three primary environmental factors affecting entrepreneurial intention as (a) economic freedom, (b) property rights, and (c) political corruption (Dyck & Ovaska, 2011). The same study determined that startup cost, startup time, and the number of regulatory procedures were less relevant variables in affecting start-ups (Dyck & Ovaska, 2011). Some researchers, such as Markman, et al. (2002), reject the environment-as-enabler theory and consider many explanations about antecedents as inadequate, because “they overemphasize environmental factors and rationality” (p. 150).

Table 1

*Categorization of Antecedents into Theory of Planned Behavior Factors*

Attitude to the behavior	Subjective norms	Perceived control
Perception of resources	Positive role models	Presence of a cluster
Financial capital	Social capital existence	Perceived feasibility
Positive regulatory environment	Community support Desirability	

The entrepreneurial antecedents presented in this section may be further categorized by how they might relate to each of Ajzen's three overarching determinants of intention from the theory of planned behavior: attitude toward the behavior, subjective norms, and degree of perceived control. The categories are presented above in Table 1. Following is a section reviewing research on the influence of local culture on entrepreneurial intention.

*Influence of Culture on Entrepreneurial Readiness*

Linking culture and intention is the aim of this section. Cultural economist Throsby (2001) offers a definition of culture: "anthropological or social framework to describe a set of attitudes, beliefs, customs, mores, values and practices that are common to or shared by any group" (p. 4) or, the definition could have a "more functional orientation, denoting certain activities that are undertaken by people" (p. 4). Culture may also be broadly defined as any framework for expectations and values (Brislin & Yoshida, 1994). Lalonde (2010) found that unfortunately, existing anthropological

research relating to entrepreneurship focuses on venture creation, leaving entrepreneurship researchers to study intention. Subjective norms (Ajzen, 1991) are based primarily on culture (Stephan & Uhlaner, 2010) and Autio et al. (1997) define them as the individual perception of social pressure, being the mechanism by which individuals interpret societal or cultural norms. Research on the link between culture and intention is divided, however. The next two sections provide an overview of research about that link.

### *Culture Relevance to Entrepreneurial Intention*

The Kauffmann Foundation, “the world’s leading foundation in increasing understanding of and encouraging entrepreneurship” (Landes, Mokyr, & Baumol, 2012), presents seven key challenges particular to rural entrepreneurship, with culture at the top of the list (Smith, 2005). A study from Nguyen et al., including populations in three countries, sought to distinguish between influences from market institution and culture (2009), supporting the idea that culture impacts entrepreneurship, and concluding that among enablers of intention and confidence necessary for venture creation, “only culture has a significant impact on individuals’ desires to create new ventures” (p. 21). Another example supporting the culture-intention link is a study conducted by Yancy and Esteban (2007) indicating that one Spanish region exhibited far more entrepreneurial intention than the rest of the country as a result of observed native social traits, also encouraged by the presence of entrepreneurial role models.

Venkataraman and Sarasvathy (2008) note that “attractive” cultures exert a pull on youth, often a goal of economic developers (Smith, 2005). Creativity plays a large role in entrepreneurship (Lee et al., 2004), and culture is an antecedent of creativity

(Fillis & Rentschler, 2010). A considerable volume of literature has developed in recent years on the topic of creative communities (Miles & Paddison, 2005). The admonition for economic developers to build entrepreneurial cultures comes with a warning, however, as the threat to entrepreneurial culture “may paradoxically come from those who seek to support it” (Gibb, 1999, p. 27).

#### *Culture Relevance to Entrepreneurial Intention Countered*

Mitchell et al. (2007) suggest that “intermittently over the last half century, the question of whether behavior is to be explained by internal factors (the person) or by external ones (the environment) has captured attention in the field of psychology” (p. 11). This section introduces research concluding that the existence of adroit individuals, not culture, is the vital difference in a region’s entrepreneurialism. In analyzing quantitative data on local regions, Glaeser and Kerr (2009) find “limited evidence supporting the importance of demographics” (p. 624) and also “little evidence for a ‘culture’ of entrepreneurship” (p. 625). Talented people create more valuable social networks, so that “although innovation necessarily involves social networks and collective action, it should not be overlooked that the quality of those networks is dependent on the quality or talent of individuals who have initiated particular developments” (Smith et al., 2005, p. 449).

This reasoning suggests that entrepreneurs triumph over cultural situations because they think differently than non-entrepreneurs (Fagenson, 1993). Rideout (2012) indicates that “Entrepreneurs may be more alike to each other, regardless of sex, creed, or culture, than they are to non-entrepreneurs. In fact, the pursuit of entrepreneurial activity itself may give rise to certain shared values” (p. 23). A key example comes from

Venkataraman and Sarasvathy (2008), who cite the example of Josiah Wedgwood. In a “brutal and vicious” (p. 4) region, Wedgwood created infrastructure, several innovations (including a predecessor of the punch clock), and a market in order to make possible his enterprise that has ultimately lasted for over 200 years. The culture of the Burslem region experienced a “remarkable transformation” (p. 4) by the influence of Wedgwood’s efforts.<sup>3</sup>

Another argument for the prominence of the individual over the culture in producing entrepreneurial outcomes is that even in an “entrepreneurial culture,” not everyone may be an entrepreneur: within any society only a limited number of individuals have entrepreneurial attributes in sufficient degree to be actual or potential entrepreneurs (Papanek, 1962). As an example, Nicolaou, Shane, Cherkas, Hunkin, & Spector (2008) report a correlation between genetic factors and entrepreneurial tendency. Van der Loos, Koellinger, Groenen, and Thurik (2010) have been investigating the topic using genome-wide association studies. Attention Deficit Hyperactivity Disorder is also linked to higher entrepreneurial intention (Verheul, Block, & Burmeister-Lamp, 2015). Further, Keh, Foo, and Lim (2003) indicate that opportunity recognition is a cognitive phenomenon and that some individuals may not possess the requisite cognitive structures for successful opportunity recognition, regardless of environment.

#### *Summarizing the Relevance of Culture in Entrepreneurial Intention*

Based on the forgoing, researchers do not agree on the relevance of culture in entrepreneurial intention. A possible conclusion is that both internal and external factors are important, supported in a Kader, Mohamad, and Ibrahim (2009) study of the

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<sup>3</sup> This reasoning would argue, for example, that Cupertino did not make Steve Jobs; rather, Steve Jobs helped make Cupertino into what it has become, an idea supported by Moretti (2012b).



Malaysian rural environment. Li et al. (2010) refute the notion that national culture determines entrepreneurial tendency, using ethnic Chinese as an example. In seeking to learn why some Chinese regions have become more entrepreneurial than others, the team postulated that culture is not a major influence (because the regions all share the same culture yet experience different outcomes). However, the study concludes that not only can the culture in a given society influence or shape entrepreneurial activities, but entrepreneurial activities may also create or change an entrepreneurial culture, through symbiosis with other elements in the society, including the idea that new forms of entrepreneurship may both emerge and succeed in a short period, without a lengthy period of evolution through that symbiosis. New forms of entrepreneurship may suddenly emerge if accepted by the host society. New institutions also emerge, and are either embraced by the market or die (Li et al., 2010).

Lalonde (2010) surveyed the academic literature of both anthropology and entrepreneurship, aiming to draw conclusions about culture and entrepreneurial cognition, intention, and creation process. Lalonde's comparison of the two disciplines yields insights that both support and cast doubt upon the relevance of the culture-entrepreneurship assertion. First, the analysis revealed one shortcoming on the topic: culture encompasses many aspects, but studies concluding that national culture has no impact measure only some cultural values,<sup>4</sup> ignoring others. Secondly, Lalonde's research asserts that a cause vs. consequence issue also arises. Entrepreneurs think and

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<sup>4</sup> Hofstede's five primary constructs are power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity, long-term vs. short-term orientation (Hofstede, 2001), and the Lalonde research claims various Hofstede constructs are ignored in entrepreneurship-culture research.

act similarly, but the similarity might result from the act of entrepreneurship, rather than cultural influences.

As numerous researchers emphasize the importance of the individual and numerous others contrarily prioritize the environment, both are significant variables, and the interaction between them is similarly significant. Busenitz and Lau (1996) indicate that “Cross-cultural entrepreneurial outcomes, such as start-up intention and the venture-creation decision, depend upon cognitive structure and cognitive process that in turn depend upon a variety of variables grouped under the headings social context, cultural values, and personal variables” (p. 28). Refaat (2009) also supported defining entrepreneurship as an interaction of people and place, by claiming that “entrepreneurship involves the nexus of two phenomena: the presence of lucrative opportunities and the presence of enterprising individuals” (p. 85) and by referring to the Gartner model’s assumption (1985) that understanding entrepreneurship involves an interaction between individual, environment, process, and organization. Cardon, Stevens, and Potter (2011) suggest “that regionalism is an important factor in the allocation of blame for failure events in entrepreneurship, and that cultural sense-making about failure should be explicitly considered in our practical and scholarly work” (p. 80). In relation to entrepreneurship, human capital theory focuses less on the procurement of physical resources and more on individual ability, asserting that successful individuals interact with the environment both to extract and multiply value by beginning with their existing means (Read et al., 2010). Since changing a region’s culture is a long-term process requiring a generation change (Ryder, 1965), the next section presents an alternative approach, developing individuals.

## Human Capital Approach

Entrepreneurial intention may be viewed as a human capital issue rather than an environmental one, focusing instead on improving the entrepreneurial competencies of individuals (Kolvereid, 1996; Nafukho et al., 2004). Of the categories of environmental antecedents described earlier in this chapter, communities may influence only some; for example, a community may not reasonably affect national tax rates or federal regulations. Further, government may play a positive role in cluster formation (Porter, 1998), but top-down cluster building is almost always unsuccessful (Stam, 2009) and sometimes “government policies unwittingly work against cluster formation” (Romero-Martínez & Montoro-Sánchez, 2008, p. 321). Influencing human capital may be a better solution, since Lee et al. (2004) recognized human capital as an important antecedent of entrepreneurial outcomes. Further, “human capital is an important determinant of entrepreneur performance” (van Praag, 2006, p. 33). Baptista, Karaöz, and Mendonca (2007), therefore, consider human capital as one of the three core elements of entrepreneurial ability, along with social capital and entrepreneurial cognition.

### *Human Capital Definitions*

“Human capital is the competence held by people” (Greve et al., 2010, p. 10). Human capital is a concept dating back to Adam Smith (1776), but Theodore Schultz (1961), popularized the term, asserting that investments in human capital produced higher economic yields than investments in physical capital. These investments in an individual may be made by the individual himself (i.e. general knowledge from education), or by an organization, which Becker (1993) designates as specific knowledge. In general, human capital includes “schooling, a computer training course, expenditures

on medical care, lectures on the virtues of punctuality and honesty” (p. 15-16).

According to Green and Haines (2012), human capital encompasses education, market experience, artistic development, health, “and other skills and experience” (p. 117).

Human resources and workforce development are subsets of human capital theory. Developing specific skills on an organizational level is referred to as human resource development, “a process for developing and unleashing human expertise through organization development and personnel training and development for the purpose of improving performance” (Swanson, 2009, p. 4). Developing specific skills at the regional level is a function of workforce development, according to Green and Haines (2012), using the Harrison and Weiss (1998) suggestion to define workforce development broadly as the “constellation of activities from orientation to the work world, recruiting, placement and mentoring to follow-up counseling and crisis intervention” (p. 120), and which may also be defined as the role in “linking employers, workers, and training institutions” (Robinson & Green, 2011, p. 4). Examples of competencies attributed to entrepreneurial human capital include specific education (Davidsson & Honig, 2003); social capital (Coleman, 1988/1990); heuristics (Rideout, 2012); and entrepreneurial cognition (Mitchell et al., 2007).

#### *Human Capital Theory and Economic Development*

Human capital theory (HCT) is a departure from many economic development prescriptions, which focus on growth from exogenous inputs. Instead, HCT is concerned with “endogenous technological change, in that the accumulation of knowledge by forward-looking, profit-maximizing agents primarily drives long-run growth” (Romer, 1986, p. 1003). HCT is also a departure from “thinking about social problems around a

belief in exploitation of labor by capital” (Becker, 1993, p. 16). Romer’s work is important in linking human capital and entrepreneurship, viewing “human capital as a form of new growth theory, regarding knowledge creation as endogenous, and in responding to market incentives such as improved profit opportunities or better education” (Nafukho et al., 2004, p. 547). The increase of human capital by one individual or firm may positively impact the capabilities of other firms in a community (Romer, 1986).

Individuals thus impact the environment’s growth through new knowledge, but environment equally impacts collective human capital, as “the innovative milieu is thus not a special category of localized productive systems but a cognitive set on that the evolution of local organized systems depends” (Maillat, 1998b, p. 124) and which “forms the foundation, the sine qua non, of endogenous regional development” (p. 124). From this standpoint, entrepreneurship development is a human capital development challenge because: (a) communities have not been very successful at changing environments to assist entrepreneurship (Lyons, 2003); but (b) entrepreneurship research is increasingly moving toward cognitive aspects of human capital theory (Westhead, Ucbasaran, Wright, & Binks, 2005); (c) “entrepreneurs build new businesses regardless of resource availability” (Timmons, 1999, p. 150); and (d) human capital is fundamentally necessary for endogenous growth (Romer, 1986).

### *Human Capital and Entrepreneurship*

Creating innovation through entrepreneurship has become a policy priority and “one of the most relevant and straightforward instruments is human capital” (van Praag, 2006, p. 3). Human capital scholars may approach entrepreneurship by focusing

primarily “on three sets of research questions about entrepreneurship: (a) why, when, and how opportunities for the creation of goods and services come into existence; (b) why, when, and how some people and not others discover and exploit these opportunities; and (c) why, when, and how different modes of action are used to exploit entrepreneurial opportunities” (Shane & Venkataraman, 2000, p. 218). Nafukho et al. (2004) include both relevant education and tacit knowledge gained from relevant experience in human capital development related to entrepreneurship.

Entrepreneurs employ human capital in two ways. First, in new venture creation, by influencing intentions (Liñán & Chen, 2009) and in providing necessary entrepreneurial knowledge structures (Mitchell et al., 2007). Secondly, a function of entrepreneurs is to unite the human capital of a locality in order to move the bricolage process forward (Garud & Karnøe, 2003). Therefore, Nafukho et al. (2004) conclude that entrepreneurship is a human capital issue. Entrepreneurial human capital is not created equally, however; formal education correlates with intention, but the correlation between tacit knowledge, acquired from start-up experience, and intention is stronger (Davidsson & Honig, 2003). Social capital also correlates strongly with nascent entrepreneurship (Davidsson & Honig, 2003). Van der Sluis, van Praag, and Van Witteloostuijn (2007) indicate that human capital correlates strongly with nascent entrepreneurship, but that human capital’s correlation with venture success is not as strong.

A central concept is that human capital can be improved. Entrepreneurial-specific human capital may be improved with interventions, based on Kuratko’s assertion that “it is becoming clear that entrepreneurship, or certain facets of it, may be taught”

(2005, p. 580). So, investments in human capital affect entrepreneurial intention.

“Explicit human capital appears to be a good investment by increasing the probability of someone in the population entering into the nascent process” (Davidsson & Honig, 2003, p. 313). The return on investment in general human capital for individuals may actually be higher for entrepreneurs than for employees (Van der Sluis et al., 2007).

### *Human Capital Summary*

Human capital is a mature field of research regaining interest in entrepreneurship research (van Praag, 2006). Investments in human capital are those that improve the abilities of an individual or group, and some research concludes that improving entrepreneurial intention in a community is not an economic development problem, but rather, a human capital one, because the likelihood of individuals becoming nascent entrepreneurs increases as human capital increases (Liñán & Chen, 2009). In the entrepreneurial process, an individual leverages both human and social capital in order to create a start-up. But researchers agree neither on the importance of human capital, nor about how to improve it. The next section presents an issue that researchers consider to impact potential entrepreneurial human capital, failure intolerance.

### Failure Intolerance

To learn why and how entrepreneurs behave, Baron (2004) asks three questions: (a) why do some people decide to start companies; (b) why are some people better at recognizing opportunities, and (c) why are some people successful? This section addresses the first question. Various cultural constructs are related to environmental effects on entrepreneurial intention, and entrepreneurial impact on the environment, both individually and collectively. Based on the synopses of literature on culture and

entrepreneurship, and on human and social capital as they relate to entrepreneurship, potential for further research exploration exists.

Macey and Ayres (2005), in an overview of the “institutional features important to economic development,” include tolerance of failure as an important part of the “economic, social, and legal environment” (p. 397-398). This section narrows the focus to the impact of regional or community failure intolerance on the collective entrepreneurial intention, a theme developed by multiple researchers (Bosma et al., 2012; Glaeser & Kerr, 2009; Grilo & Thurik, 2005; Landier, 2002; Nielsen, 2012; Rideout, 2012; Smith et al., 2005).

### *The Concept of Failure*

Cardon, et al. (2011) assert that “failure is an important phenomenon in entrepreneurship” (p. 79). But according to Ucbasaran et al. (2001), the term itself may not be adequately defined, presenting a problem for researchers. Also, the task of finding research subjects proves challenging, both because a population of those who have failed isn’t readily accessible, as they either persevere in new projects until they become successful or blend back into the society of non-entrepreneurs (Read et al., 2010). Moreover, the concept of failure may in fact be a social construct invented in modern times, preventing longitudinal understanding (Sandage, 2005) and making the stigma of failure a relatively new concept (Read et al., 2010).

### *Failure as Tutor*

Failure may not be positive for many who experience it, exacting a social, financial, and psychological toll, including shame and embarrassment (Ucbasaran, Shepherd et al., 2012), and the grief, betrayal, frustration, and financial anxiety associated



with the failure may interfere with an entrepreneur learning from it (Heinze, 2011). But the failure may ultimately build resilience (Singh, 2011), and may be a powerful teacher, particularly in cultures that do not stigmatize failure (Venkataraman & Sarasvathy, 2008). Failure may result from personality flaws, but entrepreneurs may actually learn from their own failures, which may also provide visible lessons for other potential entrepreneurs (Benson & Han, 2011). Cope (2010) concurs that “the powerful and beneficial lessons of failure may give entrepreneurs a revitalised awareness of their abilities and a broader, more sophisticated knowledge base” and hence should be celebrated by policy-makers (p. 620). Learning from failure is not guaranteed, however, as “active learning from previous venture failure is possible, but only for certain individuals” (Nielsen, 2012, p. 15).

### *The Concept of Risk*

The entrepreneurial personality is a central topic in this research, as researchers still need to develop new ways to collect data on the topic (Caliendo & Kritikos, 2012). The conventional view of the entrepreneur is that of a risk-taker compared to risk-averse non-entrepreneurs, who opt for stable, predictable employment (Xu & Ruef, 2004). However, a Pillis and Reardon (2001) study indicates that research does not support the idea of entrepreneurs as risk-takers. Practicing entrepreneurs do have higher tolerance for ambiguity, but may be as risk averse as non-entrepreneurs (Acs & Audretsch, 2003). Agreement comes from a Norton and Moore (2006) simulation that tests risk tolerance in individual entrepreneurs, reflecting no difference between non-entrepreneurs and practicing entrepreneurs in risk-taking measures, but rather in risk assessment. In fact, nascent entrepreneurs may be more risk averse than non-entrepreneurs, according to Xu

and Ruef (2004), who call the idea of risk-tolerant entrepreneurs a myth. Rather than categorizing entrepreneurs as either risk takers or as risk avoiders, entrepreneurs are better described as “risk attenuators” as part of the entrepreneurial process (Rideout, 2012, p. 185). One risk to entrepreneurs is failure stigma.

### *The Effects of Failure Intolerance*

Vinod (2005) posits that “entrepreneurship thrives in societies willing to permit honest failures. Punishing failure will not encourage entrepreneurship in the long run” (p. 4). Instead, rewarding failure proves valuable because entrepreneurs can “learn from their mistakes, are often reborn and reinvigorate themselves and their organization” (p. 4). Failure intolerance refers to the concept of “whether failure is strongly stigmatized in a society” (Grilo & Thurik, 2005, p. 1118). Discouraging elements include stories from previously failed entrepreneurs and others about “uncertainty and business risk” (Cannarella & Piccioni, 2010) that amplifies “a sense of mistrust and diffused risk aversion” (p. 285). Results by Keh et al. (2003) also “indicate that risk perception mediates opportunity evaluation” (p. 125). Bosma et al.’s (2012) research also supports the empirical concept that community acceptance of individual entrepreneurial failures is a necessary inducement for entrepreneurial intention, and recognizes that an individual’s diminished fear of failure is a strong determinant in individual intention.

### **Stigmatization and Structural Punishments of Failure**

A review of relevant literature indicates three general ways by which society may punish failed entrepreneurs. The first is financial, such as the increased cost of capital. The second is legal or regulatory, through enactment and enforcement of

bankruptcy laws, and the third is social norms, based on application of shame. This section presents each of those three topics.

#### *Impact of Financial Structure*

Landier (2002) suggests cost of capital as one way by which failure stigma affects entrepreneurial intention, because market expectation of an entrepreneur's ability determines the cost of capital. In a fiscally conservative environment, failed entrepreneurs who try again are penalized with an increased cost of capital. By contrast, in an experimentation-friendly environment, wise entrepreneurs are more willing to start again, and the cost of capital is low (Landier, 2002). In a fiscally punishing environment, by contrast, clever entrepreneurs tend not to terminate projects, as failure would incur higher borrowing costs on the next start-up attempt (Landier, 2002). That atmosphere impacts not only start-up rates, but encourages what Venkataraman and Sarasvathy (2008) call "walking-dead businesses" that continue to lurch forward after they should have been shuttered. Legal frameworks can also act as a form of punishment for failing, through bankruptcy laws.

#### *Impact of Bankruptcy Laws*

Lee, Yamakawa, Peng and Barney (2011) assert that "lenient, entrepreneur-friendly bankruptcy laws are significantly correlated with the level of entrepreneurship development, as measured by the rate of new firm entry" (p. 505). The research shows that if "bankrupt entrepreneurs are excessively punished for failure, they may ignore potentially high-return, but inherently high-risk, opportunities to start new businesses" (Lee et al., 2011, p. 505). Other researchers concur that more rigorous bankruptcy systems lead not only to lower levels of entrepreneurship, but also to a higher proportion

of larger, more mature firms in the economy, and lower business turnover rates (Jia, 2009).

Naudé (2008) calls for simpler bankruptcy procedures to reduce the cost of exit for entrepreneurs. However, other researchers debate the significant link between bankruptcy deregulation and intention diminishment, pointing out that lenient bankruptcy laws encourage only non-ambitious entrepreneurship or reiterative business models (Primo & Green, 2008). Therefore, relaxing bankruptcy laws could be linked to decreased innovative entrepreneurship. Primo and Green's research further suggests that "tighter bankruptcy laws may not have the significant (negative) impact on entrepreneurship and economic performance feared by many" (p. 3). The third way that failure intolerance affects potential entrepreneurs is through stigmatizing failure, based on social norms.

#### *Social Norms and Shame*

In a study of "how entrepreneurs or communities make sense of venture failures" (Cardon et al., 2011, p. 79), researchers determined that some regions of the United States tend to place blame for venture failure on circumstances such as market situations or simple bad luck, whereas others tend to blame the individual entrepreneur. In regions where the individual is blamed, the result is "stigmatization of the entrepreneur and entrepreneurship more broadly, as well as a negative influence on the entrepreneur's sense of personal failure and a willingness to start another business again in the future" (Cardon et al., 2011, p. 80). Landier (2002) ties that stigmatization to outcomes, quoting a study which claims that "10% of a representative sample of the U.S. working population stated that they were 'currently engaged in the process of creating a nascent business,'"

compared to four percent in most European countries and two percent in Japan (p. 8). The same study ties the large variance in entrepreneurial activity between countries and sectors to the stigma of failure (Landier, 2002).

The annual Global Entrepreneurship Monitor concludes that perceived social legitimacy of entrepreneurship makes a difference in aggregate intention levels (Reynolds et al., 2000). Two such indicators are “(a) the extent to which fear of failure acts as a deterrent and (b) respect for those starting new firms. These and other measures indicate a fundamental difference in social and cultural values between countries with high levels of entrepreneurial activity and those in which entrepreneurship is not an integral feature of everyday life” (p. 2). Researchers also report that fear of failure is a deterrent to starting a business (Reynolds et al., 2000). The foregoing section presented three ways in which society may punish failure, ending with stigmatizing it. The next section explores this method of punishment in detail.

#### The Intention-Stifling Mechanism of Intolerance

Ucbasaran et al. (2012) provide additional research correlating failure intolerance and diminished intention toward entrepreneurship, and posit that “it could be that the psychological costs of business failure are lower and reduced more quickly in social contexts that are more forgiving of failure” (p. 32). Venkataraman and Sarasvathy (2008), also emphasize that failure forgiveness is one of the factors that create innovation and sector-specialized entrepreneurship.

Venkataraman and Sarasvathy (2008) also offer a solution to failure intolerance: societies should be “empathetic towards the entrepreneurial process” (p. 10) and evolve

from treating setbacks as failures to treating setbacks as options, experiments, and learning opportunities.

The psychological operation involved in perceived failure intolerance is that an individual does not develop sufficient intention, due to fearing disdain from neighbors. Liu and Feng (2009) assert that the connection between macro-attitudes and individual intention is direct: “the acceptance of failure will determine whether or not an entrepreneur decides to start a firm” (p. 12). Yet another way in which failure is considered objectionable to nascent entrepreneurs will be examined next. Proposed by Nielsen (2012), one mechanism is that individuals might lose intention because they perceive business failure as destructive to social capital, in the same way that failure destroys financial capital. Under this hypothesis, an individual whose venture fails will lose both the invested monetary amount and a measure of goodwill from members of the individual’s network. This psychological operation may be understood by the affordable loss principle (Read et al., 2010). Nascent entrepreneurs might limit the risk of losing social capital just as they would limit the risk of financial capital.

Sociological studies reveal that social capital “may be specific to certain activities” (Coleman, 1988, p. S98); hence, the entrepreneurial decision-making process may establish the link between the risk and a specific potential loss more easily. The bricolage process often uses the links between other potential community contributors whose diverse human capital unites to move forward (Garud & Karnøe, 2003). Entrepreneurs know that they may need to unite other people in order to succeed in future endeavor attempts, and thus, that they must not alienate them by disasters born of hasty

start-up involvement. Hence, intention may decrease through fear of social capital loss, because social capital may be seen as “a resource for action” (Coleman, 1988, p. S95).

The perceived risk of losing status may also trigger anxiety, in addition to potential apprehension over losing social capital for future investments. Status is considered as important to potential entrepreneurs as financial reward is in motivating intention (Baumol, 1990). Entrepreneurial motivation is commonly understood in terms of “higher incomes, innovation and economic growth” (Desai & Acs, 2007, p. 2), but in fact, “the entrepreneur is fundamentally engaged in activity aimed at increasing wealth, power and prestige” (p. 8). Cohen, Smith, and Mitchell (2008) concur that variables independent of financial performance are important because entrepreneurs do not “focus exclusively on income maximization” (p. 107).

#### Evidence Countering PFI Theory

Burchell and Hughes (2006) quantitatively address the issue of PFI, using the 19-country Eurobarometer study. Their study posits that the decision to conduct the study was triggered by a lack of existing research “establishing whether attitudes to failure themselves differ systematically across countries, or affect economic performance” (p. 1). The study’s conclusions, however, run contrary to previous research. Burchell and Hughes assert that failure intolerance actually correlates to higher start-up rates. Even though the United States ranks higher in entrepreneurial activity, and also ranks higher in aggregate failure tolerance, the study indicates people are “relatively less willing to grant a second chance to those who have tried and failed” (p. 2), so residents of the United States do exhibit failure intolerance through intolerance of “second chancing.” The Burchell and Hughes study also asserts the postulated correlation between higher

aggregate startup activity and reputation for failure tolerance is not conclusive, as “little evidence that the differences in entrepreneurial behavior between the USA and Europe can be explained by different levels of tolerance to business failure and to second chancing” (p. 29). Personal start-up experience of respondents to their study did not significantly affect the results.

The culture-psychology dialectic might itself not be an appropriate explanation of the failure intolerance mechanism; the Burchell and Hughes study proposes that economics may prevail over culture in shaping attitudes. “One possible explanation is that, instead of these attitudinal variables promoting behavior, it is economic experiences that cause differences in attitudes. When a business fails, this is typically associated with losses for many stakeholders in that business, and their only direct experience of business failure is associated with personal economic losses for many people,” (Burchell & Hughes 2006, p. 30). The study triangulated results with existing theory by comparing Hofstede’s results for each nation, which includes examples of negative impact from failure on others, such as investors losing capital, customers not receiving orders, employees losing jobs, and lenders being unable to collect on debts.

Empirical evidence also weakens studies lamenting a negative impact of failure intolerance: despite greater failure stigmatization that does impact intention in some regions, every region produces individuals who become potential entrepreneurs (Read et al., 2010). These potential entrepreneurs may have more pronounced personality traits such as self-efficacy, which is the primary characteristic distinguishing entrepreneurs from non-entrepreneurs (Chen, Greene, & Crick, 1998), and which might lead a person to overcome an entrepreneurially negative culture, or to disregard failure intolerance,



because self-efficacy influences the development of entrepreneurial intention and behavior (Boyd & Vozikis, 1994). The trait of self-efficacy will be discussed in a later section.

#### Purpose for Researching Perceived Failure Intolerance

Two reasons compel researching PFI: 1) the limitations of existing research on the topic, and 2) disagreement about PFI among researchers. This section explains these two reasons, providing further review of literature for this study.

#### *Limitation of Existing Research*

Research limitations are found in both PFI and entrepreneurship research in general. Bosma (2009) declares that research about “the relationship of place and person is not yet adequate,” as there is still very limited research investigating these macro-micro relationships in the field (p. 10). One limitation of research on PFI is that studies tend to be macro in nature, focusing on nations rather than communities, contrary to the fact that “most explanations of the differences in entrepreneurship rates may be found at the sub-national, rather than the national level” (Bosma, 2009, p. 25).

Comparisons are hemispheric in nature in some research on the topic, such as that comparing Asia and the West, indicating that the fear of shame from failure negatively correlates with intention in East Asia, compared to Anglo-influenced countries (Begley & Tan, 2001). For example, Pillis and Reardon (2001) correlate countries such as the United States that better communicate the benefits of entrepreneurship, with the prevalence of entrepreneurial outcomes of Ireland, where “in founding a new venture, the entrepreneur risks financial failure and consequent public humiliation. If the venture succeeds, the entrepreneur stands to gain wealth, independence, and perhaps a sense of

accomplishment” (p. 11). Byrne and Fayolle (2010) note that differences in intention between France and the United States have been attributed to risk tolerance and the prestige afforded to entrepreneurs. Similar effects have been observed between the United States and Britain, particularly before the Thatcher reforms (Chell, Haworth, & Brearley, 1991). A study covering the United States, Vietnam, and Taiwan by Nguyen et al. (2009) points to the United States innovation rate, correlating the rate to the lack of stigma attached to failure. Another drawback to research on impact of failure intolerance is that the research combines individuals and reports statistical means, but attitudes on the topic are not exhibited identically by all residents in a society.

#### *Disagreement on the Influence of PFI*

Grilo and Thurik (2005), Nielsen (2012), and Cardon et al. (2011) all support the hypothesis that individuals perceiving neighbors as intolerant of venture failure will exhibit decreased entrepreneurial intention. This topic is part of the larger research field of social norms, based on culture (Autio et al., 1997), which might not correlate strongly with intention, however (Glaeser & Kerr, 2009; Li et al., 2010). Further, perceived failure intolerance may not reduce entrepreneurial intention significantly, however, as indicated by the 19-country quantitative study by Burchell and Hughes (2006), disputing the link between failure intolerance and entrepreneurial outcomes. As self-efficacy might be the characteristic enabling individuals to disregard failure intolerance, self-efficacy will be discussed next.

#### Self-Efficacy

Previous sections in this chapter have addressed the impact of subjective norms on individual entrepreneurial intention. However, subjective norms are not the only

influencer, because “people make causal contributions to their own functioning through mechanisms of personal agency” (Bandura, 1993, p. 117), reflecting its significance.

This section explains the concept of self-efficacy and its connection to entrepreneurial intention and perceived failure intolerance in more detail. Theories to explore perceptions of personal competence arose in the twentieth century, including theories of effectance motivation (White, 1959) and achievement motivation (McClelland, Atkinson, Clark, & Lowell, 1953). Bandura developed the construct of self-efficacy as an explanation for perceptions of personal competence which were embedded in the earlier motivation theories (Maddux, 2002).

#### *Self-Efficacy Definition*

Self-efficacy is a construct derived from social cognitive theory (Gist & Mitchell, 1992) defined as “a person’s estimate of his or her capacity to orchestrate performance on a specific task” (p. 183). Self-efficacy is a dynamic construct that may change over time, including situations in which changes resulting from new knowledge acquired in the process of executing a particular task (Gist & Mitchell, 1992). Self-efficacy differs psychometrically and conceptually from internal locus of control (Zimmerman, 2000). Internal locus of control refers to the belief that individuals determine their own fate (Palmer, 1971). Self-efficacy is task-specific. Entrepreneurial self-efficacy also therefore refers specifically to belief in one’s own ability to succeed as an entrepreneur. Researchers disagree over whether entrepreneurial or general self-efficacy is more appropriate for research in this field (McGee et al. 2009).

### *Self-Efficacy Impact*

The effects of self-efficacy are produced through four processes: cognitive, motivational, affective, and selective (Bandura, 1993). Within the cognitive process, some individuals are more intuitive and some more analytical, impacting their “perception and assessment of their entrepreneurial self-efficacy in their intentions to create a new venture” (Kickul, Gundry, Barbosa, & Whitcanack, 2009, p. 439). Gist and Mitchell (1992) note that self-efficacy has been researched for its impact in many areas such as sales performance (Barling & Beattie, 1983) and career choice (Len et al., 1987). Self-efficacy also impacts endeavors such as academic achievement (Zimmerman, 2000) and negotiation ability (Stevens & Gist, 1997). Other characteristics do impact performance, but none as pervasively as self-efficacy, affecting the manner in which individuals “feel, think, motivate themselves, and behave” (Bandura, 1993). Simply stated, “people who think they may perform well on a task do better than those who think they will fail” (Gist & Mitchell, 1992, p. 183). Chen, et al. (1998) propose that self-efficacy could be the construct that most distinguishes entrepreneurs from non-entrepreneurs.

Self-efficacy is appropriate for inclusion in this discussion for three reasons. First, McGee et al. (2009) deem self-efficacy to be an explanatory variable of entrepreneurial intentions and behavior. Secondly, Ucbasaran et al. (2008) define self-efficacy as the human capital related to perceived capabilities. And finally, Bandura (1982) relates self-efficacy to perceived behavioral control, one of the three constructs of Ajzen’s (1991) hypothesis for modeling entrepreneurial intention, the Theory of Planned Behavior (TPB). The next section explains TPB.

## The Theory of Planned Behavior

Understanding intention and its antecedents through intention models is a useful guide for the present study. A leading intention model is the Ajzen (1991) Theory of Planned Behavior model (Krueger, 1994). “Ajzen argues that intentions in general depend on perceptions of personal attractiveness, social norms, and feasibility” (Krueger et al., 2000, p. 412), who integrates the model with that of Shapero’s of the entrepreneurial event (1982), but Rideout (2012) expresses concerns about this integration.

Intention is “the link or bridge between the individual and the context” (Bird & Jelinek, 1988, p. 21), or “a conscious state of mind that directs attention (and therefore experience and action) toward a specific object (goal) or pathway to achieve it (means)” (do Paço et al., 2011, p. 21). Entrepreneurship researchers use TPB, as illustrated in Figure 3, because entrepreneurial action is an intentional behavior (Autio et al., 1997). Ajzen (1991) offers a simple explanation of TPB:

Intentions to perform behaviors of different kinds may be predicted with high accuracy from attitudes toward the behavior, subjective norms, and perceived behavioral control; and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior. (p. 179)

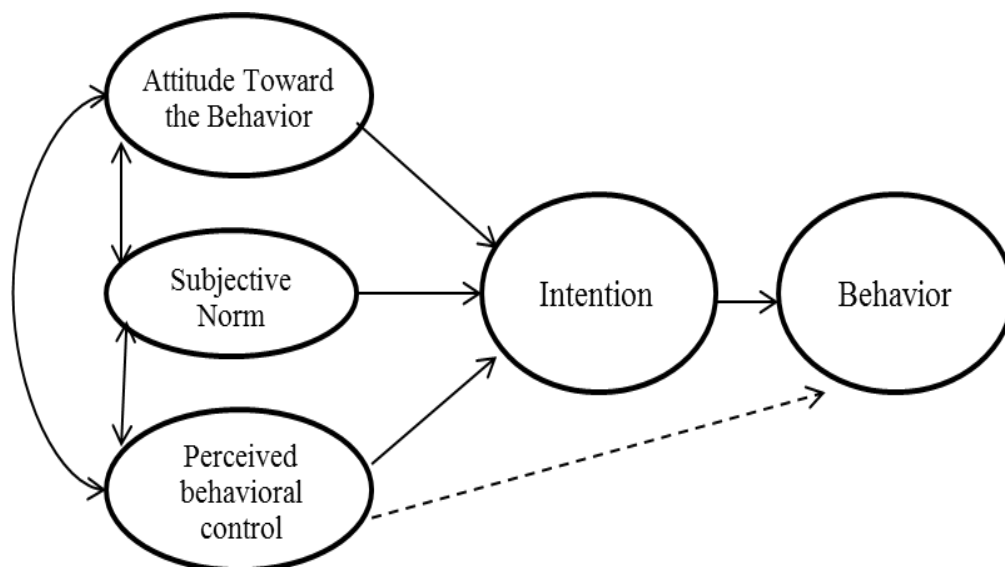


Figure 3. Ajzen's Theory of Planned Behavior (1991). Copyright 1991 by Elsevier. Reprinted with permission (Appendix B).

This model has proven beneficial to research. “In the psychological literature, intentions have proven the best predictor of planned behavior, particularly when that behavior is rare, hard to observe, or involves unpredictable time lags” (Krueger et al., 2000, p. 411). Ajzen's model is designed for any category of intention, but is particularly suitable for a study of entrepreneurial intentions and outcomes, because “intention models will predict behavior better than either individual (for example, personality) or situational (for example, employment status) variables” (Krueger et al., 2000, p. 412) and because the nature of entrepreneurship is a topic “for which intention models are ideally suited” (p. 411).

This theory suggests that antecedents of intention derive from three independent concepts, serving as predictors of intention (Autio et al., 1997):

1. *Attitude toward the behavior*: How favorable is the person's appraisal of a behavior? People do things they think will have desirable consequences and do

not do things they think will have negative outcomes, and the construct is impacted by belief in the probability of the outcome (Ajzen, 1991).

2. *Subjective norm*: How much social pressure toward performing the behavior does the person perceive?
3. *Degree of perceived behavioral control*: In the person's perception, how significant is the behavior to perform, based on past experience and anticipated obstacles? This is based on activity-specific self-efficacy (Ajzen, 1991) since nascent entrepreneurs tend to have higher self-efficacy (Markman et al., 2002), and self-efficacy might be the very trait distinguishing entrepreneurs from managers (Chen, 1998) and management students (Drnovsek & Glas, 2002). Self-efficacy is an "entrepreneur's human capital relating to perceived capabilities" (Ucbasaran et al., 2008, p. 154).

### Summary

As an interdisciplinary field, entrepreneurship is concerned with multiple elements and their interaction. Entrepreneurship is critical to local economies, and therefore, articulating the enablers and barriers of nascent entrepreneurship is crucial. Some of those enablers are environmental. This includes culture, which influences subjective norms, one of the three constructs influencing intention in the theory of planned behavior, a model for understanding intention. Some researchers believe that culture significantly impacts collective entrepreneurial intention (Nguyen et al., 2009), whereas others downplay its significance compared to that of human capital (Glaeser & Kerr, 2009; Li et al., 2010).

One particular construct at the nexus of culture and psychology is perceived failure intolerance, or PFI. In this theory, individuals' fear of backlash from their networks negatively correlates with entrepreneurial intention. Exhibited even in failure-intolerant regions, the PFI mechanism may not be triggered in some individuals, either due to demographic variables or to self-efficacy, the human capital which relates to perceived capabilities. As presented in the forgoing section, researchers do not agree on the link between PFI and intention (Burchell & Hughes 2006; Nielsen, 2012), presenting a research opportunity. The following chapter outlines a plan to investigate the interaction of perceived failure intolerance and self-efficacy with entrepreneurial intention.



## CHAPTER III

### RESEARCH DESIGN AND METHODOLOGY

The present study explored the influence of perceived failure intolerance (PFI) on entrepreneurial intention, the influence of self-efficacy on PFI, and if demographic variables play a role among potential (pre-nascent and nascent) entrepreneurs in the rural Midwestern region. Chapter III describes the research design for this study. The chapter is divided into three parts. The first part presents the introduction and a summary of research design recommendations, the second part is an explanation of the qualitative research method selected to investigate the research objectives, and the final section presents issues related to validity and reliability of the methodology. The results of the study can provide economic developers with the knowledge to determine how to best encourage individuals to become nascent entrepreneurs in the rural Midwestern United States by confirming antecedents of entrepreneurship. The study addresses four objectives.

- RO1: Describe the characteristics of the study's participants, including age, gender, educational level, region location, and work experience that is relevant to the study.
- RO2: Explore perceptions of failure intolerance (PFI) on individual entrepreneurial intention among residents of the rural Midwestern United States.
- RO3: Describe the influence of demographic variables (age, educational attainment, gender, entrepreneurial parent, and geographic demographics)

on the ability of potential entrepreneurs to overcome PFI among residents of the rural Midwestern United States.

RO4: Explore the influence of self-efficacy on the ability of potential entrepreneurs in the rural Midwestern United States to overcome PFI.

### Population

This section describes the relationship between two groups of interest. The first group is the population of potential entrepreneurs targeted by the research objectives. This population includes all potential entrepreneurs (pre-nascent and nascent) in Iowa, Minnesota, Illinois, and Missouri in the central Midwestern United States, representing adult demographic groups. Eastern and western Midwest states were not accessible through the available introducing organization, Midwest Community Development Institute. According to Landier (2002), potential entrepreneurs comprise 10% of the general U.S. adult population. If the entrepreneurial intention rates of the region are similar, this group represents approximately 10% of the rural Midwest. Potential entrepreneurs represent both pre-nascent and nascent entrepreneurs as defined by the Global Entrepreneurship Monitor (Brixy et al., 2008; Kelley et al., 2011).

The population of Midwestern potential entrepreneurs is not available for research. Potential entrepreneurs cannot be identified until they reveal their entrepreneurial intention through behavior (opening a business), and that behavior disqualifies them from inclusion in the population of potential entrepreneurs. The population will therefore be studied through investigating the perceptions of third-party experts, though a process described in this chapter. The participants will describe the population of potential entrepreneurs, including potential influence of demographic

variables. The characteristics of the potential study participants and the selection method for participants will also be discussed in the sampling section.

The particular geographic focus was chosen for four reasons. First, the target region is part of the Heartland region, “the most racially white and homogeneous of all the regions” in the United States (Lieske, 1993, p. 903), thus more effectively isolating demographic and cultural factors than a more diverse region. Secondly, the target region is in particular need of field research to improved entrepreneurial outcomes (Mattingly & Bean, 2010; Wennekers et al., 2010). Thirdly, Nielsen (2012) postulates that rural entrepreneurs possess unique characteristics, including a tendency to rely more on social capital than human capital traits such as creativity. Finally, rural entrepreneurs face obstacles such as low population density, poor connections to larger regions, and unique social and economic challenges that should be isolated for research (Lichtenstein, Lyons, & Kutzhanova, 2004).

### Research Design

The present study is exploratory and non-experimental. A qualitative study is the best approach for identifying factors that influence an outcome (Creswell, 2009). In exploratory designs, the researcher listens to participants to build understanding (Creswell, 2009) as the objective is to gain insight (Chakrabarty & Chuan, 2009). Further, experimental guidelines are not necessary for an exploratory study (Sackman, 1974). The specific design choice was based on a meta-analysis of suggestions from researchers in the entrepreneurship field. A summary of that analysis follows, including a list of six considerations which are important to designing an appropriate research methodology for the present study.

1. Carefully codify definitions of terms, including the term “entrepreneur” (Markman et al., 2002; Ucbasaran et al., 2001).
2. Recognize different levels in entrepreneurship, such as individual, organization, region, or nation (Low & MacMillan, 1988). The region level is a particularly appropriate level to study (Bosma, 2009; Davidsson & Wiklund, 2001; Delgado et al., 2010), as validity of nation-to-nation studies is threatened by variance in both regulatory and industrial clustering environments (Fogel, 2001; Giannetti & Simonov, 2005; Verheul et al., 2002).
3. Utilize more qualitative methodologies (Stewart, 2002), and employ more sophisticated qualitative methods (Chandler & Lyon, 2001).
4. Integrate interdisciplinary recognition (Chattopadhyay & Ghosh, 2008).
5. Employ subjectivism, as the entrepreneurial process is essentially subjective to the experience of the individual (Foss et al., 2008), and endeavor to limit psychological attribution error (Dimov, 2007).
6. Investigate demographic variable links. The following five variables are included for analysis in the present study:
  - a. age (Schwarz et al., 2009)
  - b. educational attainment (Carree & Thurik, 2010; Saulo et al., 2008)
  - c. gender (Schwarz et al., 2009)
  - d. rearing by an entrepreneurial parent (Fairlie & Robb, 2007; Krueger, 1993; Rideout, 2012)
  - e. demographic traits of the rural Midwest region, as even within nations regions can differ in outcomes (Li et al., 2010). The population for the

present study is non-urban Midwestern residents, which follows Bosma's (2009) recommendation to focus on the region.

Based on these recommendations and on the research objectives, this study employed the Delphi method, a sophisticated qualitative research design.

#### Data Collection

The Delphi method, originally developed by the Rand Corporation (Sackman, 1974), is named for the Oracle of Delphi in ancient Greece (Hasson et al., 2000). Delphi is a useful tool to “consider the expert judgments of others, of a systematic, rigorous and effective methodology designed to elicit potent and valid user-friendly answers” (Clayton, 1997, p. 374) to important questions. Delphi is an “iterative multistage process” usually involving two to five rounds, depending on the breadth of the topic (Hasson et al., 2000, p. 1008). Hasson et al. (2000), summarizes the Delphi method as a group facilitation technique that seeks to obtain consensus on the opinions of ‘experts’ through a series of structured questionnaires (commonly referred to as rounds). The questionnaires are completed anonymously by these ‘experts’ (commonly referred to as the panellists, participants or respondents). . . . As a part of the process, the responses from each questionnaire are fed back in summarized form to the participants. (pp. 1009-1010)

Three iterations are typical but two iterations are usually sufficient (Delbecq, Van de Ven, & Gustafson, 1975), in a modified Delphi, and by the final stage of the process, a reliable consensus (Powell, 2003) or median opinion from the panel (Armstrong, Collopy, & Green, 2004) on the issue should be attained.

#### *Uses of Delphi*

The Delphi method was a classified military secret until it was de-classified during the 1970s and employed for seeking broad expertise in the public-policy realm (Yousuf, 2007). The methodology “has been used for a vast array of applications in business, science, education, medicine, and other areas, both broad and specialized” (Sackman, 1974, p. 1). Examples of uses are identifying and ranking for comparisons (Schmidt, Lyytinen, Keil, & Cule, 2001) and in developing knowledge taxonomies for a field such as information technology (Nambisan et al., 1999). “The Delphi method works especially well when the goal is to improve our understanding of problems, opportunities, solutions, or to develop forecasts” (Skulmoski et al., 2007, p. 1). Delphi is also a common method for competency-identifying research (Gliddon, 2006).

Exploring of assumptions is a use of Delphi (Turoff, 1970) as concurred by Hasson, et al. (2000) in describing of Delphi as a method “to explore or expose underlying assumptions or information leading to differing judgements” (p. 1009). This makes Delphi appropriate, as the present study aims to explore, expose, and interpret claims made by researchers (Byrne & Fayolle, 2010; Chell, et al., 1991; Landier, 2002; Pillis & Reardon, 2001). Further, “one goal of a Delphi design should... always be to obtain a filtering of the essential from the superfluous” (Linstone & Turoff, 1975, p. 92).

The original methodology developed by Rand comprised four steps (Sackman, 1974). The steps are (a) raise the issues, (b) compare Delphi against established standards for empirical experimentation, (c) evaluate by the methodology unique to Delphi, and (d) summarize conclusions and make recommendations. An important Delphi characteristic is that it is a flexible technique (Hasson et al., 2000), meaning that procedures vary by practitioner. That flexibility in design increases the importance of

rigorously adhering to methodology guidelines, hence “careful thought must be given before using the method” (p. 1008).

### *Benefits of the Delphi Method*

The meta-analysis of research recommendations for the entrepreneurship field, combined with possible validity concerns caused by overreliance on conclusions of archival data in existing research, compels qualitative research at the regional level. Keeney et al. (2001) explain that the validity of any qualitative research method can be criticized, so judging the validity of the Delphi method should be based on “transferability, credibility, applicability or confirmability of results” (p. 198). Strauss and Zeigler (1975) deem the Delphi method to be “better than other methods for eliciting and processing judgemental data” (p. 254). Several Delphi benefits, including the effect on contingency theory and attribution error theory, and the benefit of anonymity drove the decision to use the method for this study.

First, the practice of entrepreneurship is based on contingency decision making, where the individual interpretation of unique situations is the basis for making decisions. Delphi has been used in other research situations requiring an understanding of various personal characteristic dynamics, such as the role of individual characteristics in personal change among counselors’ clients (Rowden, 2012). This study relied on a process for interpreting the findings of macro-analysis research through an expert group skilled in understanding the entrepreneurial cognition process at the *genba*<sup>5</sup>, referring to the

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<sup>5</sup> *Gemba*, also written *Genba*, is a Japanese term adopted by the quality improvement field, referring to the actual location where decisions are made. Regarding improvements on a given scenario, those working in that scenario should be most qualified to understand the situation and make appropriate recommendations.

location or scene of decision making for entrepreneurs. The participants of the study were entrepreneurship counselors serving the rural Midwest.

Secondly, the Delphi method may alleviate the problem of distortion caused by fundamental attribution error. This psychological construct describes the human inability to correctly attribute causes of failure, usually attributing failure to exogenous impacts (Dimov, 2007; Weiner, 1974). Internal problems might include “lacking strategy and vision, low educational levels, and inadequate social capital” (Franco & Haase, 2010, p. 516). To bolster their own self-esteem, “individuals selectively emphasize and de-emphasize their responsibility,” a behavior which may also be referred to as self-serving bias (Forsyth & Kelley, 1994, p. 368). Potential entrepreneurs often emphasize the impact of environmental influences over that of internal conditions, which may distort their narratives in research (Franco & Haase, 2010). By seeking responses from impartial observers rather than from the entrepreneurs, attribution error is filtered out. This filtering use of Delphi has been relied upon in other studies (Opie & Miller, 1989), where the interpretation of expert observers may also help avoid social acceptability bias (Fisher, 1993), as potential entrepreneurs polled directly might be tempted to respond in the way they (think they) “should” respond.

Another benefit is anonymity. Other types of qualitative methodologies, such as focus groups or phenomenological interviews, could potentially fulfill the qualitative research or interpretation function. The participant anonymity feature (Clayton, 1997) alleviates the effects of group dynamics that may impact results in designs such as focus groups.



Expertise is an additional benefit of the Delphi technique (Clayton, 1997). Experts were given opportunities to both analyze and aggregate the psychology of target individuals. By uniting expert estimates, the Delphi model is distinguished from the “averaging ignorance” tendency of public opinion surveys (Blair & Carroll, 2009). In this study, the researcher carefully mediated and compiled the Delphi results (Sackman, 1974), offering another safeguard for validity. A further benefit of Delphi is the accessibility of rural entrepreneurship experts. Accessible populations of failures or potential entrepreneurs do not exist (Read et al., 2010).

In addition to these features, a final benefit of Delphi is the separation of interpretation from the researcher. In referring to qualitative methodologies, Maxwell (1996) asserts that “the main threat to valid interpretation is imposing one’s own framework or meaning, rather than understanding the perspective of the people studied and the meanings they attach to their words and actions” (p. 89). The researcher in this study sought to reduce this concern by adopting the meaning delivered from the expert panel. The final statements from the panel serve as data for this study.

### *Steps and Procedures*

In this section, recommendations from various Delphi practitioners are condensed into eight steps, with the specific applications for the present study added to each. Figure 4 diagrams the process of a single round, where responses are collected and summarized into one statement, which is re-distributed to each respondent. Following the diagram is an explanation of eight steps and a discussion of sampling issues.

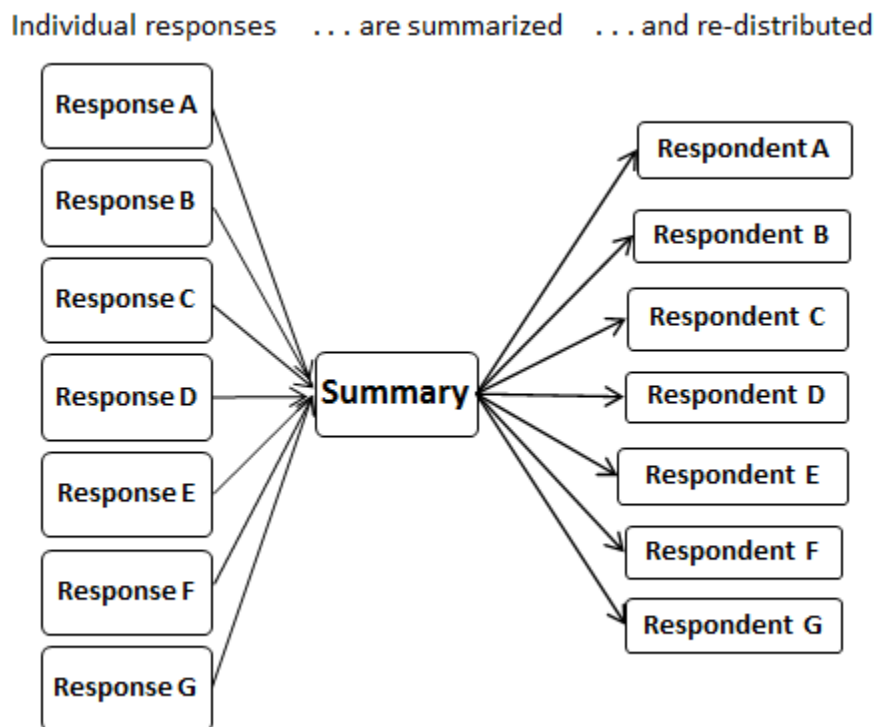


Figure 4. Diagram of One Delphi Round.

1. *Determine topic*

In this case, the topic is an investigation of the research objectives outlined earlier in this chapter.

2. *Choose the sample*

The sample was “a panel of informed individuals” (McKenna, 1994, p. 1221). As opposed to experimental designs requiring random sampling techniques, the Delphi technique requires the use of careful criteria for the recruitment of participants. Some researchers propose various specific panel sizes, but according to Murphy et al. (1998), “there is very little actual empirical evidence of the effect of the number of participants on the reliability or validity of consensus processes” (p. 37). The researcher sought to recruit as many qualified

participants as possible, referred to in the present study as *panelists*.

Demographic and experience data (Seagle & Iverson, 2001) were gathered about each participant during this stage in order to screen for experience diversity and to learn about the participants. Candidates were screened for participation in the study.

### 3. *Prepare the participants*

The researcher briefed the panelists in order to ensure both compliance with Delphi rules and response rates in later rounds (Hasson et al., 2000). The researcher communicated individually with participants without revealing participant identities, and explained the entire process and expectations to each participant via email. As recommended by Skulmoski et al. (2007), the participants were contacted in each round by email. Each participant was informed that other panelists would anonymously participate, and that the goal was eventually to reach consensus by the final round. As in some Delphi studies, this study describes the participants (Seagle & Iverson, 2001). Prior to gathering any data for the study, information about the role and experience of each participant was reviewed during the screening process, in order to ensure each expert met the criteria for participation. More detailed data for assessing experience diversity and analysis of the study data was gathered during the first Delphi round. The researcher nurtured commitment among participants by contacting them with additional commitment email reminders as recommended by Roth and Bevier (1998).

4. *Prepare a summary statement*

The researcher summarized research objectives in a uniform and easy-to-understand format, and presented the statement. The researcher endeavored to maintain the statement free from researcher bias (Sackman, 1974) by remaining disinterested in results. The researcher sent the summary to each participant individually via email. In a classical Delphi, the participants share opinions about the issue by answering questions for the first round. As the issue in this study was clearly defined by the literature review, the study required only two rounds. The preparation statement, Explanation of Procedures and Expectations, is included in Appendix C and the questionnaire is included in Appendix D.

5. *Collect all responses*

Participants each prepared individual statements in response to the questions. Participants returned those responses to the researcher via an online survey form in [fluidsurveys.com](http://fluidsurveys.com) to preserve anonymity.

6. *Compile responses and distribute*

The researcher compiled all responses and input them into tables for each question. All the responses in each table were summarized into statements, and the researcher then sent the summaries to each participant. The responses from the first round contained some disagreements, but they were compiled and sent back to participants, representing the second round.

7. *Each panelist reconsiders personal views*

In this second round, each participant read the statement compilations. As a result of exposure to various interpretations of answers from other experts,

some participants were persuaded to alter previous answers. Participants composed new responses and submitted them to the researcher via an online survey form.

8. *The researcher collects and synthesizes the responses*

If all the responses are near agreement at the end of round two, the process is complete. However, if the process does not achieve consensus after two rounds, an additional round could be added by repeating the same steps. Gordon (1971) asserts that even if a consensus does not emerge by the final round, the process is still beneficial because disparate opinions have crystallized and become apparent. Seeking a majority rather than consensus can increase reliability by relieving conformity pressure on participants (Ali, 2005; Woudenberg, 1991). Some participant attrition occurred, but the process continued with remaining panelists without re-recruitment of additional participants.

### Sampling

Because the target population of rural potential entrepreneurs was not accessible for research, the population was accessed via a proxy population, third-party experts who shared perceptions of the potential entrepreneur population. Although the participants were not randomly chosen in the present study, Shadish et al. (2002) maintain that heuristics may be applied to a purposive sample. Delphi methodology is considered “immune from the sampling requirements of a randomized design” (Cook, Brismee, & Sizer, 2006, p. 18), but still must be chosen carefully, based on the methodology requirements.

### *Definition of Expert*

Properly recruiting experts requires an understanding of the definition of the term expert. Delphi should employ criterion or purposive sampling techniques (Hasson et al., 2000). “Experts should be chosen for their work in the appropriate area and their credibility with the target audience” (Powell, 2003, p. 379). Delphi methodologists debate the specific definition of *expert* (Hasson et al., 2000), as a definition requires that a “balance must be struck in selecting experts who will be relatively impartial so that the information obtained reflects current knowledge” (Hasson et al., 2000, p. 1010). Strauss and Zeigler (1975) assert that claiming that a certain group is comprised of experts is scientifically untenable, but Adler and Ziglio (1996) suggest four requirements for expertise. Combining those four with the requirements of other methodologists produces a list of six criteria for expert panelists for this study:

1. Participants should be knowledgeable on the subject (Lemmer, 1998), giving knowledgeable participants access to the knowledge of other experts (Norcross, Prochaska, & Farber, 1993). All participants were experienced entrepreneurship counselors employed in the rural Midwest in a variety of functions.
2. All participants must be impartial (Goodman, 1987) to the findings, in order to limit influence by personal agendas and “so that the information obtained reflects current knowledge and/or perceptions” (Keeney et al., 2000, p. 196).
3. The researcher should ensure that participants are willing and interested in the topic of the particular study (Hasson et al., 2000) and “may see how the results might be useful to them” (Keil et al., 2002, p. 177), to put forth sufficient effort to make the results valid. This requirement of interest and willingness to participate

limited the number of participants in the current study, as coercion of the less willing would decrease the quality of the research output.

4. Since the participant pool should be diverse in experience or viewpoint (Rowe, 1994), representatives from different roles in different communities in four states were recruited. Diversity provides more accurate information and also helps generate interest and involvement from participants (Powell, 2003).
5. All participants must have sufficient ability and time to participate (Adler & Ziglio, 1996), in order for participants to continue with the process. Adequately responding to the research questions is crucial (Fink & Kosecoff, 1985). For this reason the instrument was designed to limit the completion time requirement, to encourage participation.
6. All participants were screened for adherence to the study criteria (Strauss & Zeigler, 1975). Although expertise may not be universally defined (Strauss & Zeigler, 1975), this study has three unique selection criteria:
  - a. Experience (Keil et al., 2002): all individuals have consulted individually with numerous potential (pre-nascent and nascent) entrepreneurs in the region to experience the psychological operations involved in intention. This specific experience that has provides participants with tacit knowledge about the minds of potential entrepreneurs in the rural Midwest. The number of years of experience was unequal between participants, providing further participant diversity. The specific amount of experience for each was recorded when gathering data about participant

characteristics (Strike, 2012), and the mean was determined (Keil et al., 2002).

- b. Counseling skill: Strike (2012), indicates that the differentiating characteristic in entrepreneur counseling ability is interpersonal skill, in particular being “open and vulnerable” (p. 160), which could be screened by the act of volunteering to participate, and interpersonal attributes were also screened by endorsement of referring parties.
- c. Entrepreneurship development responsibility: participants are likely to act on the results of the study, as recommended by Clayton (1997), if they work in roles that would benefit from knowledge of the study’s results.

Experience-related data was gathered about each participant during the screening stage in order to confirm both role diversity and expertise. As introductions flowed from the Midwest Community Development Society, experience data was available from membership data. Participants in the present study were geographically dispersed within the Midwest to encourage diversity of viewpoint as recommended by Rowe (1994), and were not exposed to other participants’ names, as recommended by Clayton (2006). Therefore, the snowballing technique was reserved as an option only in the event that appropriate candidates could not be identified through direct introduction, since snowballing is subject to both external validity threats, such as interaction of causal relationship with units, and internal, such as instrumentation threat (Shadish et al., 2002). Snowballing involves asking participants to refer other potential qualified participants (Groenewald, 2004). The need did not arise and snowballing was not employed.



Figure 5 is a graphical depiction of the steps employed in a Delphi study. The topic is based on the research objectives, and the sample is based on the five criteria of the participant-recruitment methodology.

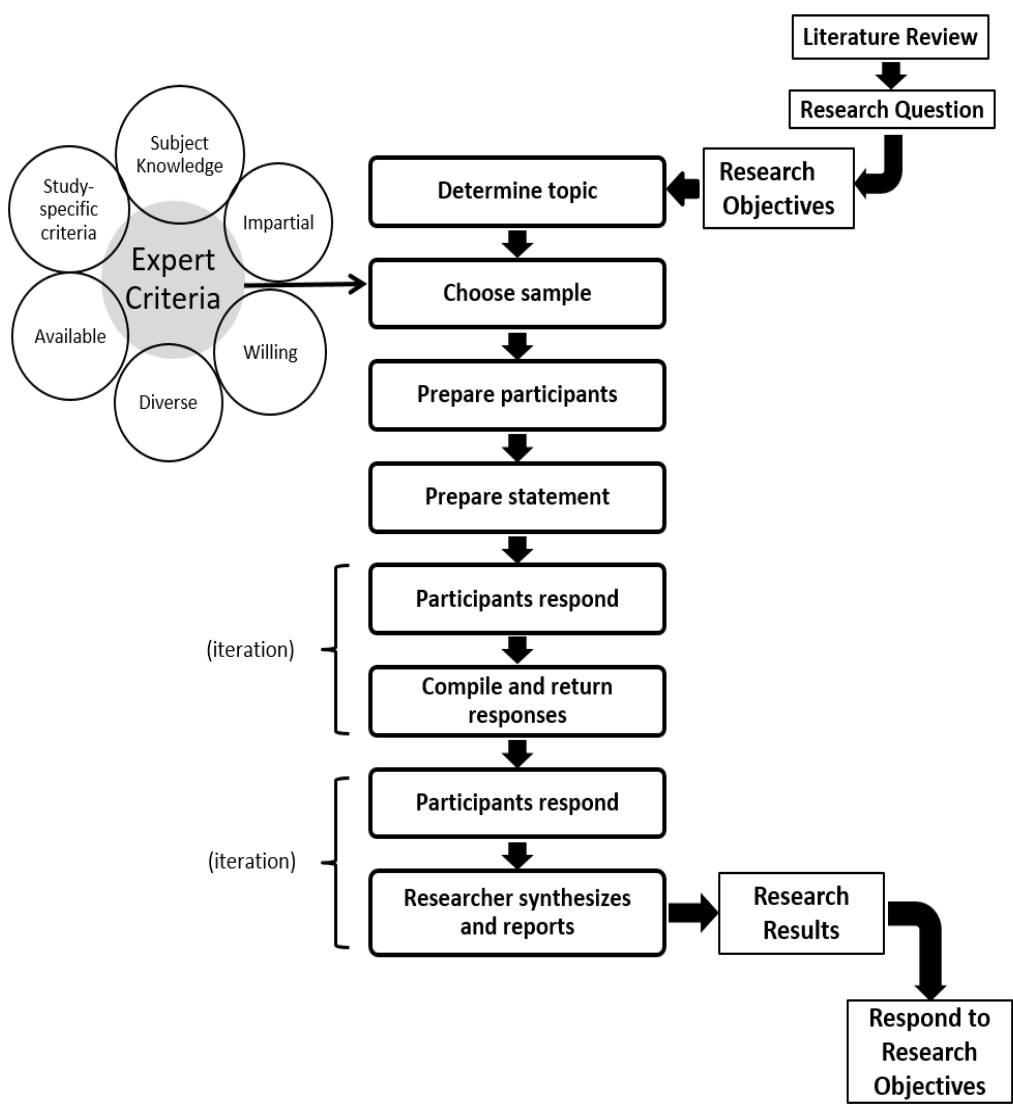


Figure 5. Delphi Research Process Design Roadmap

Table 2 features a table of procedures to explain the specific steps of participants' location and orientation, how the study was conducted, and stakeholders' responsibilities for each step in the study.

Table 2

*Procedures Table*

Time Frame	Actions	Responsible Parties
Pre-Study	Confirmed approval for the methodology and instrument from the university's Institutional Review Board.	Researcher IRB
	Tested instrument for face validity by entrepreneurship development professionals.	Researcher
Weeks 1 – 3	Contacted the Midwest Community Development Institute and begin screening candidates for participation in the Delphi.	Researcher
	Based on the meta-analysis of Delphi studies and the needs of the research objectives, contacted community and economic developers participating in the Midwest Community Development Institute and request referrals. Confirmed demographic and experience data about participants for Research Objective 1.	Midwest CDI
	No participants were recruited through snowballing.	Researcher
	Based on qualification criteria from the methodology, contacted list of qualified panelists and confirmed interest. The researcher chose 19 qualified individuals who work in entrepreneurial counseling and invited by email, using Participant Invitation form (Appendix E).	Researcher

Table 2 (continued).

Time Frame	Actions	Responsible Parties
Week 4	Response was sufficient, so Midwest CDI was not contacted for further participant candidates. (see Appendix F)	Midwest CDI
	If any candidates had been introduced as participant candidates but were not selected for participation, the researcher would have thanked them for their time and consideration by email.	Researcher
	Researcher emailed Procedures and Expectations policies to participants (see Appendix C).	Researcher
	Researcher assessed understanding and agreement through email inquiry with each participant.	Researcher
Week 5	<u>Delphi Round One:</u> Emailed the round-one questionnaire to participants.	Researcher
	<u>Delphi Round One:</u> Participants carefully considered and responded with their viewpoints, as explained in the instrument instructions.	Participants
	<u>Delphi Round Two:</u> Researcher carefully analyzed and summarized responses to the round-one questionnaire, preserving all unique viewpoints. When analyzing, particular attention was given to areas of greatest conflict or disagreement (Jenkins & Smith, 1994).	Researcher
Week 6	Researcher sent round one summaries to each panelist via email.	Researcher
	<u>Delphi Round Two:</u> Participants considered the responses of other panelists and responded with a revised viewpoint.	Participants

Table 2 (continued).

Time Frame	Actions	Responsible Parties
Week 7	Researcher analyzed and summarized the round-two responses. Participant viewpoints clustered as closely as possible on the salient points.	Researcher
	The researcher compiled study results. Researcher thanked the participants via email (Appendix G). A third round was unnecessary.	Researcher

#### Instrument

The instrument will be described here, and a copy has been placed in Appendix D (Appendix H is an instrument sample for Round Two). Prior to execution, the instrument was tested for readability and understandability by recruiting two individuals to test read the instrument. Both individuals are experienced in the fields of community and economic development. They were less experienced than participants, but understand the issues. Participants were chosen for the study based on the six criteria for Delphi methodology described in the sampling section of this chapter. The number of questions was limited “to avoid participant fatigue” (Ang et al., 2007, p. 364). Table 3 presents the purpose of each question by mapping each to a specific research objective. Each question is designed to support an objective. The participant questions at the end of the questionnaire (Appendix D) supports Research Objective One, Questions 1 and 2 support Research Objective Two, and Question 3 (two parts) supports Research Objective Three. Question 4 (two parts) and Question 5 support both Research Objective Four, and supports Research Objective Two.

Table 3

*Mapping Instrument to Research Objectives*

Research Objective	Instrument Questions
<p><u>RO1</u> Describe the characteristics of the study's participants, including age, gender, educational level, location, and work experience</p>	<p>Appendix D: <i>Please share more information about your background</i></p>
<p><u>RO2</u> Explore perceptions of failure intolerance (PFI) on individual entrepreneurial intention among residents of the rural Midwestern United States</p>	<p><b>1:</b> <i>In your region, do potential entrepreneurs mention the "fear of being judged negatively by others for failing?" How do you think "fear of being judged negatively for failing" impacts potential entrepreneurs' desire to startup? Please share specific examples of comments potential entrepreneurs have said on the topic of "fear of being judged negatively by others for failing" and their decision to startup.</i></p>
<p><u>RO3</u> Describe the influence of demographic variables (age, educational attainment, gender, entrepreneurial parent, and geographic demographics) on the ability of potential entrepreneurs to overcome PFI among residents of the rural Midwestern United States</p>	<p><b>2:</b> <i>Why do you think "fear of being judged negatively by others for failing" is a concern, or is not a concern, in the region?</i></p> <p><b>3:</b> <i>If some people in the region tend to "fear being judged negatively for failing," which of the following (if any) characteristics influence that feeling? Why do you think so?</i></p>
<p><u>RO4</u> Explore the influence of self-efficacy on the ability of potential entrepreneurs in the rural Midwestern United States to overcome PFI</p>	<p><b>4:</b> <i>You have probably seen some potential entrepreneurs decide to "take the leap," and others decide to give up on startup ideas. Have you counseled with potential entrepreneurs who did NOT "fear of being judged negatively by others for failing" (or were able to overcome that fear), because they have stronger belief in their own ability to succeed? Do you think belief in one's ability is a key to overcoming "fear being judged negatively by others for failing"? Please explain and provide examples.</i></p>

Table 3 (continued).

Research Objective	Instrument Questions
<u>RO4</u> Explore the influence of self-efficacy on the ability of potential entrepreneurs in the rural Midwestern United States to overcome PFI	<b>5:</b> <i>In your region, which (if any) of the following characteristics influence a person's belief in their own ability to succeed?</i>

#### Delphi Analysis Procedures

Iterative synthesis is the method chosen for analyzing the results in this study. The method is analogous to the process employed in organic chemistry research, where molecules are combined over multiple iterations (Feuerbacher & Vögtle, 1998). As illustrated in the steps of the first iteration in the process illustrated earlier in Figure 5, statements from participants are “translated into general generic statements about which consensus is then sought. These statements are further screened in an effort to eliminate duplicate statements and to prepare a combined listing of all statements” (Clayton, 1997, p. 378). Avoiding researcher bias is critical in this process. The researcher was not aligned with any research outcome, and was not living in the region, but nevertheless needed to be continually conscious of the potential for bias while summarizing.

As described by Clayton (1997), the output of all responses in the first round was synthesized, or carefully converged, into summary statements in a process of “controlled feedback” (Strauss & Ziegler, 1975, p. 254) utilizing a table. The researcher first recorded each response (second column), subsequently synthesizing those responses into a summary statement (third column) for each question. All data remained stored in the

table after the process, in order to reference backwards in case of error from data deletion or suspected compromise by inadvertent researcher bias. The summaries in column three were returned to the participants. The process was intended to be similar for the third and subsequent rounds if they had been necessary. In the final step, the researcher again synthesized using a data output table. The statements from the final round represent the findings of the study. During each iteration, the synthesis process in overarching themes was also analyzed in order to gain greater understanding by capturing the full expertise of the participants. The table was used to record all output to ensure that all data was captured for synthesis. All data was stored in a secure, password-protected account.

#### Institutional Review Board

Prior to data collection, the Institutional Review Board (IRB) at the University of Southern Mississippi granted permission to conduct the study. The IRB process begins with an application by the researcher, which describes the study, procedures, risks and benefits of the study. The process also confirms the qualifications of the researcher. The IRB process adds a safety mechanism to lower the risk of exploitation or other dangers to participants and the university. Appendix I contains a copy of the permission notice.

#### Summary

To conclude, this study investigated perceptions of the influence of perceived failure intolerance (PFI) on individuals' entrepreneurial intention in the rural Midwest, and how self-efficacy and demographic status affect PFI and entrepreneurial intention. The study employed a Delphi methodology to interpret the subjective experience of

individuals during entrepreneurial decision-making, revealing the cognitive processes involved in entrepreneurial intention among the target population. The study elicited opinions from expert respondents, entrepreneur counselors employed in different states of the Midwest, and summarized their knowledge, all of whom fulfill the six criteria for qualification under Delphi guidelines.



## CHAPTER IV

### ANALYSIS OF DATA

This qualitative research study investigated the influence of perceived failure intolerance on entrepreneurial intention among potential entrepreneurs in the rural Midwestern United States. The investigation employed a modified Delphi research design to solicit the expertise of entrepreneur counselors in Illinois, Iowa, Missouri, and Minnesota. This chapter establishes a frame for the results by beginning with an overview of the procedures and methodology. The study results follow the introduction, organized into four parts according to the four research objectives. The chapter concludes with a report on reliability as recommended by Delphi methodologist Sackman (1974).

A qualitative method was chosen to present a more holistic view of the context (Sinkovics & Ghauri, 2008). The modified Delphi technique was chosen to investigate the decision-making processes of potential entrepreneurs. By gathering the collective intelligence of third-party experts who counsel with the entrepreneurs, the method was expected to avoid fundamental attribution error that would result from directly questioning potential entrepreneurs. The method was also deemed appropriate because potential entrepreneurs in the rural Midwest were not accessible for research. Participants were organized into an expert panel as dictated by Delphi methodology.

The study utilized a survey, which is the most common instrument utilized in Delphi studies (Gliddon, 2006, p. 45). Panelists were asked to share their experiences, and the beliefs shaped by those experiences, through a set of questions. All responses were anonymous. The survey instrument (Appendix D) was crafted to limit the number

of questions, in order to avoid participant fatigue and to encourage generation of richer data.

As previously explained, Delphi methodology requires a minimum of five expert participants. Out of the total population, 19 qualified professionals agreed to participate, and the survey instrument (Appendix D) was distributed to the 19 individuals. In the first round, 13 experts participated, indicating attrition of six participants. The 13 panelists shared their experience-informed opinions on the topics in the survey. Consensus is ideal, but complete consensus is not realistic (W. Rothwell, personal communication, August 6, 2014) and pressures participants to conform (Ali, 2005; Woudenberg, 1991). The results reported in this chapter are therefore the median of the experts' final forecasts, as recommended by Armstrong et al. (2004). In the second round, participants agreed with the summary of first round results, adding a clarification by two participants on the issue of demographic influence. Because no opinions changed between the first and second round, the researcher determined that no benefit would be gained through a third round.

The next four sections present the study's objectives. The results reflect reports by the panelists. Included are specific anonymous comments from panelists and summaries of the data.

## Results

### *Research Objective One (ROI)*

*Describe the characteristics of the study's participants, including age, gender, educational level, region location, and work experience that is relevant to the study.*

This section presents data about the study's participants or panelists. All panelists were drawn from the population of professionals experienced in counseling potential entrepreneurs in the region. The population size could not be reliably ascertained because individuals who counsel with potential entrepreneurs are affiliated with numerous state agencies, federal agencies, community initiatives, educational institutions, and private organizations.

Participants were part of a panel organized for this study, and are referred to in this chapter as panelists. In order to fulfill the Delphi requirement of experience diversity in sampling, the researcher endeavored to recruit experts who represent a wide range of experience. The geographic reach of counseling activities varied among panelists, with some focusing on a single community, and some covering several counties or even multiple Midwestern states. The panelist-reported experience in entrepreneur counseling ranged between 2.5 years and 37 years. Experience profiles are listed as the following:

1. Manager of a Small Business Development Center (SBDC)
2. Founder and operator of a venture incubation space
3. Counselor focused on potential entrepreneurs in the youth demographic
4. Strategist, economic development: entrepreneurial financing, real estate, infrastructure
5. Entrepreneurship counselor, with additional past experience as a trainer for educating communities in cultivating entrepreneur support systems
6. Counselor and economic development professional

7. Community advisor for starting and managing ventures, with additional experience as a business owner
8. Program manager, public organization advising potential entrepreneurs
9. Advisor in a Small Business Development Center (SBDC)
10. Entrepreneur counseling center manager for 15 years, recently shifted to role in rural entrepreneurship strategy
11. Advisor of student entrepreneurs and director of an entrepreneur consultation center
12. Organizer of high school entrepreneurship programs, extension director
13. Extension director overseeing entrepreneurship programs, and 20 years in counseling entrepreneurs in a previous role

Table 4

*Demographic Characteristics of Panelists*

Attribute	Frequency	Percentage
Gender		
Male	10	77.0
Female	3	23.0
Highest Educational Attainment		
Some university	1	7.6
Four-year degree	4	30.7
Masters	8	61.5
PhD	1	7.6
Age Range		
25-35	1	7.6

Table 4 (continued).

Attribute	Frequency	Percentage
35-44	6	46.2
46-55	3	23.0
56+	3	23.0

Table 4 reports panelist demographic characteristics. Of the 13 panelists, ten (77%) identified themselves as male and three (23%) as female. One participant attended college but did not graduate, four earned bachelor's degrees, eight earned master's degrees, and one holds a doctoral degree. Participant ages ranged from 28 to 66, with the median ages ranging between 35 and 44 (46.2%).

Data regarding experience of study panelists is described in Table 5. Thirteen individuals experienced in counseling potential entrepreneurs participated in the study. Panelist backgrounds were diverse in demography, tenure, and experience. The breadth of their combined experience provided access to the thought processes of potential entrepreneurs representing a wide range of ages and locations in the Midwest region. All panelists possess strong entrepreneur-interaction experience in at least one Midwestern community. Some panelists have worked in roles that provided opportunity to develop macro-views on entrepreneurship in the region. Some panelists have themselves experienced startup creation.

Table 5

*Experience Profiles of Panelists*

Attribute	Frequency	Percentage
<b>Counseling Location</b>		
Illinois	4	30.1
Iowa	4	30.1
Missouri	4	30.1
Minnesota	2	15.4 *
<b>Relevant Experience</b>		
Counseling	8	61.5
Teaching and Counseling	4	30.7
Strategy Advisory	4	30.7
Business Owner Experience	2	15.3

\* Note: for location, the total exceeds 100 percent because one panelist's work is split between two states

*Research Objective Two (RO2)*

*Explore perceptions of failure intolerance (PFI) on individual entrepreneurial intention among residents of the rural Midwestern United States*

Perceived failure intolerance (PFI) is an individual's perception or fear that friends or other network members will be intolerant, or negatively judge the individual in the event that he or she fails. The panel was tasked with determining the extent to which that perception prevents individuals in the region from attempting startup. In the first round, the panel offered opinions, which were summarized. In the second round panelists read and considered the first-round summary. Panelists offered additional insight, but none of the panelists modified their opinions, producing a conclusive result (strong clustering) of 10 (of 13) panelists in agreement. The results are presented here.

The panel was asked to describe the influence of PFI on entrepreneurial intention. The panel recommended separating the topic into two topics: 1) cultural conditions in the Midwest region and 2) individual responses to the cultural conditions. The topics are presented in the next two subsections.

*Cultural Conditions in the Midwestern Region.*

Three panelists reported that failure intolerance from other residents is a conspicuous characteristic of small-town rural culture. For certain people in some communities, panelists have observed that the intolerant cultural situation either dissuades people from attempting to launch a business, or encourages them to hesitate and miss opportunities, eliminating those individuals from the pool of potential entrepreneurs.

An unfortunate tendency in some smaller communities is to seek improved entrepreneurial outcomes, while “simultaneously limiting entrepreneurial intention by pre-judging individuals’ likelihood of success,” reported a panelist. A panelist observes that even when residents do not pre-judge, investors and lenders usually do. A panelist reported that residents of the less tolerant communities are taught that “all it takes is hard work, but working hard while conforming to what society expects is not conducive to an entrepreneurial mindset.” The result is that “the pervasive and traditional rural attitude toward startups brings skepticism and caution,” leaving the “startup challenge” to individuals “with the strongest individual character.” The panel agreed that communities need to address the issue in locations where intolerance diminishes intentions.

The forgoing report from three panelists provides a grim narrative of the situation, but it is not the majority opinion. Ten of the 13 panelists (77%) are unaware of any

influence of PFI within their locations of responsibility. Further, their evaluation is that PFI, if real, would only be a problem for non-entrepreneurs, because, in their observations, entrepreneurs ignore PFI. More encouraging was the report that some communities in the region have addressed negative culture issues of the past. Where intervention has built a collective entrepreneurial mindset in the community, panelists observe that failure intolerance is not a concern, as the culture becomes altered by the intervention. Table 6 presents selected reports from panelists representing both opinions.

Table 6

*Relevant Observations of Cultural Conditions*

Culture is Intolerant (minority view) n = 3	Culture Tolerant or Irrelevant (majority view) n = 10
“It is a Midwest, small-town, rural cultural thing.”	Being supportive of entrepreneurs is “a badge of honor here.”
“We are brought up with a mindset to conform.”	“I think our community has had a very strong sense of entrepreneurship over the years.”
The unspoken message is that “if at first you don't succeed; try, try again. . . but don't rock the boat while you're at it.”	“I think hard work and the willingness to start something new is part of our culture in the Midwest. As a culture, we admire people who do that, and for the most part admire people who try.”
“the rural Midwest brings with it many social stigmas and stereotypes about who should or could start something ...that's ‘who we are.’”	

The panel provided further clarification of how they view the construct of PFI. Panelist reports distinguished the “sometimes judgmental culture of the Midwest” from “the legitimate, educated concern from friends and business mentors.” Panelists asserted that a degree of perceived intolerance by neighbors is necessary to encourage



reconsideration before committing resources to unviable ideas. Some potential entrepreneurs are overly exuberant and require negative feedback in order to grasp “a sense of possible risks,” reported one panelist. Another observed that “if anything, many people need to be more realistic in evaluating the chances of failure.”

*Individual Response to Cultural Conditions.*

Consensus was not reached, so the median opinion is the study’s response to the research objective. The majority of panelists concurred that *true* entrepreneurs are different from non-entrepreneurs, and not only because entrepreneurs possess intention. Entrepreneurs are either unaware of potential failure intolerance, or ignore it. A panelist shared that “I have not heard any entrepreneur express any concern about being judged negatively for his/her venture failing.” Potential entrepreneurs might be realistically afraid of actual consequences such as bankruptcy, or of other hurdles such as taxes, financing, or developing customers. A panelist’s experience is that many potential entrepreneurs do feel “concern about harming other investors through the loss of their capital in the event that the venture fails,” but are not concerned with being judged. A panelist reported that potential entrepreneurs have “reasonable concern about the odds of a small business succeeding,” as they “don’t have the same fear level that others do. I don’t think it’s regional. The mentality of the entrepreneur is that they believe in themselves (whether well founded or not). That’s the same here as it is anywhere in the world.”

In the exchange of ideas, a panelist responded “that successful entrepreneurs often have enough confidence in themselves and especially in their ideas that the thought of failing and then being judged is on the back burner.” Another panelist reported hearing

many types of doubts during the counseling process, though the doubts do not normally suppress an individual's entrepreneurial intention.

A panelist observation is that fear of failure diminishes entrepreneurial intention in non-entrepreneurial people, especially those with good jobs. But this construct is the actual fear of failure, that the "new venture may not be able to support them financially," not the fear of what others might say about the failure. This fear can cause them to refrain from launching, or can cause them to scale back or procrastinate the launch, either of which can cause failure. PFI might simply provide convenient justification for "not stepping out, not taking any sort of chance that things might not work out" among individuals lacking an entrepreneurial mindset. Another panel contribution was the definition of failure, that in many communities, "the fear of being judged comes from entrepreneurs being worried about what others will say if their venture doesn't make lots of money." Another panelist asserted that the region's residents define failure to include lack of visible success, not only venture dissolution. An additional report is that perceived behavioral control is impacted not only by perceived failure intolerance, but by perception of failure rates; as one panelist observed, "one failure can mentally outweigh 10 successes."

To summarize results of this research objective, the panel determination is that PFI does not influence potential entrepreneurs in the rural Midwest because potential entrepreneurs possess an entrepreneurial mindset. Selected communities in the region are plagued by cultures of failure intolerance and tendencies to pre-judge individual likelihood of success, however, which may influence the number of people who become potential entrepreneurs. The traditional culture in some parts of the region has a negative

influence on entrepreneurial intention by suppressing attitude toward the behavior. But as indicated by the results in some communities, cultures can change.

*Research Objective Three (RO3)*

*Describe the influence of demographic variables (age, educational attainment, gender, entrepreneurial parent, and geographic demographics) on the ability of potential entrepreneurs to overcome PFI among residents of the rural Midwestern United States*

As with Research Objective Two, the panel did not reach complete consensus on this issue. The observation of 11 out of 13 panelists (85%) is that demographics have minimal or no influence on failure intolerance perceptions. Two panelists asserted, however, that in the communities for which they are responsible, demographic membership can cause variance in PFI response. This section first presents the panel's majority response, which is the research objective result. The minority view is also presented because it offers an interesting insight.

*Majority Opinion: Demographics are Irrelevant to PFI.*

As described in the results for RO2, individuals possessing "entrepreneurial spirit" or "entrepreneurial mindset" are not swayed from the startup path by fear of failure intolerance. Further, according to observations of potential entrepreneurs, panelists in most regions report that entrepreneurial spirit is distributed across demographic groups. A panelist observed that "in my experience the confidence to succeed as an entrepreneur crosses every age, sex, color and religious boundary possible. I've had people who were 9 and 85 [as well as all races] ask me about starting their business." The representative opinion of the panel is that demographics have insignificant influence on failure intolerance perceptions, as the entrepreneurial mindset

is distributed among all demographic groups. A panelist commented that “if someone truly has the entrepreneurial mindset, he or she will overcome society saying they don’t have the ‘right stuff.’”

*Minority Opinion: Demographics are Relevant to PFI.*

In the minority opinion (expressed by two of the 13 panelists), PFI can create resistance to launching among members of five demographic groups, which eliminates the group members from the pool of potential entrepreneurs. This represents a subjective norm which might not affect potential entrepreneurs, but it may decrease the likelihood of someone becoming a potential entrepreneur. Age, education, parentage, gender, and status in the community are observed by panelists to affect perceptions of how others view potential failure in some communities of the rural Midwest.

A panelist questioned the perspective of the panel majority who do not observe demographic influence on intention and on the influence of PFI, contending that those panelists are not witnessing demographic influence because they are not advising sufficiently diverse populations, basing their summaries on flawed samples because the rural Midwest is not diverse. “Demographics always matter in my experience. While it’s true that an entrepreneurial mindset can be found in any demographic, the key question is whether all demographics are as likely to develop an entrepreneurial mindset,” was the contention.

The survey inquired which demographic variables might affect perceived failure intolerance (PFI) response. The panelists who believe demographics are influential responded that the degree of influence between demographic variables is not equal. In order to illustrate the extent of demographic influence on PFI, the demographic variables

were ranked, based on the panel recommendations, from most likely to the least likely to cause PFI to diminish entrepreneurial intention.

Panelists determined that age is the most significant variable impacting PFI. Age affects perceived failure intolerance partly due to differences in how people of different ages are treated by other residents. Some communities “stifle youth efforts in the community,” and these are often the same communities who openly recognize problems with youth attrition, a panelist reported. Despite the lack of community support, however, being young can positively affect personal risk tolerance. “From my experience, young people generally work harder and are less risk adverse, but have less financial literacy and need more help with business models, accounting, taxes and financing” from others, another panelist observed. A panelist reported that younger people have lower fear of failure but higher reaction to PFI, and older people can be more adept at ignoring failure intolerance from others. Another panelist report is that older people, by contrast, are “more concerned about ‘a retirement nest egg,’ so using disposable cash, or dipping into retirement to start a business seems unwise.” Another panelist observed that “from a financial risk standpoint the elderly, rightly so, are concerned with losing what they’ve saved. But I think those fears are external and not a mark of internal self-doubt. That’s why it is only a small factor in their decision making.”

Panelists reported that to the extent demographics do influence individual PFI, gender is the second most relevant variable. First, gender can affect personal risk tolerance; “women tend to be more conservative, and our culture does not reinforce them breaking this paradigm,” a panelist reported. Some women have more propensity for

fear of disappointing people, which is directly related to PFI. Moreover, some fear they will not be taken seriously, the panelist said.

According to the study's panelists, people in the rural Midwest region generally "think they must first get a college education in business before they can start a business." Further, they feel they will not be taken seriously if they do not possess a degree from a strong institution; "education gives people confidence," which helps them ignore PFI, a panelist reported. The panel therefore agreed that educational attainment was the third variable most influencing PFI.

One panelist offered a recommendation: "having entrepreneurial parents I believe is a strong and very positive factor to positively influence someone to become an entrepreneur. Let's do a study on how many entrepreneurs had parents and grandparents that were also entrepreneurs . . . my guess is the percentage is huge." A panelist reported that entrepreneurial parents act as positive role models, and the role model function is critical in creating intention: "without a close role model it is hard for some to understand that this can be a career path. If they have seen their parents succeed, they have insight into the trials and successes of small business. They tend to have a more realistic attitude and know the difficulties are many." Also, "if a parent is against an entrepreneurial risk it is less likely the child will pursue it."

Panelists proposed another demographic variable, "community status," as an additional insight to the variables about which the survey inquired. Several panelists mentioned status as a significant variable. A representative explanation is a panelist who witnesses "situations where individuals are 'allowed' to have a level of success or failure because of their status in the community while others, because of their status, are

presumed to fail even before they attempt to start a business.” As reported by another panelist, “everyone knows everyone,” and people with higher status are given a “better chance.” The panel viewed this variable as affecting not only entrepreneurial intention, but the perceived ability to secure startup financing. Conversely, one panelist reported that some individuals of higher status are less likely to sustain entrepreneurial intention.

A final demographic variable, rural Midwest residency, was ranked as the least influential demographic variable on PFI. The culture of many rural Midwest communities, as described in a previous section (Research Objective One), is less tolerant than some regions, but rural Midwestern people are not more likely to experience PFI, as the panelists believe that rural Midwesterners possess the competency of resiliency. Despite pockets of negative pressure, individuals do therefore launch businesses, the panel observed.

#### *Research Objective Four (RO4)*

*Explore the influence of self-efficacy on the ability of potential entrepreneurs in the rural Midwestern United States to overcome PFI.*

The results of RO2 and RO3 indicate that individuals possessing “entrepreneurial mindset” or “entrepreneurial spirit” are unaffected by PFI and therefore become potential entrepreneurs, but that some societal segments are less likely to develop the mindset requisite for startup. This objective (RO4) explores the role of self-efficacy and PFI within the culture of the rural Midwest. The present study defines self-efficacy as “a person’s estimate of his or her capacity to orchestrate performance on a specific task” (Gist & Mitchell, p. 183), but due to semantic variations, the compiled survey results combine self-efficacy (which is activity specific), and self-belief (which is more general).

The results first disclosed a regional idiosyncrasy: self-efficacy among individuals in the region is not based on belief in one's knowledge or skill, but on belief in one's ability to work hard and persevere over obstacles. In the exchange of ideas between the panelists, three more concepts emerged: 1) the importance of self-efficacy, 2) self-efficacy influence on PFI, and 3) conditions that foster self-efficacy in the Midwest region.

*Importance of Self-efficacy.*

Panelists agreed that self-efficacy is crucial for potential entrepreneurs. "For virtually every start-up with which I have provided counsel, a strong belief in one's ability to succeed (work ethic) may rank second in importance only to understanding markets," remarked a panelist. Self-efficacy is "the main thing that sets entrepreneurs apart," reported another panelist. The group provided a link to a critical theme that arose in RO2 and RO3: entrepreneurial spirit/mindset corresponds to self-efficacy. Individuals without self-efficacy might be unable to overcome obstacles inevitable to the startup process. Panelists also posited that, based on their counseling experience, self-efficacy is more important than either sector knowledge or technical skills. Among potential entrepreneurs in the region, self-efficacy reflects passion, drive, leadership, vision, and the ability to recruit others to the vision, the panel proposed.

*Self-efficacy's Influence on PFI.*

The panel's conclusion for Research Objective Four is that self-efficacy is vital to overcoming PFI. The opinion concludes that self-efficacy essentially frees people from being concerned about the opinions of neighbors. Observations from panelists on the issue include the following:



- “Believing in themselves is a key to not being concerned about the opinions of others.”
- “Belief in one’s ability trumps fear of being judged.”
- “The belief in one’s ability is a critical factor in overcoming all fears that come with an entrepreneurial adventure.”

Self-efficacy also creates resiliency in failure: true entrepreneurs see failure not as “the end of the world,” but as learning. A panelist reported that potential entrepreneurs understand “that failure isn’t an ending but a learning opportunity.” Another reported, “I believe that many entrepreneurs aren’t really risk takers. They’re confident that whatever comes of their efforts will be great. If it’s not exactly what they envision, that’s fine. That confidence takes the sense of risk out of the endeavor, because they’re sure that something great will come of their work.” If potential entrepreneurs, defined by the panel as those possessing self-efficacy, do give up on ideas, it is “because they have seen the reality of the numbers and made a rational decision. Social pressure isn’t really an issue. It’s very common to see the same person come back with another, better idea,” a panelist reported.

*Conditions that Foster Self-efficacy in the Midwest Region.*

The previous section is the panel’s determination on the extent to which self-efficacy assists potential entrepreneurs to overcome PFI. The panel also posited that self-efficacy is not distributed evenly between individuals, and those who possess self-efficacy might do so because of certain conditions and offered additional data about conditions that encourage self-efficacy. This section presents demographic variables and situational variables presented by the panel.

*Entrepreneurial parentage.* Parental role model was ranked as the top determinant of self-efficacy. “Having entrepreneurial parents I believe is a strong and very positive factor to positively influence someone to become an entrepreneur.” While entrepreneurial parentage is crucial, no intervention can alter an individual’s past situation. A need therefore exists for non-parental entrepreneur role models, the panel determined.

*Age and Stage.* Age brings confidence, making it the second biggest determinant. A panelist observed a trend for “older folks who are deciding to go into business” because “they believe their age and work experience is a tremendous asset.” An additional unprompted insight is that life stage is a demographic variable influencing peoples’ estimates of their personal ability to succeed in startup. “Life circumstance (timing) is a high influencer in making decisions to move forward.” For example, “a person with very little responsibility for other people (such as dependent children, caring for an aging parent, etc.) will have a lower risk tolerance than someone else,” a panelist stated. According to this observation, entrepreneurial self-efficacy is decreased by the realization in such individuals that they lack sufficient personal “bandwidth” to devote to a startup launch.

*Education.* “Typically people think they must first get a college education in business before they can start a business,” according to one panelist. “Those who have not completed a college degree feel they may not be prepared to start their own business,” another panelist reported. The negative effect of lacking education is greater than the confidence boost from earning a degree. Another panelist’s impression is that among the

population of potential entrepreneurs, education includes both formal (higher education degree) and hands-on education gained through business experience.

Based on the reported experience of multiple rural communities in the region, changing secondary school education can change collective self-efficacy and the ability to avoid PFI impact. Those communities have almost eliminated PFI through providing entrepreneurship education in public schools. A panelist reported: “I would add that this ‘judging’ can be mitigated to some degree by fostering entrepreneurship in elementary and high schools. Encouraging risk taking and rewarding the outcome, regardless of success or failure, would be an important step.” A panelist from one of the communities with public school entrepreneurship programs recommended the intervention to other panelists. “By fostering and encouraging entrepreneurship and related qualities (risk taking, problem solving) at the elementary and high school levels, we can foster a greater sense of the possible. We’ve done this in a few communities and the [positive] change is very evident.”

*Experience.* Panelists reported that, as with any region, direct sector experience builds self-efficacy. But they observed that for many rural Midwesterners, self-efficacy is facilitated by experience with basic hard work, and the resulting self-knowledge of one’s personal work ethic. A panelist concurred by reporting that self-efficacy in the region is based less on domain knowledge, and more on the belief that “I can do this because I can work hard and persevere until profitable.”

*Social Capital Possession.* Entrepreneurship is a social goal, including rewards such as prestige. “No entrepreneur I’ve known ever expressed becoming wealthy as a goal of starting up their own company,” a panelist reported. The “one thing that really seems to

help is knowing someone who had the courage to try their own business and seeing them as a role model. That makes the possibility seem real.” The comradery of other potential entrepreneurs is a particularly effective variety of social capital. The panel determined that entrepreneurial peers build an individual’s capacity to ignore naysayers. “The entrepreneurs who I interact with do not have a fear of being judged by others, because they tend to hang with their entrepreneurially-minded peers. If everyone is working on their crazy ideas, it’s much harder for any one entrepreneur to judge the others,” observed a panelist. Another panelist observation is that several communities with a “very strong sense of entrepreneurship” have programs for illuminating the successes of entrepreneurs. The critical function of role models was mentioned again in this section of the study results. In relation to social capital, reflections from panelists identified conditions beneficial to encouraging self-efficacy:

- Personal support network.
- Family support.
- Community support.
- Verbal affirmation: in the words of one panelist, “a vote of confidence from even one other person can make a huge difference!”
- Counseling from knowledgeable supporters “that ensures getting started correctly, setting up appropriate operations and safeguards,” as expressed by a panelist.
- Perception of expected support from family and friends.

*Gender.* In some locations, gender identification is reported to influence self-efficacy. A panelist working on a statewide program remarked that “gender is a big issue for

entrepreneurship rates.” Whether innate or culturally influenced, many women in the region develop lower levels of entrepreneurial self-efficacy. A panelist with geographically broad experience in entrepreneur counseling reported that “in the rural Midwest, age and gender are both factors that people tend to think one must be ‘older’ and ‘male’ to start something.”

*Status.* Some panelists maintained that the variable of “community status” is influential in encouraging self-efficacy just as it is influential in overcoming PFI. This reflects the subjective norm discussed in Research Objective Three, where the perception exists in some communities that other residents will be more supportive of high-status persons.

### Reliability

In Delphi methodology, reliability refers to the ability to reproduce results with multiple panels (Haltinner, 2008), which was not feasible in the present study. Subject or situation bias can reduce reliability in Delphi studies (Haltinner, 2008). Stability of the responses through the rounds reliably indicates consensus (Hasson, 2000), however, indicating strong reliability in this study. A concern expressed by a panelist is that the view of some panelists might be biased. People who contact counselors for assistance might be pre-screened for PFI, because someone influenced by PFI is less likely to contact a counselor for assistance in startup launching. Counselors therefore only see potential entrepreneurs, or those with entrepreneurial intention, and have not witnessed those who have never developed sufficient intention to begin startup planning. Counselors who do recognize a problem with PFI might do so because they see the entire population. In this way, perception of panelists might differ from reality. According to Low, et al. (2005), however, perception is a strong driver of intention, and the perception of counselors might influence potential entrepreneurs.

## Summary

This chapter presented the results of a qualitative study designed to explore issues concerned with perceived failure intolerance (PFI) in the rural Midwest in order to explore four related research objectives. An expert panel was drawn from the population of professionals experienced in counseling with potential entrepreneurs in the rural Midwest states of Illinois, Missouri, Iowa, and Minnesota. Individuals selected from the population for inclusion on the panel ranged in years of relevant experience from 2.5 years and 37 years. Participants acted as a panel of experts who combined their knowledge, while each individual remained anonymous from other panelists. The panel reported that potential entrepreneurs are not affected by PFI, but non-entrepreneurial people can be. Further, demographics do not measurably affect whether or not someone becomes “entrepreneurial.” However, demographics can affect whether or not someone develops self-efficacy, and self-efficacy is the competency that allows individuals to ignore PFI. Chapter V will discuss findings and conclusions from the results of the study, and offer recommendations for communities in the region.

## CHAPTER V

### DISCUSSION

Poverty in the rural Midwest is pervasive, but increasing entrepreneurial outcomes is one solution to improving job creation and economic growth (Parker, 2009), and outcomes require increased entrepreneurial intention among residents. Perceived failure intolerance (PFI) has been proposed as one inhibitor of entrepreneurial intention. The present study investigated the degree to which PFI influences entrepreneurial intention in the region and the influence of demographics and self-efficacy on PFI. Chapter V highlights the findings of the research study and presents conclusions and recommendations. This section presents three findings which derive from the results reported in Chapter Four. The section also presents four conclusions based the findings, and five recommendations which are based on the conclusions.

#### Findings, Conclusions, and Recommendations

##### *Finding 1*

According to the study's panelists, PFI does not affect all individuals, as individuals with an entrepreneurial mindset are unaffected by PFI. In selected communities of the rural Midwest, however, a strong perception exists that local cultures are intolerant of failure. A failure intolerant culture on the community level, where it exists, directly affects attitude toward startup behavior, decreasing intention in some individuals. Hopp and Stephan's (2012) research concurs with this finding.

##### *Conclusion 1.1: Potential Entrepreneurs are Resistant to PFI*

Residents of rural regions tend to place a higher priority on social capital than do their urban counterparts (Nielsen, 2012), which may cause them to hesitate more before

risking the loss of social capital. However, entrepreneurs view social capital differently than non-entrepreneurs (Tanas & Saeed, 2007). Potential entrepreneurs in the rural Midwest possess a quality that the panel referred to as entrepreneurial mindset, which inoculates them against potential contempt from members of their social networks.

*Recommendation 1.1: Replicate Entrepreneurial Mindset*

The above conclusion is that the status quo is positive. Potential entrepreneurs require no intervention. Not all residents are potential entrepreneurs, however. The recommendation is to encourage the entrepreneurial mindset. Current entrepreneurs should be encouraged to mentor pre-potential entrepreneurs, thereby disseminating the entrepreneurial mindset to the larger population.

*Conclusion 1.2: Negative Bias Error*

Although (solid) potential entrepreneurs are unaffected by PFI, analysis of the findings reveals that perception of failure rates can influence attitude toward startup behavior, which is one of the three factors in Ajzen's Theory of Planned Behavior. A panelist stated that if people think failure is common, they become disheartened. Theories from evolutionary biology suggest that many humans possess a cognitive bias toward prioritizing the avoidance of negative situations (Haselton, & Buss, 2009; Nesse, 2005), resulting in negative bias error. Humans can over-respond to pain and danger, because in past ages, over-responsiveness to predators and other dangers was preferred to under-responsiveness, and this mechanism continues to trigger false alarms in modern humans (Lima & Dill, 1990). Negative threats can therefore loom larger than positive ones in the memories of many humans, causing individuals to over-prioritize avoidance of failure rather than embracing potential success. Panel comments suggest that negative

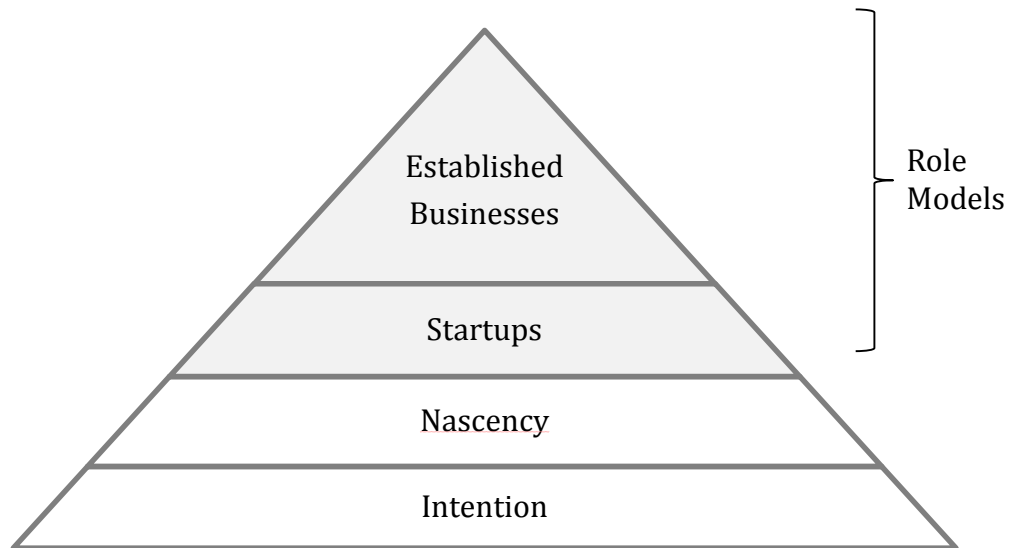


bias error might be more prevalent in declining rural economies, because fewer positive examples exist, creating a group consciousness of negativity. The error could exacerbate effects of perceived failure intolerance, leading to a downward spiral of ever-ebbing entrepreneurial intention in a community, as fear of failure intolerance can become a self-fulfilling prophecy, which encourages more stigmatization of failure (Read et al., 2010).

*Recommendation 1.2: Town Training*

In locations where negative bias error exists, a community conversation could be initiated. Training would both educate about the importance of encouraging local entrepreneurship and foster recruitment of an entrepreneurship development coalition. More concretely, the conversation could forewarn individuals, especially thought leaders, that increasing startup attempts will increase the number of failures. Figure 6 illustrates the stages (Kelley et al., 2011) that the entrepreneurship process follows: individuals develop intention, then begin nascent business structures, and create operating startups, some of which eventually become established businesses. Based on a proposition from Venkataraman and Sarasvathy (2008), the pyramid shape in Figure 6 indicates that attrition occurs at each stage of the process, as some individuals suspend their efforts.

Increasing the number of established businesses therefore requires increasing the number of startups, which requires increasing the number of attempts (nascency), which requires increasing the population of individuals possessing entrepreneurial intention. Educating all community segments could preempt the disappointment caused by future failures, by informing residents of the inevitability of some failures. This could improve the collective valence of the community regarding increased startup activity. More entrepreneurial activity would result, providing more startup role models. The



*Figure 6. Hierarchy of Entrepreneurial Results*

recommendation is an example of a “small wins” strategy (Weick, 1979) that can build momentum for efforts at later stages of entrepreneurial ecosystem development, which is necessary because transforming a culture into one supportive of entrepreneurship requires many years (Feld, 2012).

*Conclusion 1.3: Negative Culture Can Be Changed Through Intervention*

Contrary to negative reports in selected geographical areas, panelists from some areas reported success in altering the culture of failure intolerance. These communities appear to be different due to conscious intervention. Efforts to improve perceptions of support could positively impact intention (Fogel, 2001; Krueger, 2000). If more people started companies because they viewed the culture as accepting of entrepreneurship (Fogel, 2001), the increase in startup numbers would improve collective intention

(Ahmad & Seymour, 2008), and produce more positive role models (Fornahl, 2003), resulting in a virtuous cycle.

*Recommendation 1.3: Youth entrepreneurship*

Entrepreneurship can be taught (Kuratko, 2005). In analyzing the differences between Midwest communities tolerant and intolerant of failure, the common variable is the existence of youth education programs in the tolerant communities. This report comes from communities in all four states: Illinois, Indiana, Minnesota, and Missouri. Through those programs, youths develop entrepreneurial cognition, build viable ventures, and act as role models for others in the community. The condition creates a virtuous cycle, in contrast to the downward spiral reported in some communities. A panelist in the current study reported that not all students in those programs launch successful businesses, but the process is fruitful. University and community college programs in areas served by panelists are also very useful at increasing collective intention and improving entrepreneurial output (Bramwell & Wolfe, 2008), but many communities are too small to host larger institutions.

*Finding 2*

Demographic variables are not critical influences on perceived failure intolerance for potential entrepreneurs. But demographics can negatively affect self-efficacy, according to the panel. Decreased self-efficacy affects perceived behavioral control (Ajzen, 2002) which affects intention, according to both the panel and the theory of planned behavior (Ajzen, 1991). The result is that even though representatives of every demographic group in the rural Midwest are becoming potential entrepreneurs, some groups are under-represented in the pool of potential entrepreneurs.

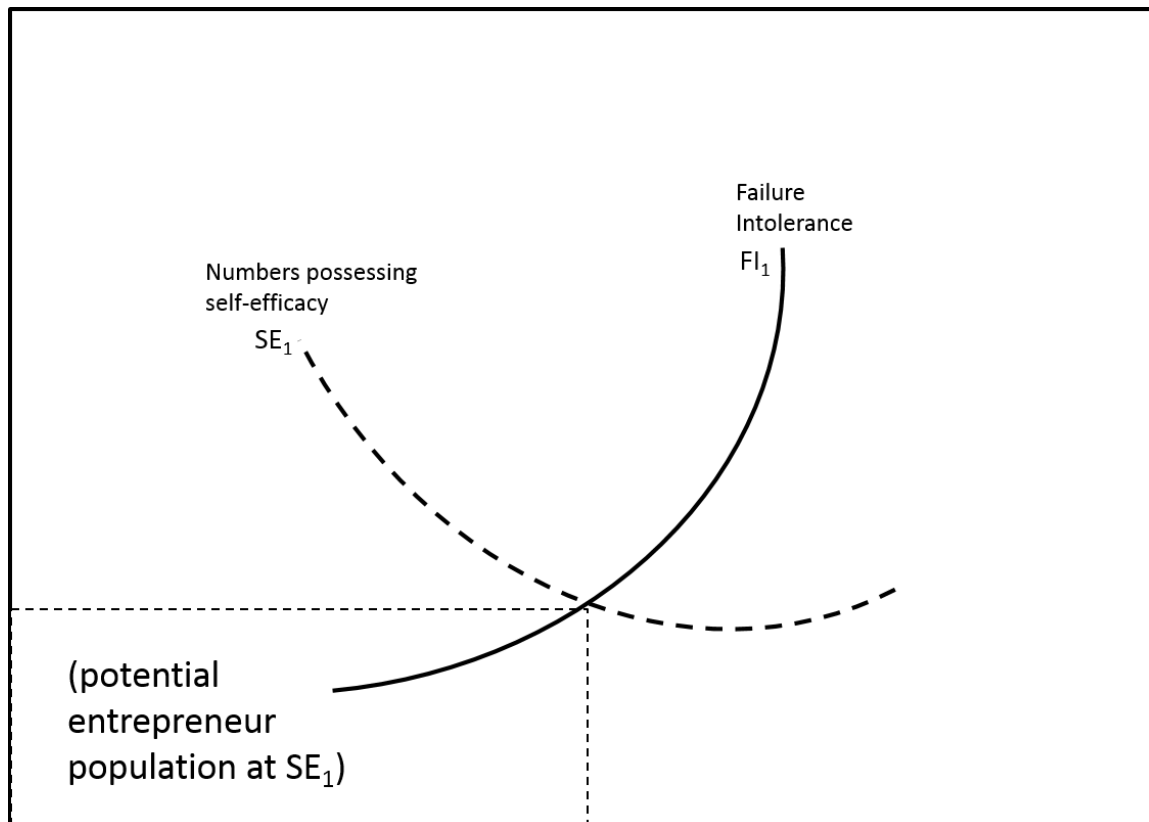
*Conclusion 2.1: Communities Should Encourage Self-Efficacy in All Demographic Groups*

According to the study's panelists, demographic variables do not affect PFI in potential entrepreneurs, but self-efficacy can affect intention, or the likelihood of becoming a potential entrepreneur. Rather than seeking to change the culture, the key might be to increase intention by increasing self-efficacy, particularly among groups currently lacking sufficient self-efficacy. Once the potential entrepreneur population grows, a community could reach a critical mass of collective entrepreneurial mindset, and entrepreneurship could become infectious. The conclusion is not based on desire for fairness or inclusion, but on the need for more potential entrepreneurs (Feld, 2012).

*Recommendation 2.1: Provide Entrepreneurship Encouragement*

Communities might benefit from engaging the entire *entrepreneurial stack*, a term from venture capitalist and entrepreneurial ecosystem evangelist Brad Feld (2012). Entrepreneurship supporters should stop trying to predict winners and losers. As suggested by Figure 6, expanding the base of the pyramid will expand the size of the groups at the top, indicating that rural communities simply need to grow the number of people trying. As self-efficacy can be found among all demographic groups, community entrepreneurship supporters need to encourage self-efficacy in everyone, but particularly in lower-status people, non-graduates, and youth (especially girls). As recommended by the panel, supporters should communicate "you can" to these individuals. As some of those individuals respond to the encouragement, the larger potential entrepreneur population could provide more role models, more comradery between potential entrepreneurs, and more collaborative opportunities. As a sports team is benefited by a

deep bench of additional relief players, current potential entrepreneurs might benefit from a deeper bench of additional potential entrepreneurs.



*Figure 7.* Representation of current failure intolerance and self-efficacy levels

Figure 7 is a conceptualization of the relationship between self-efficacy and the population of potential entrepreneurs. The intersection of curve  $SE_1$  and curve  $FI_1$  symbolizes the number of startup attempts in a community. Curve  $SE_1$  represents an example of the self-efficacy levels of individuals. The self-efficacy level is displayed as a curve because  $SE_1$  represents the aggregation of attitudes from numerous individuals. Because critical mass does not exist, and because of potential negative subjective norms, the tendency of self-efficacy curve is to pull to the left. Curve  $FI_1$  represents an example

of failure intolerance in the community. The potential result of the recommendation is represented in shifts between Figure 7 and Figure 8.

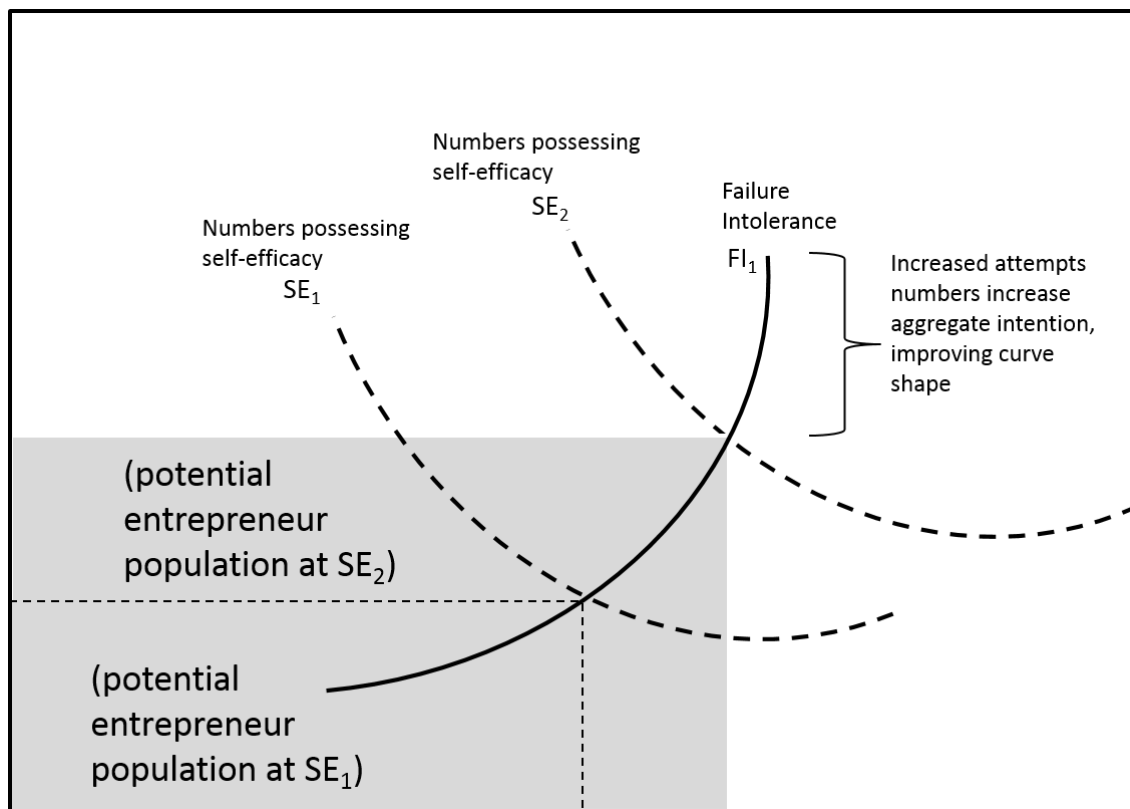


Figure 8. Increasing collective self-efficacy increases intention

The intersection of the curves is the status quo, and the population of potential entrepreneurs in a community. As indicated in Figure 8, intervention is required to shift curve  $SE_1$  to the right ( $SE_2$ ). At the new axis, the total population of potential entrepreneurs could increase. The curve shape improves (becomes more vertical) through momentum, as role models and collaborative opportunities increase in number. Another option, changing the culture (reducing failure intolerance), could shift curve  $FI_1$  to the left, accomplishing the same objective of increasing entrepreneurial output. Changing the culture is a less preferable solution because 1) changing a culture is

extremely challenging, and 2) the shape of the  $SE_1$  curve is flatter, so shifting  $FI_1$  left would yield less of a result than an intervention which shifts from  $SE_1$  to  $SE_2$ .

*Recommendation 2.2: Provide Interaction Opportunities Among Potential Entrepreneurs*

The panel proposed that potential entrepreneurs are benefited by more interactions with each other. Rural residents suffer from Metcalfe's Law, which asserts that a network's value is proportional to the square of the nodes in the network (Shapiro & Varian, 1999). The more people who own a fax machine, for example, the more valuable fax machine ownership becomes. Rural residents have fewer people in their networks, and so have fewer people with whom they can "bounce" ideas. "Every generation has underestimated the potential for finding new recipes and ideas. . . . possibilities do not merely add up; they multiply" (Romer, 2008, p. 1). The strength of cities lies in the collaborative opportunities between individuals and between institutions (Glaeser, 2011), an advantage largely unavailable to rural entrepreneurs. Entrepreneurship supporters in the rural Midwest could therefore benefit from increasing interactive opportunities for adults to share ideas in order to improve intention. Communities need more people trying and sharing ideas in order to synergize and collaborate.

School entrepreneurship programs can potentially develop self-efficacy and entrepreneurial human capital in youth, leaving the task of improving self-efficacy in adults, particularly lower-status individuals, to structured interaction opportunities. Interaction events need to be substantive (Feld, 2012). "Greatest ideational productivity" most likely occurs with trusted partners exchanging and refining ideas (Gemmell et al., 2012, p. 2). In addition to ideation, interaction builds relational social capital (Nahapiet

& Ghoshal, 1998), and social capital was deemed crucial by the panel. Potential entrepreneurs in rural regions rely on social capital more than their urban counterparts do (Nielsen, 2012). The panel observed that potential entrepreneurs in the region benefit by meeting and sharing their “crazy” ideas.

### *Finding 3*

Members of any demographic segment can become potential entrepreneurs, but not all individuals can become successful entrepreneurs. Entrepreneurship is difficult (Butler, Doktor, & Lins, 2010). Perceived Failure Intolerance (PFI) may help separate those who lack sufficient entrepreneurial mindset and entrepreneurial cognition. The survey synthesis reveals an intriguing proposition: some degree of Perceived Failure Intolerance (PFI) acts as a necessary sieve, filtering out individuals deficient in entrepreneurial mindset, including self-efficacy. An individual who cannot overcome PFI will not overcome sales rejection or supplier disruptions or other inevitable obstacles on the startup path. Based on this finding, overcoming PFI is the audition for entrepreneur-hood, as indomitable self-efficacy will be required throughout the new venture creation process.

### *Conclusion 3.1: Not All Residents Are Needed as Entrepreneurs*

Shifting the self-efficacy curve in Figure 9 to the right ( $SE_1$  to  $SE_2$ ) can increase intention and entrepreneurial output (startup behavior). Momentum could increase as the entrepreneur number increases, which would provide more role models for collaborative opportunities. The increased momentum could also increase general self-efficacy and move the SE curve even farther to the right. Too much collective self-efficacy, however, could lead to startup attempts by too many individuals who lack sufficient ability.



When the SE curve intersects  $FI_1$  at the point where curve  $FI_1$  becomes vertical, too many people could become involved through irrational herding behavior (Brunnermeier, 2001). The resulting situation would represent an entrepreneurship “bubble,” where individuals become exuberant and the perceived value of entrepreneurship deviates significantly from intrinsic value (Girdzijauskas et al., 2009). The SE curve would shift without further economic benefit.

*Recommendation 3.1: Avoid Excessively Increasing the Potential Entrepreneur Supply*

Over-encouraging self-efficacy could produce a negative result. In seeking to improve the collective self-efficacy, community entrepreneurship supporters should never compel individuals into attempting startup, because some individuals might be inappropriate as potential entrepreneurs. According to the study’s panel, being an

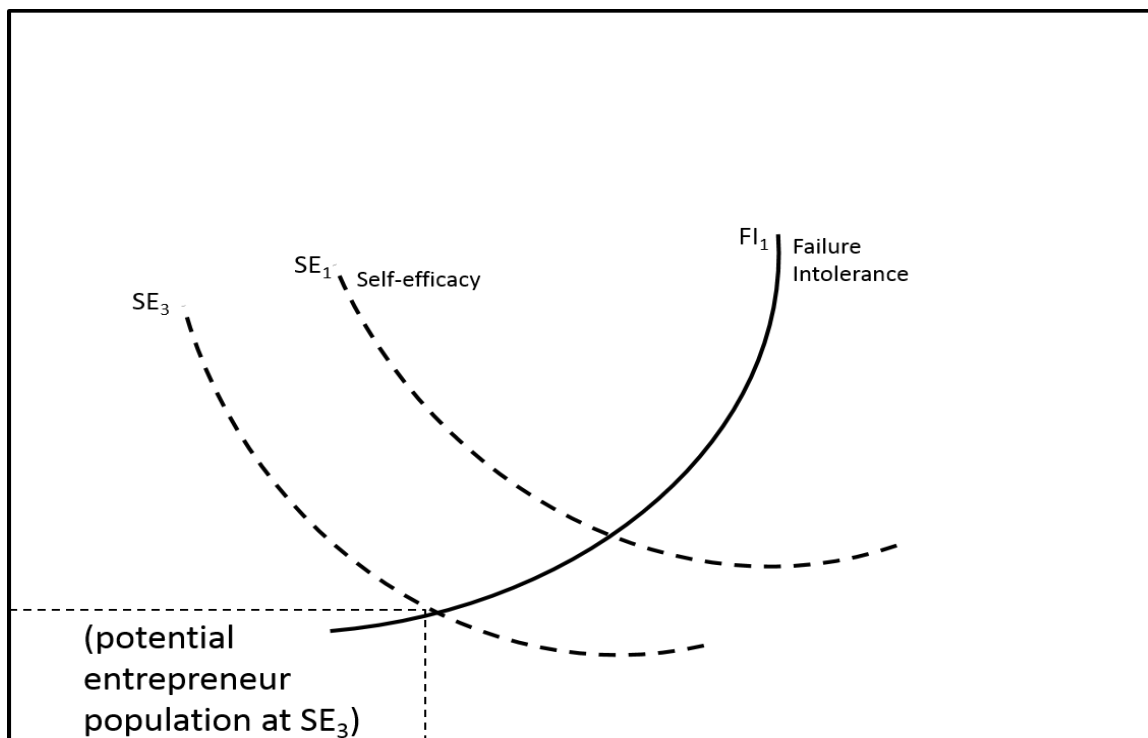


Figure 9. Potential danger of over-encouragement

entrepreneur requires both an entrepreneurial mindset and being in a stage of life that allows requisite focus and dedication. Over-encouraging unprepared individuals can lead to an oversupply of potential entrepreneurs, as previously screened people will be unchecked by PFI and launch unviable businesses. This situation could also dramatically increase the failure rate. As illustrated in Figure 9, the result could be a negative reaction by the community (through negativity bias), resulting in a considerable shift of the self-efficacy curve to  $SE_3$ , moving the curve farther left than even  $SE_1$ .

#### Limitations and Delimitations

Attrition was a primary concern in the design of this study. Although anonymity is considered to be a methodological strength of Delphi research, anonymity represented an additional weakness due to lack of accountability (Powell, 2003); because anonymity prevented the researcher from determining which panelists failed to respond, participation procrastination could have been simpler for individuals, resulting in some attrition as some panelists did not maintain the pace of the iteration deadlines. Further, community sizes in the study were not equal, so some were more rural than others.

#### Recommendations for Future Research

The present study produced useful data and answered some crucial questions, but the study generated two additional questions which can be answered by further research. The first research question inquires if the data derived from this study is unique to the rural Midwest. Triangulating the study through investigating perceived failure intolerance in rural locations in other cultures would add information on how to best support rural entrepreneurs.

Another study could investigate the link between an individual influencing another individual's self-efficacy and sustainable entrepreneurial outcomes. The present study results, supported by Chen et al. (1998), indicates that possession of strong self-efficacy is a defining trait for entrepreneurs. The study also indicates that encouragement from other parties can increase self-efficacy, which could result in more individuals becoming potential entrepreneurs. A future study could explore the influence of exogenously-developed self-efficacy on entrepreneurial success, because self-efficacy obtained from another person might not be as resilient as innate self-efficacy. Individuals who become potential entrepreneurs as a result of encouragement might not have sufficient "grit" to withstand the trials of the startup journey. More data on the topic would be useful for economic developers to understand the degree of personal encouragement appropriate to impart.

#### Summary

Research indicates entrepreneurship is the best solution for economic development (Acs & Storey, 2004; Klapper et al., 2010; van Burg & Romme, 2013), particularly in rural communities (Steiner & Atterton, 2014). This study was initiated based on the premise from existing research that when an individual launches a successful venture in a rural community, the entire community benefits, and hence, discovering how to better encourage potential entrepreneurs is worthwhile (Pato & Teixeira, 2014). Additional research therefore recommends improving startup rates by identifying catalysts and inhibitors to entrepreneurial intention (Grundstén, 2004; McGee et al., 2009).

The present study employed a human capital theory approach and explored one possible inhibitor to entrepreneurial intention, perceived failure intolerance (PFI). The study contributes to the literature by combining the lived experiences of experts who best understand situations where individuals struggle with deciding whether or not to become entrepreneurs. The experts were anonymously arranged in an expert panel. The study contributed data about the interaction among entrepreneurship, human capital and diversity, which Lee et al. (2004) asserts to be lacking in the research on regional studies. The panel determined that PFI does not materially inhibit entrepreneurial intention in potential entrepreneurs, but does discourage some individuals from becoming potential entrepreneurs. Communities can intervene to encourage more collective entrepreneurial intention.

The combined expertise of the panel also created five recommendations: resident training, youth entrepreneurship programs, verbal encouragement, interaction opportunities, and avoidance of excessive encouragement. Three of the interventions represent low hanging fruit (Weick, 1979) and could most quickly ignite momentum for change in rural communities. The first is that communities should institute youth entrepreneurship education programs, offering the opportunities to as many youths as possible. Some communities in the region, too small to host such programs, have recruited neighboring communities and established programs as a county to achieve necessary economies of scale. The second recommended intervention is implementation of resident training, or formal community conversations to promote the advisability of supporting entrepreneurship, and to discuss the topic of risk. The third recommendation is to provide interaction opportunities for potential entrepreneurs. Feld (2012) advises

organizing substantive events including stakeholders such as potential financiers, rather than simple socializing gatherings. Interaction events and organizations should also be inclusive of all social and demographic segments acting as trusted partners, to build thicker entrepreneurial communities.

Certainly potential entrepreneurs in rural areas deserve a community's respect and active support. Researchers should continue investigating how to encourage potential entrepreneurs in rural regions. Potential entrepreneurs in the rural Midwest face great challenges, but stories and experiences shared by the panel in the present study were encouraging and represent potential for increasing entrepreneurial intention among residents for potential positive economic impact.


The study makes clear an important point: Nobel laureate Gary Becker (1995) was right; economic development is a human capital development issue. Entrepreneurship supporters might establish public venture funding vehicles, build incubators, decrease regulatory barriers, and provide startup resources; but until they build competencies in individuals, development efforts will be futile. Economies are built and cultures advance when human abilities improve. Because the need for greater entrepreneurship outcomes is urgent, a person interested in making a difference in the world can become involved in building the entrepreneurial abilities of individuals in rural regions.

## APPENDIX A

## PERMISSIONS FOR FIGURE 1

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**Author:** William B. Gartner

**Publication:** The Academy of Management Review

**Publisher:** Academy of Management

**Date:** Oct 1, 1985

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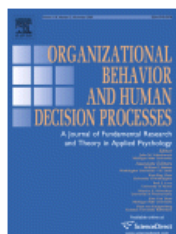
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## APPENDIX B

## PERMISSIONS FOR FIGURE 3



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**Author:** Icek Ajzen  
**Publication:** Organizational Behavior and Human Decision Processes  
**Publisher:** Elsevier  
**Date:** December 1991  
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Original figure numbers	Fig. 1
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Estimated size (number of pages)	180
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Total	0.00 USD

## APPENDIX C

## DELPHI OPENING STATEMENT

## Explanation of Procedures and Expectations

Thank you for agreeing to participate in this study. The results will help community developers in the Midwest to understand entrepreneurs and help find the best ways to encourage more entrepreneurial attempts in the future.

This unique type of study is designed to bring together the knowledge of experts. You are an expert because instead of relying on research about rural entrepreneurship, you have spent time in the trenches helping potential entrepreneurs as they make important decisions in the startup process.

The study consists of two rounds. Here are the steps for you to follow:

1. I will send a link to a short online survey to you and several other panelists. Please consider and answer the questions and submit it.
2. I will summarize responses from the panelists and send the summary to you and the other panelists.
3. When you receive the summary, please consider the reasoning of others who are also experts in helping rural entrepreneurs in the region. They might have some ideas you had not considered. They will do the same with your response. After consideration, please send me your responses to the summary.

The researcher has three requests.

- Please be honest.
- Please complete both rounds of the study. The commitment should only take a few minutes in each of two sessions, spread out over three weeks, but we ask that you continue for the whole process.
- A final plea is that you be aware that one more round might be necessary if agreement is not reached after the second round.

Please email your responses by \_\_\_\_\_.



## APPENDIX D

## DELPHI INSTRUMENT

Completing the survey should only take 15 minutes. Your participation is completely voluntary and you are free to discontinue participation at any time without penalty.

***1) In your region, do potential entrepreneurs mention the "fear of being judged negatively by others for failing?" How do you think "fear of being judged negatively for failing" impacts potential entrepreneurs' desire to startup?***

Please explain and provide examples.

***Please share specific examples of comments potential entrepreneurs have said on the topic of "fear of being judged negatively by others for failing" and their decision to startup.***

***2) Why do you think "fear of being judged negatively by others for failing" is a concern, or is not a concern, in the region?***

Please explain and provide examples.

***3) If some people in the region tend to "fear being judged negatively for failing," which of the following (if any) characteristics influence that feeling?***

(check all that apply)

- age
- educational attainment
- gender
- having had an entrepreneurial parent
- residency in the rural Midwest
- other
- none

*Why do you think so?*

**4) You have probably seen some potential entrepreneurs decide to “take the leap,” and others decide to give up on startup ideas. Have you counseled with potential entrepreneurs who did NOT “fear of being judged negatively by others for failing” (or were able to overcome that fear), because they have stronger belief in their own ability to succeed?**

***Do you think belief in one's ability is a key to overcoming “fear being judged negatively by others for failing”?***

Please explain and provide examples.

**5) In your region, which (if any) of the following characteristics influence a person’s belief in their own ability to succeed?**

- age
- educational attainment
- gender
- having had an entrepreneurial parent
- residency in the rural Midwest
- other
- none

*Why do you think so?*

**6) Can you think of any other local conditions such as personality or environment that might explain why potential entrepreneurs in the region lose start up motivation (i.e. not including structural issues such as funding access or infrastructure)?**

About you:

Location of your workplace (state)?

Highest education degree earned?

Age?

Gender?

- Male  
 Female

Briefly, what is your experience in working with potential entrepreneurs in the region?

***THANK YOU VERY MUCH FOR YOUR PARTICIPATION!  
I WILL CONTACT YOU IN A WEEK OR TWO WITH THE RESULTS FOR YOUR  
REVIEW AND COMMENT.***

## APPENDIX E

## PARTICIPANT INVITATION

Dear \_\_\_\_\_,

You have been nominated by the Midwest CDI organization to participate in a study because you are an expert in rural entrepreneurship through your experience counseling potential entrepreneurs in the Midwest region.

The process will combine the knowledge of experts like you to create more accurate knowledge about entrepreneurship. The purpose is to help community and economic developers in the Midwest to better understand how to help potential entrepreneurs become entrepreneurs. The process should also give you insight that could be useful in your role, as you will be provided with the research findings.

Process

Participation will include taking two 15-minute long questionnaires.

1. The researcher will send five questions to you and several other experts. All participants will answer the questions, and e-mail the responses back to me.
2. The researcher will summarize responses from all participants, and send the summary back to you.
3. When you receive the summary, please consider the reasoning of others who are also experts in helping rural entrepreneurs in the region. They might have some ideas you had not considered. They will each do the same with your responses. After consideration, please send your response to the summary back to me.

An important feature of the method is that all participants will remain anonymous.

Participation is completely voluntary, and you may withdraw from the process at any time. The Institutional Review Board at The University of Southern Mississippi has reviewed and approved the methods of this questionnaire and ensures they meet federal regulations.

Please respond to this invitation by \_\_\_\_\_ to indicate your agreement to participate.

## APPENDIX F

STATEMENT FROM MIDWEST COMMUNITY DEVELOPMENT INSTITUTE  
REGARDING ASSISTANCE IN OBTAINING PARTICIPANT COOPERATION

## APPENDIX G

## THANKS TO PARTICIPANTS

Thank you very much for your participation in this study. Your efforts will be useful in developing new knowledge for economic developers in the rural Midwest.

The results will be analyzed during the next several months. A report will be prepared and sent to you.

## APPENDIX H

## ROUND TWO INSTRUMENT (SAMPLE)

In the previous round, you and other study participants shared opinions about perceived failure intolerance and self-efficacy and potential entrepreneurs' intention to launch new businesses. The results were mixed, with some agreement and a few points of disagreement. The goal of this study is to reach consensus on the statements if possible. Please read the results below and comment.

- 1) Most participants agreed that “potential entrepreneurs in the rural Midwest are far less likely to launch if they feel other residents in town will feel contempt if they fail,” because of \_\_\_\_\_. One participant disagreed, based on \_\_\_\_\_. Does this information affect your opinion?

Please explain \_\_\_\_\_

\_\_\_\_\_

- 2) All participants agreed that potential entrepreneurs in the Midwest who think they live in a failure intolerant area still want to launch businesses if they have self-efficacy.

Any other comments? \_\_\_\_\_

- 3) Participants agreed that gender had no impact on desire to start a business, and that age had some impact. Educational attainment and have been raised by an entrepreneur parent strongly affected the decision. The results were inconclusive about whether being from the rural Midwest affected desire to launch a business, because \_\_\_\_\_. Does this information affect your opinion?

- 4) Some participants believe that self-efficacy is much higher among men than among women in the region, based on \_\_\_\_\_. Others disagreed, saying \_\_\_\_\_. All agreed that self-efficacy grows with age until 55, then declines. All agreed that having been reared by an entrepreneurial parent strongly affects self-efficacy, depending on whether or not the parent was successful. The effect of education was inconclusive, with some saying \_\_\_\_\_ and others saying \_\_\_\_\_. Being from the Midwest was agreed to decrease self-efficacy.

Based on that feedback, is your opinion changed? \_\_\_\_\_

\_\_\_\_\_

## APPENDIX I

## INSTITUTIONAL REVIEW BOARD NOTICE OF COMMITTEE ACTION

**INSTITUTIONAL REVIEW BOARD**

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Phone: 601.266.5997 | Fax: 601.266.4377 | [www.usm.edu/research/institutional.review.board](http://www.usm.edu/research/institutional.review.board)**NOTICE OF COMMITTEE ACTION**

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.  
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 15010503

PROJECT TITLE: What Will the Neighbors Think? Perceptions of Failure Intolerance on Individual Entrepreneurial Intention in the Rural Midwest

PROJECT TYPE: New Project

RESEARCHER(S): Brock Stout

COLLEGE/DIVISION: College of Science and Technology

DEPARTMENT: Human Capital Development

FUNDING AGENCY/SPONSOR: N/A

IRB COMMITTEE ACTION: Expedited Review Approval

PERIOD OF APPROVAL: 01/27/2015 to 01/26/2016

**Lawrence A. Hosman, Ph.D.****Institutional Review Board**



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