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Review of Business

Interdisciplinary Journal on Risk and Society

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From the Editor

For people who enjoy scholarship

In principle, a business ought to thrive when its leaders make good plans (plans that provide for compensation greater than the risk implied in those plans), and its people bring those plans to fruition. However, in practice, dynamic cause-and-effect cascades, knotty interdependencies, complex interactions, the nature of randomness, how people perceive information, changing tastes, regulatory shifts, malicious acts, and so on, all combine to create positive or negative deviations from what is anticipated. The study of risk management encompasses the diversity of actions, processes, and rituals a business adopts, and the battery of instruments it uses, to safeguard its plans.

Businesses rely on risk management both as they formulate plans, and as they implement them. They manage risk either in anticipation of, or in reaction to, events. While businesses have become adept in neutralizing negative deviations to plans, they are still learning how to promote positive deviations. The financial and nonpecuniary costs of managing risk, meanwhile, are adding up.

The literature that examines risk in business is huge. However, the largely opaque way businesses engage with risk, coupled with the fact that the commercialization of academic publishing has established a template for publishing, provides incentives for authors to disproportionally focus on only part of the spectrum of how businesses engage with risk. Most of the risk-in-business literature falls into one of three distinct study frameworks. The first framework adopts an event view of a business. From this perspective, a loss from flooding, for example, is studied independently and separately from a disruption in a supply chain. The second framework classifies risk in terms of contrasting concepts. Popular contrasts are between risks that stakeholders can diversify on their own and risks that they cannot; between risks associated with activities over which a business has some comparative advantage (core risks) and non-core risks; and between risks associated with a business' tactical and strategic actions. The third framework follows the classification system first proposed for financial derivatives in 1993 by the Global Derivatives Study Group. Its core classifications (which are themselves sub-classified) are market risk, liquidity risk, and credit risk.

By far, most of the risk-in-business literature (as confirmed by a recent search of keywords in a comprehensive publication index) falls within this third framework for the study of risk, the classification system of the Global Derivatives Study Group. It is not surprising that the study of market risk, liquidity risk, and credit risk is popular. The popularity of these risks as publication subjects reflects, in my opinion, how well they fit the prevailing publishing template, especially if one hopes to publish in a journal that has cultivated (or aspires to) a large impact factor. This template appears to require a lot of granular data which conveys a sense of authority, overly complex modeling which conveys a sense of importance, and favorable citation of standard works which conveys acceptance of the established powers. However, there is much more than data-rich financial events to how businesses engage with risk.

Take, for example, the paper on military veteran employment in this issue. The paper posits that there are significant social and psychological differences between military veterans and nonveterans, and thus the new influx of veterans within U.S. firms is likely to moderate their risk-performance dynamic. The systematic study of the impact of veterans in U.S. business is in its infancy. Also consider this issue's article that examines the presence of fear in the workforce. Since we know that the behaviors people develop to cope with fear often bias their objective reality, then fear in the workplace is likely to also moderate the risk-performance dynamic of firms. Even within well-developed literature there are embedded implications relating to risk. For example, the review paper on firms' common control by institutional investors offers a novel avenue for research on strategic risk. Similarly, the paper on Social Security points to several avenues for research. For example, businesses have reduced their exposure to uncertainty by curtailing retirement benefits to employees and so longevity risk has been effectively transferred from business investors to taxpayers. Many of these taxpayers, however, by taking their Social Security early are overpaying for taking on such a risk. The remaining papers in this issue look at the symbiotic nature of the risk relation between business and society. The paper on access-based consumption highlights the grip that information and communication technologies have on consumers' risk attitudes and preferences. The paper on risk communication reconceives non-profit business as heralds of emerging risks in society.

Indeed, I am partial to Grassmann 1986[1] and Macdonald 2015[2] argument that, for people who enjoy scholarship, what a paper says and how easy it is to understand is still more important than where a paper is published.

Nicos A. Scordis

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[1]Grassmann, Winfried. 1986. "Is the Fact that the Emperor Wears No Clothes a Subject Worthy of Publication?" *Interfaces* 16, no. 2: 43–51.

[2]Macdonald, Stuart. 2015. "Emperor's New Clothes: The Reinvention of Peer Review as Myth." *Journal of Management Inquiry* 24, no. 3: 264–79.

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Nonprofit Organization Communication: Risky Business

Fabienne T. Cadet

Ryall Carroll

Abstract

This paper highlights the role of nonprofit organizations in communicating risk. Nonprofit organizations have emerged as vital actors in not just working toward the benefit of human welfare and bettering society, but also making society aware of hazards or risks that exist. The approach used to communicate risk is a critical element that ultimately will lead to the success or failure of a nonprofit organization's mission and objectives. Finding ways to communicate risk is a challenging task that requires being able to first make people aware of the significance or value of an act/idea or existing state, communicating the danger at hand, and then drawing on the causal relationship between the two. Although a major function, the literature on risk communication of nonprofit organizations is scarce. This article draws on the relational theory of risk, which includes three elements: object at risk (value), risk object (danger), and association (Boholm and Corvellec 2011). We recommend that the best way for nonprofits—and in some instances other organizations—that need to communicate risk is to communicate this risk through the use of narratives.

INTRODUCTION

The concept of risk is regarded as a semantic frame for the construction of networks of objects and categories, associated by known or supposed contingent causal links of inflicted harm (Arvai and Rivers 2014). One of the major elements of risk is the pivotal role of the relationship between two entities. The concept of risk promotes a certain type of knowledge that spells out and evaluates associations between objects in terms of uncertain harm, value, and benefits (Arvai and Rivers 2014). Hence, risk can be defined as a relational concept. Risk is relational in the sense that it results from a cognitive act that establishes a relationship between a risk object and an object at risk, so that the risk object is considered, in some causal but contingent ways, to threaten a valued object at risk (Boholm 2009). Risks can be described as objective-relational. They are not fully objective nor fully subjective. A good example of this can be demonstrated with a lion. Objectively speaking, a lion is an animal and not a risk, however,

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in certain situations, individuals can find themselves confronted with the risk of being attacked by a lion, thus making the existence of risk relational (Gregersen 2003).

Since risk is a social construct it can make even so-called "virtual" risk objects such as smoking, global warming, genetically modified organisms (GMOs), electromagnetic fields, or aspartame (Boholm 2009) into tangible and quantifiable risk objects (van Loon 2002). Nonprofit organizations have emerged as vital players in creating initiatives to make society aware of these risks, as well as combating them. Nonprofit organizations provide a vast array of human services, such as job training programs, child care centers, and programs for seniors, just to name a few. Therefore, the very process of determining and quantifying any type of risk can be viewed as a communication process that requires one to construct a network of semantic associations between objects (van Loon 2002). Knowing how to effectively communicate risk is crucial to a nonprofit organization's success.

This article contributes to the body of knowledge by establishing the relationship between risk and nonprofit organizations in highlighting the role of nonprofit organizations in communicating and conveying risks to society. Additionally, this article recommends an effective approach for nonprofit organizations to communicate risk through the use of narratives. This article adds to the body of knowledge by demonstrating and building a case for why narratives are effective for nonprofit organizations, and we propose why these same reasons could factor into why risk (when appropriate) should be communicated in narratives.

The paper begins by explaining the basics of risk and the challenges that can arise in the communication of risk. Next, the paper explains the significance of the receiver of risk communication, highlighting how risk is relational and drawing in the relational theory of risk and its three key variables. The paper then proceeds to review nonprofit organizations and the positive impact they have when using narrative persuasion in their communication strategy. In this section, we also explore how the relational theory of risk can be applied to nonprofit organizations in their role as risk communicators. This is followed by a comprehensive review of narratives as a way to communicate risk. The last section of the paper further solidifies the relationship between nonprofit organizations and relational risk by providing concrete examples of the effective use of narratives in the communications of exemplar nonprofit organizations. The paper concludes with a summary of its key ideas and managerial implications.

RISK AND THE COMMUNICATION OF RISK

In most fields of study, a risk is often thought of as having to make a choice that will result in a potentially positive and potentially negative outcome. Individuals are constantly placed in situations to determine the risks involved in the decisions they make on a daily basis. According to Mary Douglas's *Risk and Blame* (1992), society is structured for the cooperative management of risk. In society, there is a constant discussion on understanding risk, interpreting risk, managing risk, and finding ways to mitigate risk. Risk is a highly subjective term. Classifying an object as "a risk" involves a symbolic process of depiction that, by means of categories, associations, distinctions, evaluations, and argumentation, establishes the "risky" aspect of an object (Arvai and Rivers 2014). In society

today individuals are faced with risk in virtually all aspects of their life, ranging from their external environment to their internal individual health. Climate change, water contamination, gun violence at schools, child vaccinations, and newly discovered diseases, such as Zika, are just some of the risks that many face on a daily basis in social media, news media, politically charged ads, or in their doctor's office (Morgan et al. 2002).

The communication of risk can take on various forms. Communication on risk can be informal, spontaneous, and narrative. The substance of such communication can vary from what might be considered *experience near,* something that is relatable since it is familiar and known since it is part of everyday life, to what might be considered *experience far,* something that is more foreign, hypothetical, or something the individual has no experience with (maybe even technical in nature that uses technical terminology) (Boholm 2009).

The best way to communicate risk has been a topic of great discussion. Influenced by Habermas's (1985) theory of communicative rationality, in an attempt to handle the diverse social interests, concerns, attitudes, beliefs, and uncertainty in risk assessment, risk communication attempts to steer clear of one-way distribution of information based on expert judgements of "objective" risk to the general public, but instead advocates that risk communication aims for a two-way dialogue. This two-way dialogue facilitates a more empathetic, considerate, and respectful interaction with varying opinions and viewpoints to be expressed (Renn 2004). Using this two-way dialogical model, the term *risk communication* is often used to describe a broad spectrum of communication activities where the key aspects are trust and transparency and where effective risk communication is seen as a requirement for fruitful risk management. This can range from government practices to programs that aim to enhance the legitimacy of the decision-making process (Boholm 2009).

One of the most common approaches to communicating risk is instilling fear or shock in the message recipient. Health education practitioners often try to persuade the public that they should become afraid of something that they do not really fear by aiming to trigger strong emotions. However, this approach has proven to be ineffective. Such campaigns are often doomed to fail for two reasons: the unconscious affective system cannot be forced to register something it is not programmed for, and the cognitive system is highly experienced in warding off unpleasant, threatening health messages with defensive strategies (Das 2011). As a result, in practice, many times the communication of risk is ineffective, as many health campaigns aim to shock people into persuasion by using vivid imagery of the severity of a health problem, such as the cigarette warning labels of diseased lungs or heart surgery (Das 2011).

Risk communication becomes a means for communicating beliefs and ideologies as much as being about the attention, perspectives, and actions related to the risk itself (Palenchar and Heath 2007). Like any other form of communication, risk communication can be both positively and negatively utilized. In the wrong hands, risk communication can be effective at brainwashing and promote bad policy, regulation, or laws. However, in an ideal world, risk communication would only be used to heighten awareness and understanding in situations such as natural disasters, communicating the appropriate levels of caution required of those in particular situations, and facilitating proper behaviors around health and safety issues (Palenchar and Heath 2007).

RECEIVER OF RISK COMMUNICATION

As mentioned previously, risk is both objective and relational, therefore the receiver of risk communication is a critical factor to consider. Take for example the case study of more than a dozen communities in Maine and New York that were exposed to groundwater that had been contaminated by hazardous chemicals (Fessenden-Raden, Fitchen, and Heath 1987). This case study exemplified the complex nature of having multiple components within risk communication—a messenger, a receiver, and the message—which resulted in issues due to a lack of attention placed on the importance of the receiver in the process. The results of the study emphasized the attention that must be placed on understanding the characteristics of the receiver, empathizing and effectively communicating to the receiver in a more deliberate manner in risk communication (Arlikatti, Taibah, and Andrew 2014).

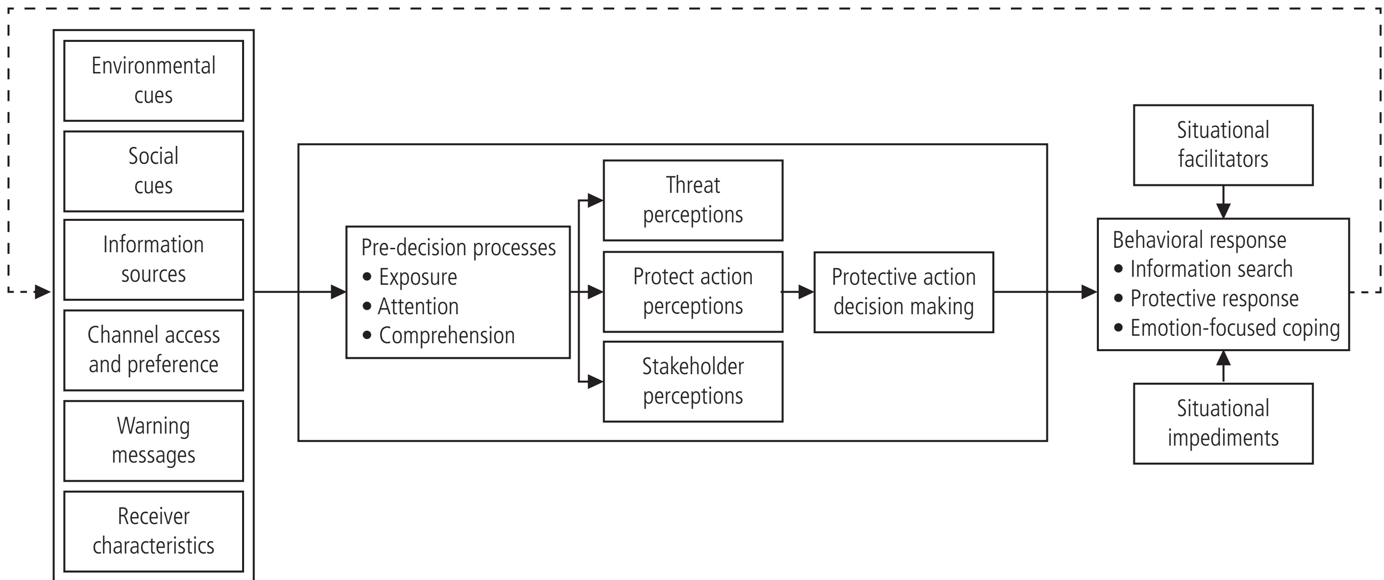
Early research on risk communication draws on the key psychological finding that a person's understanding of risk is cognitively biased. A conventional understanding was established in the risk research community that people tend to over- or underestimate risk, owing to qualitative framing in terms of parameters such as perceived control, voluntariness, understood dreadfulness of consequences, and benefits (Arvai and Rivers 2014). Therefore, risk is highly based on an individual's specific circumstances and social surroundings. Audiences understand messages about risk, according to the social practices and power relationships that condition the lives of those concerned (Chess, Salomone, Hance, and Saville 1995). Arvai and Rivers (2014) suggest that effective risk communication should involve taking into consideration individuals' values and preferences.

More recently, Lindell and Perry (2012) developed the protective action decision model, employing both the classical persuasion model and the communication network model. The model exhibits how the risk communication process initiates protective action behavior among recipients (Figure 1). Since risks are made up of relational networks and their interpretation and understanding are based on the communicator and the recipient, there can be complications that can arise in their communication process. An individual's perception of risk can be based on a multitude of factors. It has been demonstrated how difficult it can be to assess an individual's risk perceptions quantitatively since their risk judgments are somewhat subjective and can be influenced and guided by past events, their beliefs about the future, and other personal variables (Slovic 1986). Therefore, an individual's interpretations of risk communication are based on a relational construction that includes personal perceptual bias guides (Planalp 1985). The model highlights influential factors such as the perceived degree of risk to public health and welfare, demographic and psychological characteristics of the receiver, the characteristics of the information source and information channels used, perceived environmental cues, as well as potential impediments engendered in the social context and message content (Arlikatti, Taibah, and Andrew 2014).

Risk Communication Is Relational

Thus far, we have discussed how risk communication is highly dependent on both the sender and receiver of the message, making it relational by nature. The authors

FIGURE 1. Protective Action Decision Model



Reprinted with permission from Lindell, Michael K., and Ronald W. Perry. 2012. "The Protective Action Decision Model: Theoretical Modifications and Additional Evidence." *Risk Analysis 32,* no. 4: 616–32. Copyright © John Wiley and Sons.

Burgoon et al. (1987) have taken a perceptual approach to relational communication and defined it as the affective tone of a relationship that is "characterized by a set of central themes or dimensions with underlying messages and meanings that are exchanged" (Witte and Zmuidzinas 1992). For instance in Burgoon et al. (1987), it is suggested that in doctor-patient relationships, relational messages include expressions of similarity, dominance, formality, composure, and immediacy, and are more likely to occur at the nonverbal level. Witte and Zmuidzinas (1992) found that relational messages of receptivity, similarity, and immediacy exhibited a significant inverse relation with patients' risk perceptions. It is likely that the relational dimensions of a communication impact not only our perceptions of health risks, but our perceptions of other risks, too (e.g., pollution, automobile accidents, job security, etc.) (Witte and Zmuidzinas 1992).

The foundation for this paper rests on the relational theory of risk. The relational theory of risk indicates that compelling risk communication hinges on the understanding of the interaction, association, and connection of the objects at risk and risk objects (Arvai and Rivers 2014). The relational theory of risk (Boholm and Corvellec 2011) includes three elements—object at risk, risk object, and association. An *object at risk* has been endowed with value and that value is not considered in jeopardy. This value can be of varying kinds: economic, environmental, symbolic, or something else, depending upon the priorities of the interpreters. A *risk object* is akin to what in the risk literature is sometimes referred to as a hazard or a danger. The third element of the relational theory of risk is the *association* that an interpreter establishes between a risk object and an object at risk; the risk object threatening the value of the object at risk (Arvai and Rivers 2014).

The relational theory of risk indicates that a risk is always a hazard, which can sometimes be natural or sometimes social for an individual in a given social nexus (Gregersen 2003). As a relational construct, the concept of risk, resembles

the semiotic concept of *meaning,* which according to pragmatist philosopher Charles Sanders Peirce, can be construed as an outcome of a three-part relationship: meaning means something (the content of meaning) for somebody (the interpreter) in a given situation (the context of meaning) (Gregersen 2003, 356). Therefore, from a relational perspective, the concept of risk is a moment in time that presents a real-world object in connection to other objects (that are sometimes concrete and sometimes "virtual") and articulates a dimension of danger based on what the individual knows and believes regarding their potentially harmful causal relationships. Risk functions as a semantic structure for associations, objects, and categories (Fillmore and Atkins 1992) that creates the possibility of assessing foreseen future outcomes (Boholm 2009).

Based on this theory, risk communication is a construction of the cognitive systems of the individuals involved put into a framework of causally relating a contingent threat to a possible loss of an object endowed with value. Put simply, effective risk communication is dependent on a mutual understanding of what comprises a threat, a value, a contingency, and a causal relationship—understanding, where dialogue is the key, not simply persuading. Therefore, the essence of risk communication is for the communicator to have an empathetic knowledge of how the receiver perceives the risk object, an object at risk, and the interaction and association of risk between the two (Boholm 2009). A relational theory of risk, therefore, suggests two parts: "a research and a practical agenda" (Boholm and Corvellec 2011).

Risk communication is sometimes *affirmative* in the sense that it aims at demonstrating, for an audience, the existence of a relationship between a risk object and an object at risk. Sometimes it can be *disclamatory* in the sense that it argues against the existence of any characterization of objects in terms of risk (Arvai and Rivers 2014). This is in line with the relational theory of risk, which indicates that compelling risk communication hinges on the understanding of the interaction, association, and connection of the objects at risk and risk objects (Arvai and Rivers 2014). One of the key aspects is that the receiver is not being persuaded, but instead they are gaining an understanding—this can be facilitated through the use of a narrative.

NONPROFIT ORGANIZATIONS

Although academic literature on the nonprofit sector is relatively recent compared to other academic research, nonprofits, foundations, and charities have been at the forefront of vital community and human resource needs since as early as the 1600s. As an integral part in the community and human services field, nonprofit organizations play a vital role in helping to deliver services and providing a platform for individuals to engage in the democratic processes of problem-solving (Hall 2010). Most of them are small grassroots or community-based grounded in the needs of communities for a specific geographic area or population (Norris-Tirrell 2014). Nonprofit organizations impact communities and individual engagement through programs, experiences, and interactions that

1. Engage volunteers and donors
2. Bring community members together

3. Collaborate with organizations within and beyond the community
4. Promote community education and awareness (Shier, McDougle, and Handy 2014)

Nonprofit organizations provide some of the most basic and essential services to those who need it most—services such as access to clean water, food, shelter, education, and access to medicine. However, despite the vital work most of these organizations perform, many lack resources and find themselves understaffed and underfunded (Carroll and Kachersky 2018). Since these nonprofits are in constant competition vying for resources of the philanthropic funders, foundations, and governmental grants, it is imperative for them to communicate the consequences of their inability to provide their vital services. These organizations are in essence communicating to society what the risk is if they are not able to provide their services. The more effective the organization is at communicating the risk, the more likely they are to succeed in obtaining much-needed resources.

Nonprofits Use Storytelling/Narratives

Just like any business, nonprofit organizations must also find ways to effectively make the public aware of their objectives through marketing techniques and strategies. Escalas (2007) defined *storytelling* as the presentation of information in a way that links the individual to, for instance, a brand such that meaningful self-brand connections are formed. The individuals' response in turn may be narrative processing; hence the term *storytelling* refers to a narrative format of the message from the sender, whereas narrative processing refers to the receiver's response (Carlsson Hauff, et al. 2014). Nonprofits have typically relied on storytelling as a means of marketing their respective causes to publics (Marchand and Filiatrault 2002). Storytelling communicates lessons, ideas, concepts, and connections as a way of sharing information and experiences through narrative and anecdotes (Sole and Wilson 2002). This has been found to be a comfortable way of sending as well as receiving information. From a marketing perspective, storytelling has been defined as an act of describing real or imaginary events using words, visuals, and/or audio, which are instrumental to informing existing and potential consumers what a company is about in order to create meaningful connections with consumers that encourage loyalty through entertainment or emotional connection (Sole and Wilson 2002).

According to Goodman (2006), stories tend to convey ideas better than mere facts. Goodman (2006) also states that nonprofits should create stories out of the constituents they serve as a means of relating the issue to members of the public. Thus, we can say that through the use of stories, nonprofit organizations make their communications "relational." Stories are structured in such a way that they produce an unbalanced state within the reader (Papadatos 2006). This unbalanced state is triggered by an incident in the story. The incident engages the reader with the protagonist and attempts to persuade the reader to take some action to resolve this unbalanced state created by the incident. This format is effective because of what Cialdini et al. (1987) refers to as the negative state relief model. This model implies that a person may engage in charitable behavior not out of selflessness, but rather to repair a negative mood state (e.g., sympathy,

anger, sadness) incited by the organization (Cialdini et al. 1987). Future studies have supported this model. Nonprofit organizations typically incite negative emotions in publics as a means of activating giving intentions (Basil, Ridgway, and Basil 2008). Marchand and Filiatrault (2002) found that by inciting negative emotions and presenting the possibility of positive emotions through engagement, it is possible to affect the behavioral intentions of publics.

As discussed earlier, relational theory of risk rests on three elements: object at risk, the risk object, and the association established between a risk object and an object at risk (Boholm and Corvellec 2011). An *object at risk* is something endowed with a value that is considered at stake. A *risk object* is akin to what in the risk literature is sometimes referred to as a hazard or a danger. The third element of the relational theory of risk is the *association* that an interpreter establishes between a risk object and an object at risk; the former threatening the value of the latter (Arvai and Rivers 2014). See Figure 2.

If we take Figure 2 and insert prominent nonprofits we can see how the relational risk model fits most nonprofits in Table 1.

Narratives as a Way to Communicate Risk

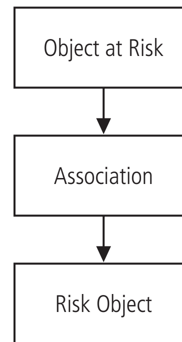
Advertisers have long understood the value of narratives as a persuasive tool that evokes processing distinct from other message formats (Hamby and Brinberg 2016). It has been shown that stories persuade through different processes than argument-based messages (Escalas 2007). Narratives are designed to transport the audience. Transportation can be described as the mental imagery, emotional engagement, and details of the narrative world (Hamby and Brinberg 2016). Transportation theory suggests that when people are transported into a story, their attitudes, intentions, and beliefs can change to reflect that of the narrative (Green and Brock 2000). Transportation is defined as “an integrative melding of attention, imagery, and feelings, focused on story events” (Green 2004, 247). This can lead to persuasion as a result of

a. Transported individuals are so absorbed in the story that they are less likely to counterargue and therefore come to believe the story propositions
b. Transportation makes the story seem more like actual experience
c. Transported individuals may identify with or develop strong emotions for the characters of the narrative, making their perspective have greater influence on the beliefs of the reader/listener/viewer (Green 2004)

This persuasion process occurs as a result of the individual empathizing with the characters and it will likely reduce an audience member’s motivation or ability to produce counterarguments against the character’s viewpoint (Escalas 2007).

One of the most commonly used ways to communicate risk is through the use of narrative persuasion. Sharf and Vanderford (2003) explain, “Narratives not only reflect individual views of the world but also provide explanations for why things happen in certain ways” (14). As mentioned previously, telling stories has been found to result in positive outcomes for nonprofit organizations. Telling the story of constituents and presenting the possibility of a favorable

FIGURE 2. Relational Risk Diagram



outcome is the foundation for fundraising efforts (Warwick 2001). Taking previous research of the emotions in regard to charitable giving, as well as the relationship between nonprofit missions and storytelling, Merchant, Ford, and Sargeant (2010) developed a structured narrative, which consisted of a problem statement intended to invoke negative emotions as well as a resolution phase in which publics can take action to resolve the problem (e.g., volunteering, donating) in an attempt to deal with the previously invoked negative emotions. Using an experimental design, the researchers tested whether different parts of an organizational narrative could impact readers' intentions and attitudes toward the organization. The results of this study indicated that problem statements in organizational narratives produced negative emotions and that the possibility of donating or getting involved in some capacity positively influenced readers' intentions toward the organization in order to overcome these emotions. Essentially, these findings demonstrate that charitable organizations can use structured storytelling as a means of influencing the behaviors and attachments of publics with the organization (Merchant, Ford, and Sargeant 2010).

Persuasive communication tends to be met with resistance and counterarguments. The use of narratives can help overcome these challenges. If an individual can be absorbed in a story or carried away into a narrative landscape it can inhibit the individual's ability to counterargue (Kreuter et al. 2007). Additional-

TABLE 1. Relational Risk Model Applied to Nonprofits

Nonprofit	Object at Risk (Object That Has Value)	Risk Object (the Danger or Hazard)	Association (Causal Link between a Risk Object and an Object at Risk)
American Cancer Society	Health	Cancer	If people get cancer it can put their health at risk and can be fatal
Big Brothers, Big Sisters	Youth development (personal, social, and educational)	No positive relationship with an adult of the same gender	If young people lack a positive relationship with an adult of the same gender it can hinder their development and can lead to negative life outcomes
charity: water	Health	Dirty water or limited access to water	If people only have access to dirty water or limited access to water it can have a negative impact on their health—especially for women and children
Feeding America	Family health, mental, and physical well-being	Hunger	If families do not have food it will result in hunger and malnutrition which can have a negative impact on their health and mental and physical well-being

ly, narratives can be difficult to discount since the stories told tend to be a real and tangible experience lived by an individual (Kreuter et al. 2007). Also, since narratives can be a more subtle form of persuasion, they help to minimize potential resistance. Lastly, individuals may not be aware of the persuasive intent of the narrative when they are engaged and may not have their guard up and the focused attention to creating potential counter-attitudinal thoughts (Kreuter et al. 2007).

Recent findings support the assumption that narratives can be an effective strategy to increase perceived risk and adaptive behavioral responses (Das 2011). The capacity to express temporality and causality through employment is how narratives develop their meaningfulness and communicative efficacy (Corvellec 2011). Narratives are effective in increasing perceptions of risk, changing social norms, and promoting adaptive health behaviors by transporting message recipients into the effective route, i.e., the feeling of risk. When individuals feel at risk they may become motivated to undertake action without much deliberation (Das 2011).

Carlick and Biley (2004) identified six different ways narratives can be used to communicate the risk of cancer. First, the narrative's temporal structure can impose a sense of order over the chaos that cancer imposes. Second, the storytelling process itself can provide the distance and perspective needed to view cancer as a series of solvable problems or a life event with opportunities to make positive life changes. Third, life review narratives that highlight relationships, accomplishments, and values can enhance dignity as cancer erodes it and lay the groundwork for a tangible life legacy product. Fourth, in quest, hero, or recovery narratives, people cast themselves as adventurous protagonists who try new approaches and adopt dramatic metaphors in their fight against cancer. Fifth, the story of illness, suffering, loss, and redemption can be told beautifully—or at least powerfully. Thus aesthetic narratives that resonate with a deeply shared human experience can benefit and inspire both story creator and audience. Finally, *polyphonic* (or many-voiced) narratives articulate the human complexity associated with cancer. That is, people hold many contradictory thoughts and feelings about cancer and death and dying. Paradoxically, people simultaneously hope and despair; accept, fight, and deny a terminal diagnosis; and recognize psycho-spiritual benefits in spite and because of tragedy and suffering.

EXAMPLES OF NARRATIVES IN RISK COMMUNICATION

To help demonstrate why narratives should be used to risk communication, let us explore how narrative persuasion has been utilized as a risk communication tool by the prominent nonprofit organizations mentioned in Table 1.

The American Cancer Society's use of narrative persuasion in advertising campaigns is highly evident. To date, at least two narrative features have yielded promising results in cancer control: whether characters live or die (story outcome) and the types of barriers characters face to healthy behavior (Krakow et al. 2017). Just last year (2017), the American Cancer Society launched a brand new advertising campaign. The campaign included three spots featuring current and former cancer patients speaking directly to the camera, explaining how

American Cancer Society's services helped them in their fight against cancer. Another one included the perspective of an American Cancer Society helpline representative, underscoring the importance of the 24-hour service. Irma Goyal Shrivastava, the American Cancer Society's senior vice president of strategic marketing and alliances, stated, "By bringing people into these lives … you can see yourself in that situation..." (Oster 2017).

Big Brothers Big Sisters has also made narrative persuasion a major communication tool. The youth mentoring program, founded in 1904, describes its mission on its website as to give all children in New York City who face adversity an opportunity to experience a strong, enduring professionally supported one-to-one mentoring relationship with adults that will help change their lives for the better (Oster 2016). One of the most successful advertising campaigns launched by Big Brother Big Sisters was the Start Something™ campaign, which included a unique multiple-episode social media reality documentary. "By observing our successful mentoring program unfiltered, current and prospective donors, volunteers and partners can see exactly how their investment in Big Brothers Big Sisters helps children overcome adversity to beat the odds," said Big Brothers Big Sisters president and chief executive officer Karen J. Mathis (Ad Council 2011).

Charity: water's most successful campaign was its September campaign launched in 2015, which showcased the amazing stories of people from the past who have raised funds for charity: water doing things like eating, marching, biking, etc. while encouraging others to join and get involved. Charity: water is an organization making their case (need, solution, and impact), but they are doing it through short stories of their supporters and not the organization itself (Josephson 2017).

Feeding America, the largest U.S. hunger relief organization, launched its "Stories of Hidden Hunger" campaign in 2018. The campaign was meant to drive empathy for those who struggle to feed their families. One of the public service announcements is set to "There was an Old Woman Who Lives in a Shoe" being read by a child, and shows a mother coming home from her day working in a preschool classroom not having enough food for dinner (Wohl 2018). The storytelling, complemented by scenery that seems both washed out and realistic, is an attempt to tell human stories that statistics cannot (Wohl 2018).

CONCEPTUALIZATION/MANAGERIAL IMPLICATIONS

This paper highlights the role of nonprofit organizations in the communication of risk. There is no question that nonprofits play a pivotal role in our society today. Like for-profit organizations, nonprofits must find ways to communicate their "offering" to the public. This offering is most often tied to social initiatives which involve communicating the risk of taking part or not taking part in a certain action, which results in a negative societal outcome—the risk. As demonstrated in the examples above, from the prevention of cancer to feeding the hungry, in an effort to motivate individuals, nonprofit organizations have relied on the use of narratives in their communication strategies.

Drawing on the relational theory of risk, which identifies three key elements—object at risk, risk object, and association—we recommend that nonprofit organizations (and in some instances, for-profit organizations as well) utilize narratives when communicating risk. The relational theory of risk is based

on the notion that the best way to communicate risk is to ensure that the communicator has a deep understanding of the receiver. This creates a communication for the receiver in which the receiver first fully understands the value of the object, then the potential hazards or danger of the object, and lastly the connection, which is ultimately the causal relationship between the object at risk and the risk object. We believe that without a comprehensive understanding of these three elements, an organization's risk communication strategy is doomed to fail.

Furthermore, we recommend that the best way to ensure all three elements are included is through the use of narratives. Through the use of narratives, the organization tells a story, which immediately works to captivate the audience's attention. It then allows for an increased likelihood of understanding the value associated with the organization's cause, meanwhile invoking an emotional response, which then makes the communication both personal and relatable.

This article advocates for the use of narratives in risk communication by nonprofit organizations based on the relational theory of risk. We are not, however, advocating for the use of narratives in all risk communication. There are a great many times when the use of narratives may be inappropriate or even misleading, In other words, with ill intentions the use of narratives in communicating risk may do more harm than good. As mentioned previously, in the wrong hands, risk communication can be effective at brainwashing and promoting bad policy, regulation, or laws. Since the use of narratives can reduce the amount one counterargues, make the situation relatable, and tap into the receiver's emotions, we feel that narratives in the communication of risk in certain financial, legal, investment, etc. situations should actually be discouraged.

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The U.S. Social Security System: How It Works, Its Financial Situation, and the Short-Changed Benefits Paid to the Most Vulnerable

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Abstract

In 2018, the Social Security Administration Trust Fund has a balance of $2.9 trillion, and is expected to be fully depleted by 2034 if no changes are made. What changes will be made remain to be seen. However, here and now an evaluation of the present payout scheme is made to determine what needs tailoring going forward. The literature review reflects that lower benefits go to the lower educated, the lower incomed, the unmarried, and to minority groups, due purely to the fact that the benefits paid are a function of the taxes paid, which are a function of income. The research interest here is to project, on a macro level, the aggregate lifetime dollar difference between what will be paid to one group of earlier claimants as opposed to how much would have been paid if they collectively deferred to full retirement age (FRA). The finding herein is that the group of early claimants from 2014 will collectively lose approximately $26 billion by collecting before FRA. This is unfair and does not reflect market fairness. Proposed is a payment scheme that increases the benefits paid to the early claimants by 6.9 percent on an annual basis to correct for this imbalance.

INTRODUCTION

The Social Security Act of 1935 was signed into law by President Franklin Delano Roosevelt 83 years ago. According to Hansen (2008), passage of the original Social Security Act in 1935, Public Law (P.L.) 74-271, represented one of the watershed achievements of social welfare reform in American history. "For the first time workers were guaranteed a basic floor of protection against the hard-

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ships of poverty" (41). It provides Americans with retirement benefits funded by payroll taxes. The fund pays workers a benefit if they have paid into the program for at least 40 quarters and are of retirement age. The Social Security program provides benefits based on the amount claimants have paid in over their working lifetime and the age at which payments are initiated. The payroll tax is a flat rate—paid by the employee and matched by the employer—that is applied to annual taxable wages on which a limit is set. For example, for 2018 the current tax rate for Social Security is 6.2 percent for the employee and 6.2 percent for the employer on the first $128,400 of annual wages. Wages earned in the year over this amount are not subject to Social Security taxes. The greater the amount paid in, the greater the benefits when collected. However there is a limit on the maximum amount that can be collected, regardless of the amount paid in. In addition to Social Security tax, another 2.9 percent is imposed for old age medical coverage called *Medicare*. This is paid again by the employee and employer, however there is not a limit on the amount of wages subject to the tax; all wages are subject to the tax.

The payout works like a single life annuity: the payments are made over the lifetime, with no residual value at death. Thus, the present value of the amount received depends on, among other factors, the length of time between when benefits are initiated and death. Thus, the longer the life, the greater the benefits. It is not necessarily a "fair" method of benefit allocation, as those who die soon after initiating their benefits do not recoup their paid-in taxes, while those who have extended longevity can collect much more than the amount paid. The system is designed so that retirees do not need to worry that their benefits will run out. The monies are pooled together and are paid out over the retirement period, whatever that may be, which is comforting to most. According to MacKenzie (2017) Social Security protects against longevity risk, and as beneficiaries encounter a longer life expectancy the risk that they will outlive their financial assets is a significant concern.

Social Security is akin to what we in the United States call a *defined benefit retirement plan*. Defined benefit retirement plans are diminishing rapidly among corporations because the plans have become very expensive basically due to the increase in life expectancy. Also, the actuarial value of benefits must be disclosed on the income statement of a corporation as an expense, and on the balance sheet as a liability, for the total amount. Defined benefit retirement plans differ from Social Security as they do not require a contribution from the worker, but are funded only by the employer, as part of the worker's benefit package. The Social Security Program is also very different from a 401K, which is another type of retirement plan sponsored by the employer that is given preferential tax treatment to encourage funding. In 401Ks the worker, for the most part, makes contributions to the retirement account and deducts those payments from the taxable income, with the plan that these funds will grow in value over the years to be used for the retirement period. When the distributions are made, it is likely they will be taxable at a rate which will likely be lower than the working period rate, since income tax rates in the United States are progressive and most retirees experience a steep decline in taxable income. Also, these monies must be managed by the owner in terms of contribution, investment, and distribution, and any short fall or excessive amounts are personally borne. Individuals are

encouraged to have more than just the Social Security to fund retirement, since according to Forbes (Rae, 2018) the average monthly Social Security payment is $1,404 for those at full retirement age. The maximum payment for 2018 is $3,680 per month, but that is for those who have had the maximum taxable wages over the highest 35 years, which would likely be in the six figure range.

The payout scheme is also not linear. Those with lower earnings are paid out a larger share than those with higher earnings. The Social Security Administration keeps a record on every worker which reflects all the years paid in along with the corresponding taxable income. Between the ages of 25 and 60, the Administration mails to the participant a statement of account, with different payout amounts earned at age 62, 66, and 70 based on projected amounts and continues the mailings every year after 60. Participants are encouraged to open their own accounts on the website to check for wage discrepancies. It also supplies a calculator that can be used to calculate benefits to be paid with different scenarios. The Administration is quite transparent in this regard. Since its inception, the Administration invests the money only in U.S. government securities. These are low interest bearing investments that are basically risk free. No other investment is allowed; not in the stock market, mutual funds, or international investments since these investment vehicles all entail elements of risk. In hindsight, this is unfortunate, given that these investments over time have fared better in comparison, and if they had been opted for, the trust fund would be in a stronger financial position than it is in today. Table 1 was taken from the Social Security Administration report on December 2014. The Old-Age, Survivors, and Disability Insurance Program (OASDI) is an essential economic source of funds to 59 million people in 2014. The benefits paid out for that year were $714 billion and the total receipts paid in $769 billion, giving a surplus of $55 billion.

The 2014 balance was $2.7 trillion, which can be seen in Table 1.

At the end of 2017, according to *Status of the Social Security and Medicare Programs: A Summary of the 2018 Annual Reports,* which is published by Social Security and Medicare Boards of Trustees, the report showed a balance of $2.9 trillion. The following was taken from that report:

> The Social Security program provides workers and their families with retirement, disability, and survivors insurance benefits. Workers earn these benefits by paying into the system during their working years. Over the program's 83-year history, it has collected roughly $20.9 trillion and paid out $18.0 trillion, leaving asset reserves of $2.9 trillion at the end of 2017 in its two trust funds.

We are not alone as the National Social Security Fund of China (Leckie and Pan 2007) and Mexico (Espinosa-Vega and Sinha 2000) are going through a similar crisis. This is more dire than what has been previously expressed by Hakkio and Wiseman, who in 2006 reported that the Social Security fund would run out of money by 2041. This is not to say to that the Social Security Administration has not been actively involved over the years in implementing legislation that reduces benefits and beneficiaries and increasing the retirement age, while increasing Social Security and Medicare taxes on payroll, as well as taxing certain Social Security benefits. Table 2, taken from Hakkio and Wiseman 2006, lists chronological changes in Social Security from 1932 through 2000.

TABLE 1. Annual Statistical Supplement to the Social Security Bulletin, 2015

	Receipts [a]					Expenditures				Assets	
Year	Total	Net payroll tax contri-butions [b]	Income from taxation of benefits	Reimburse-ments from the general fund of the Treasury [c]	Net interest [d]	Total	Benefit payments [e]	Adminis-trative expenses	Transfers to Railroad Retirement program	Net increase during year	Amount at end of year
1937	767	765	. . .	. . .	2	1	1	. . .	. . .	766	766
1938	375	360	. . .	. . .	15	10	10	. . .	. . .	366	1,132
1939	607	580	. . .	. . .	27	14	14	. . .	. . .	592	1,724
1940	368	325	. . .	. . .	43	62	35	26	. . .	306	2,031
1941	845	789	. . .	. . .	56	114	88	26	. . .	731	2,762
1942	1,085	1,012	. . .	. . .	72	159	131	28	. . .	926	3,688
1943	1,328	1,239	. . .	. . .	88	195	166	29	. . .	1,132	4,820
1944	1,422	1,316	. . .	. . .	107	238	209	29	. . .	1,184	6,005
1945	1,420	1,285	. . .	. . .	134	304	274	30	. . .	1,116	7,121
1946	1,447	1,295	. . .	. . .	152	418	378	40	. . .	1,029	8,150
1947	1,722	1,557	. . .	1	164	512	466	46	. . .	1,210	9,360
1958	1,969	1,685	. . .	3	281	607	556	51	. . .	1,362	10,722
1949	1,816	1,666	. . .	4	146	721	667	54	. . .	1,094	11,816
1950	2,928	2,667	. . .	4	257	1,022	961	61	. . .	1,905	13,721
1951	3,784	3,363	. . .	4	417	1,966	1,885	81	. . .	1,818	15,540
1952	4,184	3,819	. . .	. . .	365	2,282	2,194	88	. . .	1,902	17,442
1953	4,359	3,945	. . .	. . .	414	3,094	3,006	88	. . .	1,265	18,707
1954	5,610	5,163	. . .	. . .	447	3,741	3,670	92	-21	1,869	20,576
1955	6,167	5,713	. . .	. . .	454	5,079	4,968	119	-7	1,087	21,663
1956	6,697	6,172	. . .	. . .	526	5,841	5,715	132	-5	856	22,519
1957	7,381	6,825	. . .	. . .	556	7,507	7,347	162	-2	-126	22,393
1958	8,117	7,566	. . .	. . .	552	8,646	8,327	194	124	-528	21,864
1959	8,584	8,052	. . .	. . .	532	10,308	9,842	184	282	-1,724	20,141
1960	11,382	10,866	. . .	. . .	516	11,198	10,677	203	318	184	20,324
1961	11,833	11,285	. . .	. . .	548	12,432	11,862	239	332	-599	19,725
1962	12,585	12,059	. . .	. . .	526	13,973	13,356	256	361	-1,388	18,337
1963	15,063	14,541	. . .	. . .	521	14,920	14,217	281	423	143	18,480
1964	16,258	15,689	. . .	. . .	569	15,613	14,914	296	403	645	19,125
1965	16,610	16,017	. . .	. . .	593	17,501	16,737	328	436	-890	18,235
1966	21,302	20,580	. . .	78	644	18,967	18,267	256	444	2,335	20,570
1967	24,034	23,138	. . .	78	818	20,382	19,468	406	508	3,652	24,222
1968	25,040	23,719	. . .	382	939	23,557	22,643	476	438	1,483	25,704
1969	29,554	27,947	. . .	442	1,165	25,176	24,210	474	491	4,378	30,082
1970	32,220	30,256	. . .	449	1,515	29,848	28,798	471	579	2,371	32,454
1971	35,877	33,723	. . .	488	1,667	34,542	33,414	514	613	1,335	33,789
1972	40,050	37,781	. . .	475	1,794	38,522	37,124	674	724	1,528	35,318
1973	48,344	45,975	. . .	442	1,928	47,175	45,745	647	783	1,169	36,487
1974	54,688	52,081	. . .	447	2,159	53,397	51,623	865	909	1,291	37,777
1975	59,605	56,816	. . .	425	2,364	60,395	58,517	896	982	-790	36,987
1976	66,276	63,362	. . .	614	2,301	67,876	65,705	959	1,212	-1,600	35,388
1976	66,276	63,362	. . .	614	2,301	67,876	65,705	959	1,212	-1,600	35,388
1976	66,276	63,362	. . .	614	2,301	67,876	65,705	959	1,212	-1,600	35,388
1977	72,412	69,572	. . .	613	2,227	75,309	73,121	981	1,208	-2,897	32,491
1978	78,094	75,471	. . .	615	2,008	83,064	80,361	1,115	1,589	-4,971	27,520
1979	90,274	87,919	. . .	557	1,797	93,133	90,573	1,113	1,448	-2,860	24,660
1980	105,841	103,456	. . .	540	1,845	107,678	105,083	1,154	1,442	-1,837	22,823
1981	125,361	122,627	. . .	675	2,060	126,695	123,803	1,307	1,585	-1,334	21,490

(continued)

TABLE 1. Annual Statistical Supplement to the Social Security Bulletin, 2015 *(continued)*

Year	Receipts [a]					Expenditures				Assets	
	Total	Net payroll tax contri-butions [b]	Income from taxation of benefits	Reimburse-ments from the general fund of the Treasury [c]	Net interest [d]	Total	Benefit payments [e]	Adminis-trative expenses	Transfers to Railroad Retirement program	Net increase during year	Amount at end of year
1982	125,198	123,673	. . .	680	845	142,119	138,806	1,519	1,793	598[f]	22,088
1983	150,584	138,337	. . .	5,541	6,706	152,999	149,221	1,528	2,251	-2,416	19,672
1984	169,328	159,515	2,835	4,712	2,266	161,883	157,841	1,638	2,404	7,445	27,117
1985	184,239	175,128	3,208	4,032	1,871	171,150	167,248	1,592	2,310	8,725[f]	35,842
1986	197,393	189,136	3,424	1,764	3,069	181,000	176,813	1,601	2,585	3,239[f]	39,081
1987	210,736	201,092	3,257	1,697	4,690	187,668	183,587	1,524	2,557	23,068	62,149
1988	240,770	227,683	3,384	2,134	7,568	200,020	195,454	1,776	2,790	40,750	102,899
1989	264,653	248,128	2,439	2,101	11,985	212,489	207,971	1,673	2,845	52,164	155,063
1990	286,653	266,110	4,848	-668	16,363	227,519	222,987	1,563	2,969	59,134	214,197
1991	299,286	272,477	5,864	115	20,829	245,634	240,467	1,792	3,375	53,652	267,849
1992	311,162	281,132	5,852	-126	24,303	259,861	254,883	1,830	3,148	51,301	319,150
1993	323,277	290,865	5,335	50	27,027	273,104	267,755	1,996	3,353	50,173	369,322
1994	328,271	293,316	4,995	13	29,946	284,133	279,068	1,645	3,420	44,138	413,460
1995	342,801	304,659	5,490	-168	32,820	297,760	291,630	2,077	4,052	45,041	458,502
1996	363,741	321,555	6,471	9	35,706	308,217	302,861	1,802	3,554	55,524	514,026
1997	397,169	349,945	7,426	3	39,795	322,073	316,257	2,128	3,688	75,096	589,121
1998	424,848	371,206	9,149	2	44,491	332,324	326,762	1,899	3,662	92,524	681,645
1999	457,040	396,352	10,899	1	49,789	339,874	334,383	1,809	3,681	117,167	798,812
2000	490,513	421,390	11,594	1	57,529	358,339	352,652	2,149	3,538	132,174	930,986
2001	518,100	441,458	11,903	1	64,737	377,546	372,312	1,961	3,273	140,554	1,071,540
2002	539,706	455,198	12,909	415	71,184	393,749	388,119	2,137	3,493	145,957	1,217,497
2003	543,811	456,077	12,497	[g]	75,237	405,978	399,845	2,553	3,580	137,833	1,355,330
2004	566,338	472,758	14,593	1	78,986	421,047	415,034	2,384	3,628	145,292	1,500,622
2005	604,335	506,862	13,843	-350	83,979	441,920	435,383	2,957	3,579	162,415	1,663,037
2006	642,231	534,786	15,628	[g]	91,817	460,965	454,496	3,010	3,458	181,266	1,844,304
2007	675,035	560,877	17,192	[g]	96,966	495,723	489,074	3,075	3,575	179,312	2,023,616
2008	695,462	574,555	15,566	[g]	105,340	516,192	509,337	3,223	3,632	179,270	2,202,886
2009	698,208	570,392	19,930	[g]	107,886	564,295	557,166	3,439	3,690	133,912	2,336,798
2010	677,111	544,773	22,090	2,042	108,206	584,866	577,393	3,543	3,930	92,245	2,429,043
2011	698,781	482,350	22,211	87,753	106,468	603,750	596,155	3,486	4,110	95,031	2,524,075
2012	731,075	503,893	26,675	97,735	102,773	645,482	637,894	3,448	4,139	85,593	2,609,668
2013	743,793	620,814	20,694	4,169	98,114	679,475	672,129	3,397	3,948	64,317	2,673,985
2014	769,417	646,232	27,957	395	94,833	714,170	706,780	3,133	4,257	55,247	2,729,233

a. The definitions of the categories "net payroll tax contributions" and "reimbursements from the general fund of the Treasury" were revised in 2011. Data in these two columns for 1984 and later may vary from those in prior editions, but total receipts are unchanged.

b. Beginning in 1983, includes transfers from the general fund of the Treasury representing contributions that would have been paid on deemed wage credits for military service in 1957–2001, if such credits were considered to be covered wages.

c. Includes payments (1) in 1947–1951 and in 1966 and later, for costs of noncontributory wage credits for military service performed before 1957; (2) in 1971–1982, for costs of deemed wage credits for military service performed after 1956; (3) in 1968 and later, for costs of benefits to certain uninsured persons who attained age 72 before 1968; (4) in 1984 for employees, and in 1984–1989 for self-employed persons, for payroll tax credits provided under Public Law 98-21; and (5) in 2010–2012, for payroll tax revenue forgone under the provisions of Public Laws 111-147, 111-312, 112-78, and 112-96.

d. Includes net profits or losses on marketable securities; interest adjustments on amounts reimbursed from, or paid to, other trust funds or the general fund of the Treasury; and relatively small amounts of gifts to the fund.

e. Beginning in 1966, includes payments for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities. Beginning in 1983, amounts are reduced by amount of reimbursement for unnegotiated benefit checks.

f. The fund borrowed from the Disability Insurance and Hospital Insurance Trust Funds in 1982, and repaid the borrowed amounts in 1985 and 1986. Amounts for these years are equal to total receipts less total expenditures, plus amounts borrowed or less amounts repaid.

g. Between -$500,000 and $500,000.

. . . = not applicable.

Source: Department of the Treasury. https://www.ssa.gov/policy/docs/statcomps/supplement/2015/index.html.

TABLE 2. Social Security and Medicare: The Impeding Fiscal Challenge

Year	Change to Social Security
1939	Add benefits for spouses and minor children of a retired worker
	Add benefits for family survivors of a covered worker in the event of premature death
1950	Increase old-age benefits by 77 percent
	Expand number of covered workers
1954	Create Disability Insurance (DI) part of Social Security by including disability insurance for disabled workers age 50–64 and disabled children, beginning in 1956
1960	Expand disability insurance to disabled workers of any age and dependents of disabled workers
1961	Lower age at which men were first eligible to receive retirement benefits with benefit reductions if taken at an early age (occurred for women in 1956)
1972	Adjust benefits for inflation by introducing cost of living adjustments
	Index wages when calculating Social Security benefits
1977	Decouple indexation of initial benefits from indexation of later benefits for inflation
	Increase tax rate
	Increase wage base
1983	Changes resulting from Greenspan Commission
	Raise retirement age (from 65 to 67), starting in 2000
	Accelerate date of increases in tax rate
	Make some benefits subject to taxation
	Include new federal employees in the Social Security system
	Temporarily increase Trust Fund reserves by borrowing from HI Trust Fund
	Delay cost-of-living adjustment by six months
1987	Change eligibility rules and requirements for disability coverage
1993	Increase extent to which benefits are subject to taxation
2000	Eliminate retirement earnings test (which limited benefit disbursements to elderly individuals still working) for individuals who have attained normal retirement age

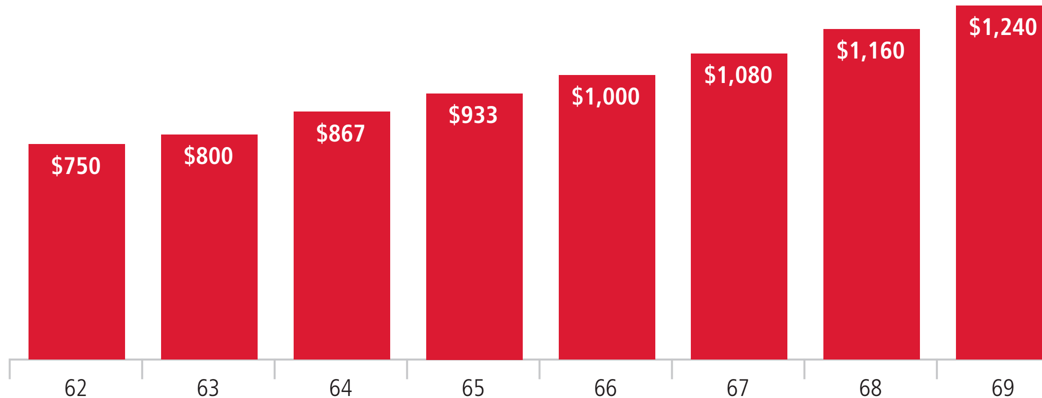
Source: Hakkio, Craig S., and Elisha J. Wiseman. 2006. "Social Security and Medicare: The Impending Fiscal Challenge." *Economic Review* (Federal Reserve Bank of Kansas City) (First Quarter): 7–41. https://www.kansascityfed.org/PUBLICAT/ECONREV/PDF/1q06hakk.pdf.

The message is the same across Webster (2010), Hansen (2008), Hakkio and Wiseman (2006), and Social Security and Medicare Boards of Trustees (2018) that there are ways to correct the projected shortfall, which should be addressed sooner rather than later.

Another drastic change to Social Security was implemented in April 2016, affecting married couples. Married couples will need to collect on their own earnings record or their spouses earning record and are no longer able to flip back and forth on the earnings record to maximize benefits (Horan and Horan, 2016).

The Social Security program provides benefits based on amount the claimants have paid in over their working lifetime and the age at which payments are initiated. The Social Security program is designed to provide the full benefit at full retirement age (FRA), determined by date of birth, which is 66 for most. Beneficiaries can elect to receive benefits as early as 62, at which time the benefits will be reduced to 75 percent. Beneficiaries can also elect to defer receiving benefits up to the age of 70, at which time the benefits will increase to 132 percent of the amount at FRA. If recipients wait to collect Social Security until age 66, they

FIGURE 1. Monthly Social Security Benefit Based on Age, Assuming a Primary Insurance Amount of $1,000



Source: Reprinted with permission from Maxfield, John. 2014. "Social Security: What Percent of Americans Claim Benefits at Age 62?" *The Motley Fool* June 17, 2014. https://www.fool.com/retirement/general/2014/06/07/social-security-what-percent-of-americans-claim-be.aspx.

will receive 33 percent more in benefits than they would have received at age 62. That percentage jumps up to 76 percent if held off until age 70. Figure 1 presents how much $1,000 benefit at FRA is at different ages of initial filing.

While the early claimant collects, those waiting for FRA do not for this gap period. The question is: Is the amount forgone less than or greater than the increased benefits over the lifetime of collections? There is an attractive bonus to those with long life expectancy. What then is the best strategy? That depends quite a bit on the economic ability to hold out for the greater benefit and the estimated life expectancy. These dollar amounts can be tailored for any specific amount given for FRA age, using these percentage amounts. This example disregards the cost of living adjustments (COLA), which are customarily announced each year and are applied across the board.

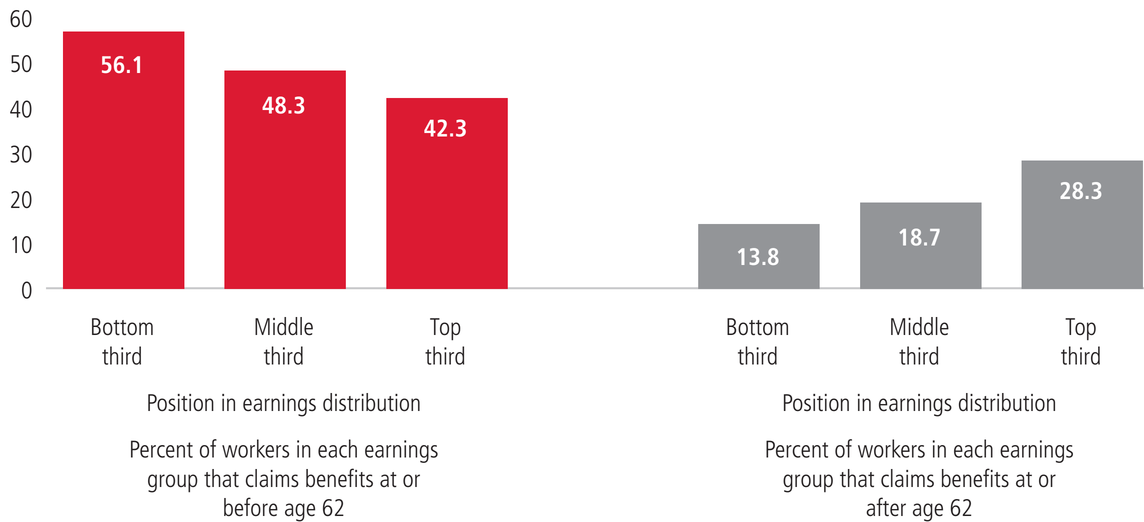
LITERATURE REVIEW

The Brookings Institute commissioned an extensive study entitled *Late Retirement*, *Inequality in Old Age, and the Growing Gap in Longevity Between Rich and Poor*, authored by Bosworth and Burtless from the Brooking Institute and Zhang (2015) from George Washington University. They note that many workers remain in the workforce longer for three reasons. One is because the Social Security earnings test remains in place for beneficiaries below the full retirement age. For beneficiaries between 62 and the full retirement age, annual benefits are reduced $1 for every $2 of earnings above the exempt amount of $17,040 for 2018. Another reason is that employers are shifting from defined benefit to defined contribution plans. Workers delay retirement because defined contribution plans grow every year that contributions are made. Third, there is a lack of health insurance options for people who retire below the full retirement age.

Those who retire early are overly represented by those with lower income. Figure 2 shows that those in the bottom third of income have the highest percent of early retirees, with 56 percent retiring before FRA, while those in the top

FIGURE 2. Americans Making Lower Wages Retire Earlier and Receive Less from Social Security

For retirees with a full-retirement age of 66, delaying the age of benefit claiming from age 62 to age 70 increases their basic monthly benefit by at least 76 percent.



Source: Reprinted with permission from The Brookings Institution. https://www.brookings.edu/research/what-growing-life-expectancy-gaps-mean-for-the-promise-of-social-security/.

third of income have the lowest percent of early retirees, 42 percent. Those in the higher income bracket have financial options that allow them to defer, and then reap the benefits of a higher payout.

Dushi, Iams, and Trenkamp (2017) reviewed three independent surveys of income by source which all confirmed earlier research that Social Security benefits provide the majority of retirement income to persons 65 and older. Estimates from these surveys indicate that about half the aged population live in households receiving at least 50 percent of their family income from Social Security, and about one quarter live in households receiving at least 90 percent of their family income from Social Security.

Also, Alderson and Betker (2017) note that as the gap has gradually widened between life expectancy and the Social Security FRA, the benefit has evolved from being strictly old age insurance—payments over a few remaining years of life—to a unique, long-duration asset in the retirement portfolio.

Schobel (2017) noted that FRA was increased in the 1983 amendments to the Social Security Act rising to 67 for beneficiaries born in 1960 or later. While this could be raised again, the problem is that higher-income people have been gaining the most in life expectancy, while lower-income people have been gaining very little. This is again reinforced by Chetty, et al. (2016) who published a piece which measured the variability in the association between income and life expectancy. Their conclusion was that higher income was associated with greater longevity throughout income distribution, that the gap in life expectancy between the richest 1 percent and the poorest 1 percent of individuals was 14.6 years for men and 10.1 years for women.

Waldron (2013) notes that mortality differs based on the factors of earnings level and education. The study concludes an inverse relationship of earnings and mortality risks, that the higher the earnings, the longer the life.

Specter (2016) stated that the formula for calculating monthly Social Security benefits is supposed to be progressive. Payments are meant to provide a proportionally larger monthly income for lower earners than for higher earners. Specter (2016) qualified this by remarking that when viewed in terms of the benefits received over a lifetime, the disparities in life expectancy nullify the progressive effect of the program. In other words, a growing share of Social Security benefits will go to people with higher incomes.

We have seen that the lower incomed are overly represented in the early claimant group. So what is the trend as it relates to African Americans and other minorities? Green's (2005) study takes this discussion to the next level. Green (2005) presents a table that clearly shows the labor force participation rate by age, gender, and ethnicity. While this does not reveal data for the 62+ age group, it includes the 66+ age group, and we can see a pattern worth discussing. The inference is that if they are not in the labor force at 66, then they dropped out before this age and are part of the earlier claimants. Thus the lower the labor force participation rate by age, the higher the complementary percent of benefit claimants. Table 3 reflects major differences by race/ethnicity. While total participation rates are similar for white and black women by age categories, there is a big difference when compared to Hispanic women. When focusing on the total for those between 66 and 90+, only 3.3 percent are Hispanic compared to 6.9 and 6.8 percent for white and black women, respectively. Comparatively, there are fewer working Hispanic women in the labor force than average for those over 66.

As for men, a similar pattern is found. However, the difference between the white and black men is more pronounced. When focusing on the total for those between ages 66 and 90+, 13.5 percent for white men, and 10.1 percent for black men, while a much lower 5.3 percent are Hispanic. More men are in the labor force than their female counterparts, more are white than black, and few are Hispanic. Green (2005) states, "Although elderly blacks and Hispanics have

TABLE 3. Labor Force Participation Rates, 1993–1994

	Women				Men			
Age Group	Whites	Blacks	Hispanics	Total	Whites	Blacks	Hispanics	Total
66–69*	15.2	14.3	6.1	14.4	31.1	22.2	16.7	29.2
70–74	11.5	12.0	5.3	11.2	19.2	15.5	8.8	18.2
75–79	5.1	4.7	1.5	4.8	12.2	7.5	5.3	11.3
80–84	2.1	2.9	2.0	2.2	7.2	7.7	0.0	6.9
85–89	0.5	1.4	0.0	0.7	2.8	0.0	0.0	2.3
90+	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.3
Totals	6.9	6.8	3.3	6.7	13.5	10.1	5.3	12.6
N	3,919	706	274	4,899	2,415	366	171	2,952

Note: This table includes information about those for whom labor force status was available. The column labeled "Whites" contains information about white non-Hispanics. The column labeled "Hispanics" shows information only for white Hispanics. Black Hispanics are included with non-Hispanic blacks.

* Any respondents in this age group were included only because they had spouses aged 70 and over. Thus, there are relatively few individuals in this age category and an even smaller percentage of men, since men tend to have younger spouses.

Source: Reprinted with permission from Green, Carole E. 2005. "Race, Ethnicity, and Social Security Retirement Age in the US." *Feminist Economics* 11, no. 2 (February): 117–43. Copyright © Taylor & Francis.

greater financial need than whites, they have significantly less ability to continue working for pay. Thus, seemingly race- and ethnicity-neutral policies such as increasing the full Social Security retirement age may have disproportionate negative effects on elderly members of minority groups in the US."

Harrington, Wolf, and Himes (2005) show that the decline in marital rates will hurt women when it comes to collecting benefits, especially for the low incomed. "Two thirds of older women in the US receive spouse or widow Social Security benefits." Spouse or widow benefits allow the wife/husband to claim not on their earning record but their spouse's at one half of the spouse's benefits, while the spouse is still alive if they do not have sufficient earnings themselves. Fewer married will result in fewer being eligible for these benefits. The contra to this comes from Harmelink and Speyrer (1994), who see it the opposite way, stating that "rates of return for one-earner couples are up to 40 percent higher than for two-earner couples" (51). Both state the same from different vantage points.

According to the literature review, those who are the lower incomed, less educated, physically challenged from their work, who are also overly represented by women and/or ethnic groups, are more likely to claim benefits at an earlier age. In this case, since they have fewer income options the utility or the usefulness of their dollars has more strength than the utility of the dollars of the higher earning group. The earlier claimants also receive less benefits since their tax paid in is lower, since their wages are lower.

RESEARCH QUESTIONS

Therefore, the research questions generated are: How equitable are benefits based solely on what was paid in, when filing early? Bad enough that early filers will receive lower benefits, but is the system paying benefits justly to what was paid in, and how does this compare to the payout for those waiting until FRA?

- Question 1: What will be the total lifetime amount of benefits paid to the retirees aged 62 to 64 who claimed benefits in 2014?
- Question 2: What will be the total amount of benefits paid to this same group if they delayed claiming benefits until the FRA of 66?
- Question 3: What is the difference in these dollar amounts and how material is that?

The Social Security beneficiaries who elected to claim early in 2014 for the first time, taken as a collected group, will collect less over their expected lifetime than if deferral was made until FRA.

DATA AND METHODOLOGY

The authors selected one year of the first-time early filers, those from 2014, whose age of entitlement spans 62 to 64. The data used was taken from *The Annual Statistical, Supplement of the Social Security Bulletin 2015,* replicated in Table 4. The table reports that in 2014, 2,771,933 were collecting Social Security. Based on when they initiated claims, 1,380,803 were early retirees in the 62 to 64 age bracket, 1,317,140 initiated claims at 65 to 69, and a smaller group of 73,990 initiated claims at 70 or older.

TABLE 4. Number and Average Monthly Benefit, by Type of Benefit, Sex, Age, and Basis of Entitlement, 2014

Age and basis of entitlement	Total		Male		Female	
	Number	Average monthly benefit	Number	Average monthly benefit	Number	Average monthly benefit
Total	2,771,933	$1,363.30	1,432,653	$1,542.82	1,339,280	$1,171.26
62 to 64	1,380,803	$1,104.34	667,382	$1248.14	713,421	$969.82
65 to 69	1,317,140	$1,601.17	735,784	$1,782.67	581,356	$1,371.44
70 or older	73,990	$1,961.60	29,487	$2,227.18	44,503	$1,785.63

Source: *Annual Statistical Supplement to the Social Security Bulletin 2015,* https://www.ssa.gov/policy/docs/statcomps/supplement/2015/index.html.

Question 1: What will be the total lifetime amount of benefits paid to the retirees aged 62 to 64 who claimed benefits in 2014?

Calculation: From Table 4, the number of given claimants, broken down between males and females, in the age range of 62 to 64, multiplied by the given monthly benefits, multiplied by twelve months, multiplied by the life expectancy given in Table 5 at 63. This was the age used since it is the average of the 62 to 64 age range. Adding the calculated amounts for males and females determined that the expected lifetime benefits for this group would be $373 billion. See Table 6 for the calculation.

Question 2: What will be the total amount of benefits paid to this same group if they delayed claiming benefits until the FRA of 66?

Calculation: From Table 4, the number of given claimants, broken down between males and females, in the age range of 62 to 64, reduced to the number of this group that would have survived to age 66, by subtracting out each year for 63, 64, and 65 using the death probability for males and females taken from Table 5. The given estimated monthly benefit payout at 63 would be 80 percent of normal benefit. Thus, the given average monthly payment at 63 was increased 125 percent to determine the average monthly payment at 66. This amount multiplied by twelve months, multiplied by the given life expectancy at 66 (Table 5). Adding the calculated amounts for males and females determined the expected lifetime benefits for this group would be $398 billion. See Table 7 for the calculation.

Question 3, the focus of this study: What is the difference in these dollar amounts and how material is that?

The rounded numbers, $399 billion minus $373 billion is $26 billion. If this difference applied to the approximate 20 years of Social Security claimants that are in the system for a given year, then this works out to be approximately $520 billion. This study did not consider the time value of money, nor does it consider the amount of repayments from the group aged 62 to 64 who may have exceeded the income threshold, nor does it consider the amount of income tax that would be levied on the higher payout amounts.

TABLE 5. Period Life Table, 2011 (Insured Workers)

	Male			Female		
Exact age	Death probability	Number of lives	Life expectancy	Death probability	Number of lives	Life expectancy
61	.011591	85,060	20.67	.007001	90,923	23.52
62	.012403	84,075	19.90	.007602	90,287	22.68
63	.013325	83,032	19.15	.008294	89,600	21.85
64	.014370	81,925	18.40	.009082	88,857	21.03
65	.015553	80,748	17.66	.009990	88,050	20.22
66	.016878	79,492	16.93	.011005	87,171	19.42
67	.018348	78,151	16.21	.012097	86,211	18.63
68	.019969	76,717	15.51	.013261	85,168	17.85
69	.021766	75,185	14.81	.014529	84,039	17.09
70	.023840	73,548	14.13	.015991	82,818	16.33
71	.026162	71,795	13.47	.017662	81,494	15.59
72	.028625	69,917	12.81	.019486	80,054	14.86
73	.031204	67,915	12.18	.021467	78,494	14.14
74	.033997	65,796	11.55	.023658	76,809	13.44
75	.037200	63,559	10.94	.026223	74,992	12.76
76	.040898	61,195	10.34	.029159	73,026	12.09
77	.045040	58,692	9.76	.032331	70,896	11.44
78	.049664	56,048	9.20	.035725	68,604	10.80
79	.054844	53,265	8.66	.039469	66,153	10.18
80	.060801	50,344	8.13	.043828	63,542	9.58
81	.067509	47,283	7.62	.048896	60,757	9.00
82	.074779	44,091	7.14	.054577	57,786	8.43
83	.082589	40,794	6.68	.060909	54,633	7.89
84	.091135	37,424	6.23	.068019	51,305	7.37
85	.100680	34,014	5.81	.076054	47,815	6.87

Source: *Annual Statistical Supplement to the Social Security Bulletin 2015,* https://www.ssa.gov/policy/docs/statcomps/supplement/2015/index.html.

TABLE 6. Lifetime Benefits for those Aged 62 to 64 in 2014

Age 62 to 64	Men	Women	Total	Source
Number of Beneficiaries	667,382	713,421		Table 4
Monthly Benefits	$1,248.14	$969.82		Table 4
Annualized	12	12		
Life Expectancy at Age 63	19.15	21.85		Table 5
Expected Lifetime Benefit	$191,420,221,747	$181,413,545.996	$372,833,767,763	

TABLE 7. Calculation of Lifetime Benefits for Those Aged 62 to 64 in 2014 Who Wait for FRA of 66

Age 66	Men	Women	Total
Calculated Number of Surviving 62 to 64 Beneficiaries at Age 66	638,932	694,074	
Calculated Monthly Benefits at 125% of 62 to 64 Benefits	$1,560	$1,213	
Annualized	12	12	
Life Expectancy at Age 66	16.93	19.42	
Expected Lifetime Benefit	$202,496,463,187	$196,199,117,016	$398,695,580,204

RESULTS AND CONCLUSION

These calculations reflect that the Social Security Administration has been saving $26 billion over the lifetime of one year of claimants aged 62 to 64 because they have elected to claim early and forgo the full benefits they would have received had they waited until age 66 to claim. Further, if this is extrapolated to include the 20+ years of early claimants who are still in the system, this would approach $520 billion. There is enough evidence from the literature review to conclude that the earlier claimant is predominately less educated, lower incomed, and overly represented by minority populations, along with women and the unmarried. It is bad enough that the benefits are a function of paid-in wages, which for this group is the lowest, but what is unacceptable is that the payout is not right. It is a short-changed amount. Think of it as being analogous to the calculation of the market value of bonds. If the bond sells at par, the coupon rate equals the market rate, however if the coupon rate differs, the value of the bond is adjusted so that the yield is the same. Here also, the payment period and amount differ, however the yield should be the same, keeping all things equal.

To fix this for the 2014 group in the study, increase their average monthly benefit by $86.58 for men and $67.27 for women. This is a 6.9 percent increase in both average monthly payments. This was calculated by rolling back the $26 billion on a weighted average basis. It is obvious that Social Security needs a major overhaul to save the Trust Fund from depletion, however these changes should be made holistically, so that the amount paid in should be fair regardless of when the pay out is initiated. It should not unfairly discriminate against the most vulnerable.

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Access-Based Consumption: Its Technological Determinants and Business Implications (Evidence from Poland)

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Abstract

Among many modern trends reflecting shifts in the way consumers satisfy their needs is the rising popularity of consumption modes based on renting, lending, leasing, and/or sharing. It is referred to as *access-based consumption*. Once treated as inferior, today this option is not only socially accepted but even trendy, and, most importantly, much easier than before due to the technological support of special devices and applications.

This paper characterizes an idea of access-based consumption and describes how information and communication technologies determine consumers' willingness and possibilities to use this mode of consumption. An empirical part is aimed at verifying and characterizing the relationship between consumers' activity in using technology and their use of renting and borrowing as alternative consumption modes. Primary data come from an online survey conducted in the first two quarters of 2016, employing a nationwide quota sampling with a total sample of 1112 adult Poles. Analyses confirm that consumers using information and communication technologies to a greater extent (as measured by the frequency of use) employ access-based solutions more often. However, certain technology uses are more strongly related to an intensive engagement in access-based consumption. And finally, certain business implications of this trend development are presented, as well as limitations of the study and future research areas.

INTRODUCTION

Stating that the development of information and communication technologies (ICT) changes the world sounds like a truism in face of the obvious manifestations of these changes in almost all areas of human life. Taking into account the economic perspective, one will easily identify various examples of how the Internet and other technological advances reshape behavior of all market entities,

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including producers, sellers, and consumers. With regard to the last group, we can observe a critical shift in the way people satisfy their needs and in fact realize the whole consumption process.

In this the paper, we aim to present how information and communication technologies are shaping consumers' use of so-called access-based consumption (AbC). AbC, also referred to as non-ownership consumption, represents a consumption mode involving transactions where no transfer of ownership takes place (Bardhi and Eckhardt 2012); instead a right to use a good is acquired via renting, lending, leasing, and/or sharing.

Thanks to the evolution of (and also via) the Internet, consumers are offered more alternatives than ever before. The proliferation of social media and mobile devices induces significant change with both options that individuals have and the choices they make, including the way they make them. These traditional, though increasingly complex, choices refer to, for example, sources of information used in the search for products, brands, and places to shop. But there are also new options, regarding, for example, how and for how long an individual acquires a good. Furthermore, the technological revolution enabled the creation of virtual communities supporting consumers in their search and purchasing decisions. Consumers are no longer "alone" on the big market. Instead, they often make their decisions with friends, communities, or even along with whole networks of people connected by virtual, but still very strong, ties. Almost everything can be found, solved, or organized by an individual or a community having access to some modern technologies and persistent enough to do so. This represents an important redistribution of power, moving away from institutions (governments, firms) toward consumers and their communities of influence (Keys and Malnight 2013).

Indeed, evolution of the technology and peer communities has led to redefinition of such categories as sharing, collaboration and common resources, and stimulated the rise of concepts described as the sharing economy, access economy, and collaborative consumption, evolving rapidly after the last recession (Bainbridge 2013; Botsman and Rogers 2010; Denning 2014a; Fraiberger and Sundararajan 2015; Geron 2013). Access-based consumption is becoming increasingly popular, trendy, and, most importantly, very easy due to the technological support of special platforms and apps enabling convenient and quick transactions of various kinds.

It seems that there is an increasing group of customers, especially among the young, who prefer obtaining an access to a desired product over buying it. A huge advantage of this solution is that customers must cover only the cost of product use (paying for the experience and benefits resulting from this use) instead of paying for its possession. Another favorable aspect of access-based consumption is that it allows customers to avoid several burdens ownership may represent.

Access-based consumption is a new research area of growing importance, as borrowing and renting become increasingly popular alternatives to the traditional consumption based on ownership transfer. Hence, both academics and managers are showing enhanced interest in these processes and their consequences for the consumers and businesses.

We argue that the degree to which consumers are familiar with information and communication technologies and use it in different ways may determine

their readiness and actual decisions to adopt access-based solutions in the process of acquiring goods and services. Hence, the goal of the empirical part is to verify and characterize the relationship between consumers' activity in using information and communication technologies and the frequency of using renting and borrowing as the alternative consumption modes. Furthermore, we want to show critical business implications of the above changes as they represent a true challenge that many companies must face if they want to stay in the game.

This paper is the first empirical study we know of to explore the relationship between the use of modern information technologies and alternative forms of consumption based on non-ownership, hence our possibilities to refer to other studies while planning the research were limited. As a result, this study is more of an exploratory kind and has serious limitations.

LITERATURE REVIEW

A Concept of, and Motivations behind, Access-Based Consumption

Bardhi and Eckhardt (2012) define access-based consumption as transactions that may be market mediated in which no transfer of ownership takes place. This description is broad enough to include not only formal, paid transactions (e.g., between a rental company and a consumer renting a car), but also cases of peer-to-peer borrowing/lending and sharing. We share this viewpoint, as we believe that to properly understand the core idea of access-based consumption one should consider all the alternative modes of consumption that allow for need satisfaction without the necessity of buying a product.

In fact, consumption based on access rather than ownership is perceived as a specific type of the widely recognized phenomenon called *collaborative consumption*. AbC is identified with the product service system (Botsman and Rogers 2010) and is frequently mentioned in connection with the highly popular concept of the sharing economy (Denning 2014a; Olmstead and Smith 2016). However, Eckhardt and Bardhi (2015) as well as Danco (2015) interestingly point out the essential differences between the sharing and access economies.

We share this point of view, hence we interpret the economy of access as a business model in which access to goods and services becomes more frequent and needed than their ownership (Denning 2014b). We understand access-based consumption as satisfying needs with the use of goods where ownership is not transferred between an owner and user because the latter is more interested in access to functions and utility of products than in their possession. Therefore, non-ownership consumption includes all situations of consuming (using) goods that are not owned by the consumers themselves but have been rented, leased, or borrowed from their actual owners. Thus, non-ownership consumption examples include renting a boat from a rental company as well as borrowing a boat from a friend.

Simply stated, in the access economy, people are buying certain utility/benefits instead of buying a product ensuring/offering this utility. In market-mediated cases of access-based consumption (paid transactions), a consumer is willing to pay a price premium (in the form of rental/access-based payments) for the use of a selected object (Durgee and O'Connor, 1995). This is especially important in cases where consumers could not otherwise afford to buy the selected object.

However, consumers nowadays choose the non-ownership mode for reasons other than economic constraints. The significant motivations behind resigning ownership include, first of all, concerns about the additional cost and responsibilities connected with possessing a good. For example, ownership often necessitates storing, repairing, disposal, costs of maintenance and insurance, as well as the consequences of product aging and replacement (Bardhi and Eckhardt 2012; Lawson 2011; Moeller and Wittkowski 2010).

There is also motivation of a totally different kind: today consumers attach increasing importance to new experiences and emotions, to constant change, diversity, and surprise. They perceive consumption in terms of its ability to provide the desired exceptional and original experiences, as well as its ability to offer certain solutions to their current problems (Howard and Mason 2001; Keys and Malnight 2013). Access-based consumption ensures freedom to try out various products, sometimes very exotic ones like the fastest sports cars. This, in turn, makes market decisions easier and faster (Barbu et al. 2018; Lawson 2011; Lawson et al. 2016; Moeller and Wittkowski 2010). But modern societies are characterized by a growing need for mobility also in its strictly physical meaning. This is caused by much more frequent changes of jobs, moving from one place of living to another, even on an international scale (Garcia 2013; Marcellin 2014). Consumers, particularly the ones who are especially mobile, try to limit the number of items they possess to make a potential relocation faster and easier.

Apart from the inconvenience, space requirements, and high additional costs associated with possessing things, another motivating factor stimulating some consumers to engage in non-ownership consumption is a concern for the environment. By choosing to satisfy their needs in the access mode, these individuals wish to contribute to production (and hence pollution) reduction—eventually the less people buy, the less must be produced. Still, compared to other incentives, the ecological factor has little, or at most moderate, impact on the non-ownership trend development (Burgiel and Zralek 2015; Evans 2011).

The growing popularity of access-based consumption is also triggered by the shift in consumer attitudes toward property and possessing things on the one hand, and toward renting on the other (Belk 2007). As long ago as the 1970s, some researchers noticed the economic and sociological changes leading to a decrease in the value of ownership and bringing an increased consumer interest in renting and leasing as alternative consumption options (Berry and Maricle, 1973; Obenberger and Brown, 1976). Later Durgee and O'Connor (1995) continued this stream of reflection, confirming the tremendous rise in the trend toward renting, resulting from, among other reasons, the changed perception of this solution. Historically, access through renting or borrowing was considered an inferior consumption mode compared to ownership. However, at the beginning of the twenty-first century, public opinion shifted as people noted that renting/borrowing secures flexibility and adaptability, which are more suitable to the lifestyle of the contemporary liquid society as well as for coping with its challenges (Bardhi, Eckhardt, and Arnould 2012; Belk 2014; Marcellin 2014; Watkins, Denegri-Knott, and Molesworth 2016).

To sum up, we refer to Danco's (2015) interesting conclusion that the access economy emerges when access to a certain good becomes cheap, satisfacto-

ry, convenient, and reliable enough that the premium on the ownership of this good disappears.

Technological Determinants of Access-Based Consumption Development

Besides the aforementioned factors, probably the strongest stimulants of the access-based consumption spread are rapid advances in information technology and Internet connectivity. They are said to be the main enablers of the whole sharing economy (Denning 2014a; *The Economist* 2013) as they have created a specific technological infrastructure allowing for convenient and easy execution of various access-mode activities. This infrastructure on the one hand allows efficient peer-to-peer contact, and on the other hand enables companies to prepare and offer modern renting solutions.

These technological developments have reduced transaction costs, making both commercial renting, as well as peer-to-peer lending and sharing, cheaper and faster (Fraiberger and Sundararajan 2015). Collaborative use of resources has been facilitated by the widespread availability of the Internet, and particularly Web 2.0 (Belk 2014). The increasing popularity of mobile apps allows faster information exchange between transaction partners (Möhlmann 2015). These changes activated consumers and motivated them to engage in peer-to-peer renting (Fraiberger and Sundararajan 2015; Suellentrop 2010).

Before the Internet era, renting a car, a drill, or a parking space was obviously possible, but usually it was more of a problem than it was worth. Thanks to the Internet and the development of specialized platforms, companies and private individuals from different parts of the globe can connect, exchange, and share. The network has greatly facilitated all activities in this area: providers can instantly and continuously publish information about their new rental offers, and at the same time recipients can quickly find these offers. This is supported by constantly evolving search engines, thanks to which one can find the closest company or person willing to rent or share the necessary thing.

Platforms such as Airbnb, RelayRides, Carpooling, ParkatMyHouse, and TaskRabbit connect property owners, holders of particular qualifications and skills, as well as people simply having free time to offer with those who would like to use these resources. Mobile devices and applications make it even easier and faster to search for suitable offers (e.g., smartphones with GPS enable consumers to check where the nearest car offered for rent is parked), and online payment systems allow for instant settlement of transactions. At the same time, virtual communities and specialized platforms provide their users with tools that allow them to verify the credibility of a potential partner for a transaction. As a result, a "trust database" is created in parallel to the technological infrastructure, based on new reputation systems and alternative currencies. Thanks to it, transactions carried out within the framework of access-based consumption are accompanied by a growing sense of security.

Unfortunately, to use the non-ownership mode mediated by mobile technology and the Internet, customers need certain technical skills. This strong focus on technology makes it difficult for less tech-savvy users to participate in the described processes (Chan and Shaheen 2012). Moreover, offerings that rely on

digital communication tend to appeal to primarily young people (Rudmin 2016) which may lead other demographic groups to feel left out.

Despite the above disadvantages, one should remember that none of the described activities would be that easy, and some would not even be possible, without the Internet and information technology. In consequence of technological development, access-based solutions are applied on a much larger scale, shifting non-ownership consumption into a popular trend rather than only some novelty for a narrow group of consumers.

RESEARCH METHODOLOGY

Data Collection and Sample Characteristics

The data was collected during the first two quarters of 2016 with an online survey conducted among adult Polish consumers. Since this was an omnibus survey, we had rather limited possibilities with reference to the number and length of questions included in the questionnaire. We managed, however, to collect the data regarding crucial topics, that is: frequency of several behaviors representing respondents' technological involvement, frequency of renting and borrowing in various fields and forms, and finally respondents' knowledge about access-based consumption.

Although a purposive sampling technique was applied (a link to the survey platform was sent by an email), the ultimate sample was drawn at random from the database of all filled questionnaires (altogether there were 1472 properly completed questionnaires). We wanted to obtain a sample structure similar to the structure of Internet users' population in terms of consumers' gender, age, and education level. Thus, we may consider the sample as obtained through the quota-sampling procedure. The final sample consisted of 1112 respondents. Table 1 summarizes their characteristics.

Measures and Methods

We argue here that consumers' good insight into and openness to use modern technologies (in terms of both devices and apps) may encourage them to a faster adoption of new ideas in other fields of life, including access-based solutions in the process of acquiring goods and services. Hence, starting the analyses we made the general assumption that more intensive users of communication and information technologies are also more eager to adopt access-based consumption. We assumed that higher technological involvement will be correlated with greater frequency of behaviors representing non-ownership consumption. However, we also expected that not all behaviors regarding the use of information and communication technologies are equally capable of discriminating between the consumers. In fact, we planned to determine which particular activities reflecting technological proficiency are more indicative of a consumers' greater readiness to rent/borrow things instead of buying them. That is why we decided to use multiple regression and a full model, allowing us to compare the relative importance of separate variables. Since our goal was to identify a set of activities regarding the technology use that would be better in distinguishing more intensive users of access-based consumption, we also decided to use backward elimination regression allowing us to find a reduced model that best explains the data.

TABLE 1. Demographic and Socioeconomic Profile of Respondents

Respondents' Features		Number (N)	Percent (%)
Gender	Male	555	49.9
	Female	557	50.1
Age	from 18 to 29 years	407	36.6
	from 30 to 39 years	327	29.4
	from 40 to 49 years	201	18.1
	50 years and older	177	15.9
Education level	Elementary or vocational	189	17
	Secondary or post-secondary	489	44
	University education (BA, MA, or higher)	434	39
Financial status	Very bad and bad	82	7.5
	Average	457	41.8
	Good	496	45.4
	Very good	58	5.3
Household monthly income in Polish zloty (PLN)	Below 1,500	54	5.5
	1,500 to 4,000	400	41
	4,001 to 7,000	332	34.1
	7,001 to 10,000	118	12.1
	Over 10,000	71	7.3
Number of people in the household	1 person	80	7.4
	2 persons	229	21.3
	3 persons	266	24.7
	4 persons	270	25.1
	5 or more persons	231	21.5

We started with a model which regressed nine independent variables reflecting the broad scope of activities representing technological involvement on the dependent variable of the AbC index (access-based consumption index). We used the frequency of the respondents' various renting/borrowing/lending experiences within the last year as a surrogate for the consumer's engagement in this alternative consumption mode, represented by the aforementioned AbC index.[1] See Table 2 for the details, descriptive statistics, and correlation indices.

Correlations between all independent variables and the dependent variable were significant at $p = 0.05$, although values of some were very low, suggesting that their predictive value might turn out insignificant.

RESULTS AND DISCUSSION

Table 3 details the statistical results of regressing nine independent variables on the dependent variable representing consumers' engagement in renting and borrowing over the last year. The initial multiple regression model with all nine

[1]To obtain the AbC index we summated points indicating the frequency of five activities connected with renting and borrowing/lending as well as the frequency of borrowing/renting (instead of buying) necessary products out of seven different categories.

TABLE 2. Variables Characteristics, Descriptive Statistics, and Full Model Correlations

Variable Coding	Variable Description	Descriptive Statistics						Correlations
		N	Mean	Median	SD	Min.	Max.	AbC Index
AbC index	Sum of points indicating frequency* of cases of borrowing/lending/renting within last year, altogether 12 activities	1036	21.9	20.0	8.134	12.0	56.0	1.000
ICT.1	Conducting an online search to collect product information before buying it****	1103	13.5	15.5	9.521	0.0	25.0	-0.061*
ICT.2	Posting opinions about the purchased products and rating them online	1104	5.9	2.0	7.509	0.0	25.0	0.350**
ICT.3	Reselling used products via the Internet	1100	5.0	2.0	7.053	0.0	25.0	0.373**
ICT.4	Sharing own resources online (e.g., music, movies, books)	1104	4.5	2.0	6.418	0.0	25.0	0.433**
ICT.5	Using resources shared by others online (e.g., music, movies, books)	1094	3.9	0.0	6.633	0.0	25.0	0.522**
ICT.6	Using online dictionaries, encyclopedias, etc.	1100	11.9	7.0	9.909	0.0	25.0	0.092**
ICT.7	Using smartphone or tablet when shopping in a store to check other stores' offers	1104	9.2	7.0	9.135	0.0	25.0	0.212**
ICT.8	Using a smartphone and special apps to make payments	1106	4.0	0.0	6.886	0.0	25.0	0.480**
ICT.9	Using QR codes	1101	3.3	0.0	5.978	0.0	25.0	0.445**

*Correlation is significant at the 0.05 level (two-tailed).

**Correlation is significant at the 0.01 level (two-tailed).

*** Frequency of behaviors reflecting access-based consumption adoption was rated on a five-point ordinal scale.

**** For all ICT variables frequency of the described behaviors over the last year was measured on the same five-point scale with the following descriptions of the successive points "not even once," "1 to 3 times," "4 to 10 times," "11 to 20 times," "over 20 times." For analyses we used class interval arithmetic mean (last class was closed at 29 times within last year).

predictors[2] produced $R^2 = 0.397$, $F(9,992) = 72.825$, $p < 0.001$. As it can be seen, six out of nine variables significantly predicted consumer's activity in renting and borrowing as expressed by the AbC index. Since we used the backward elimination method[3] those three insignificant variables were excluded from the model one by one in the successive steps of a procedure. The resulting final model (the fourth one) consisted of six remaining predictors, which explained 39.5 percent of the variance ($R^2 = 0.39$, $F(6,995) = 108.364$, $p < 0.001$).

Three variables excluded as not contributing to the tested model were (given in an order in which they were removed): "using a smartphone or a tablet when shopping in a store to check other stores' offers"; "posting opinions about the purchased products and rating them online," and "using online dictionaries, encyclopedias, etc."

The analysis uncovered that out of the other six variables left in the final model, five had the assumed positive regression weights, indicating that con-

[2]We used the variance inflation factor (VIF) to detect possible multicollinearity between the predictors and there were no VIF values exceeding 1.75 in any model.

[3]The criterion used to remove the variable from a model was the probability of F-to-remove ≥ .100.

TABLE 3. Initial and Final Models Summary

Predictors	Initial Model (R^2= 0.398; Adjusted R^2= 0.392)					Final Model (R^2= 0.395; Adjusted R^2= 0.391)				
	Unstandardized Coefficients		Standardized Coefficients			Unstandardized Coefficients		Standardized Coefficients		
	β	Std. Error	β	*t*	Sig.	β	Std. Error	β	*t*	Sig.
(Constant)	12.198	0.770		15.842	0.000	12.510	0.724		17.282	0.000
ICT.1	–0.565	0.173	–0.089	–3.266	0.001	–0.481	0.156	–0.076	–3.085	0.002
ICT.2	0.286	0.206	0.045	1.391	0.164	—	—	—	—	—
ICT.3	0.676	0.192	0.103	3.516	0.000	0.729	0.184	0.111	3.956	0.000
ICT.4	0.741	0.224	0.107	3.304	0.001	0.824	0.212	0.119	3.878	0.000
ICT.5	1.765	0.207	0.264	8.508	0.000	1.835	0.203	0.274	9.056	0.000
ICT.6	0.233	0.153	0.041	1.525	0.128	—	—	—	—	—
ICT.7	–0.157	0.167	–0.027	–0.942	0.346	—	—	—	—	—
ICT.8	1.266	0.208	0.193	6.094	0.000	1.240	0.204	0.189	6.063	0.000
ICT.9	1.031	0.220	0.142	4.677	0.000	1.036	0.220	0.143	4.712	0.000

sumers declaring higher frequency of these five behaviors were expected to have a higher AbC index. However, to our surprise, one variable ("conducting an online search to collect product information before buying it") had the negative effect on the dependent variable ($\beta = -0.076$, $p = 0.002$).

Among the remaining five variables, the most significant factor in predicting consumers' use of the access-based solutions was "using resources shared by others online" ($\beta = 0.274$, $p < 0.001$). The next two variables represented "using a smartphone and special apps to make payments" ($\beta = 0.189$, $p < 0.001$) and "using QR codes" ($\beta = 0.143$, $p < 0.001$). The last two variables had similar impact indicated by the very close regression weights: "sharing own resources online" ($\beta = 0.119$, $p < 0.001$) and "reselling used products via Internet" ($\beta = 0.111$, $p < 0.001$).

These results suggest that certain consumers' activities involving the use of information and communication technologies are indeed related to individuals' readiness to use non-ownership consumption mode, however, as we expected, not all of these activities and not all of them to the same extent.

Considering the first three variables that were excluded from the model, we may state that at least two of them, that is "using online encyclopedias, dictionaries, etc." and "using a smartphone or tablet when shopping in a store to check other stores' offers," represent behaviors which are relatively common among Internet users. Our study itself confirms this remark since according to the collected data only 21 percent of the surveyed consumers never used a mobile device to check other stores' offers, and just 13 percent of them never used an online dictionary or encyclopedia in the previous year. Moreover, the latter activity was on average performed almost twelve times within the previous year and the former one around nine times.

As such relatively common behaviors, they naturally have lower potential to discriminate between consumers. Still, this notion seems insufficient as an explanation of their insignificance, especially if another popular behavior, which

is collecting product information online prior to a purchase (being actually the most widespread activity—only 6 percent of the respondents declared not performing that even once within the previous year) was included in the final model as a significant predictor. In this case, however, the striking aspect was the already mentioned negative sign of the coefficient, indicating that the more frequently an individual seeks for the product information via online search, the less frequently they use renting and borrowing to satisfy their needs.

Actually, this counterintuitive outcome offered an additional clue in searching for the explanation of the presented results. It gave us the idea of implementing the diffusion of innovation theory (Rogers 1962) to interpret the collected data. Applying this theory, we may perceive particular behaviors representing the use of information technologies like innovations, with their typical adoption cycle. Consequently, we may assume that as a certain technology-based operation becomes more and more popular, it simultaneously loses a kind of "distinctive power" that all innovations have at the beginning of the diffusion process. Hence, such a popular behavior no longer serves as an effective criterion to distinguish different groups of consumers. Still later, as this behavior becomes truly common, performing it becomes a standard realized more and more often, especially by members of the late majority and laggards, but not by innovators because at this stage of diffusion they are probably already looking for something new (Rogers 1962; Wejnert 2002). Since the group of latest adopters is obviously the least likely to accept new ideas, they are not eager to adopt access-based consumption being exactly such an idea. And this might suggest an explanation for the opposite-than-expected direction of the correlation between the AbC index and the frequency of searching product information on the web. Fortunately, regardless the actual reason of the negative coefficient, its absolute value is so low that the real impact of this predictor is negligible.

Other survey results seem to confirm the above observations. For example, five variables determined to be significant in predicting adoption of non-ownership consumption are the ones which are much less popular among the respondents, which in turn suggests an earlier stage of the adoption cycle. In fact, we could observe that behaviors represented by variables with the higher Beta coefficient values (ICT.5, ICT.8, and ICT.9) are less widespread (55 to 57 percent of the respondents declared not performing them) than the other two (ICT.3 and ICT.4—approximately 40 percent of the surveyed consumers admitted they never resold anything online nor shared their own resources with other web users).

We are aware that the above deliberations are disputable, representing more of a supposition than a substantiated explanation, and as such should be treated with caution. This however does not contradict drawing a general conclusion that in predicting the access-based consumption adoption by examining consumers' behaviors connected with the use of modern communication technologies, it is more reasonable to regard the behaviors that are still in the early adoption phase as probably the ones more advanced and requiring better knowledge and skills. This conclusion seems justified mostly by the fact that innovators and early adopters, with their specific set of "innovation-seeking" attributes, are faster in adopting various new ideas in more than one field. This is even more probable with regard to such strongly related areas as access-based consumption and information and communication technologies.

TABLE 4. Correlations Coefficients between ICT Index and Selected Variables

Variables		ICT Index
AbC index		0.617*
Knowledge of solutions allowing for practicing access-based consumption		0.275*
Frequency of performing access-based consumption behaviors		
	Borrowing something from friends (free of charge)	0.278*
	Lending something to friends (free of charge)	0.217*
	Renting something from other consumers (friends or strangers)	0.563*
	Renting something to other consumers (friends or strangers)	0.577*
	Renting something in a rental company	0.549*

* Correlation is significant at the 0.01 level (two-tailed).

To supplement the above observations we used the obtained results and constructed an ICT index, made by summing the points indicating frequency of performing five technology-based behaviors included in the final model (and having positive Beta coefficients[4]). We wanted to examine how the recognized predictors relate to some aspects of the studied phenomenon (see Table 4).

Data confirm that there is a significant and strong positive relationship between the ICT and AbC indices ($r = 0.62$, $p < 0.001$), proving that the more frequently consumers perform all five behaviors connected with the use of modern technologies, the more frequently they use renting and borrowing as alternative modes of need satisfaction. It is worth noting that the correlation coefficient for the relationship between the AbC and ICT indices—including all nine initial variables—was lower and amounted to $r = 0.51$, $p < 0.001$. This again proves that the identified set of five variables is better in predicting frequency of non-ownership consumption behaviors than the initial one.

Another interesting outcome is the significant, though rather weak, positive relationship ($r = 0.27$, $p < 0.001$) between the ICT index and a cumulative variable reflecting respondents' knowledge regarding the accessibility of various solutions representing access-based consumption (e.g., knowing the possibility of renting different products, concepts of carpooling, and offering one's own idle items for peer-to-peer renting). This proves that more frequent use of information and communication technologies positively affects the consumers' awareness regarding alternative consumption modes.

Finally, we wanted to get a deeper understanding of the relationship between the consumers' use of information and communication technologies and their engagement in different forms of access-based consumption. One must remember that non-ownership consumption manifests itself in various ways. Hence, we meant to verify which forms of access-based consumption are particularly related to the analyzed symptoms of respondents' technological involvement. As shown in Table 4, there is a clear difference between access-based activities engaging friends and performed free of charge (i.e., "regular" borrowing

[4]We excluded the one variable with a negative coefficient in order not to mix conflicting data.

from/lending to friends), and activities involving actual transactions (i.e., three kinds of renting). While frequencies of the former have rather weak relationship with the ICT index ($r = 0.28$, $p < 0.001$ and $r = 0.22$, $p < 0.001$, respectively), the latter are strongly related to this index (for all three behaviors $r \geq 0.55$, $p < 0.001$).

These results seem to bring our analysis to the next level. They may suggest that the level of consumers' technological involvement is more important in shaping their inclination to use the most "advanced" solutions representing access-based consumption, in other words, the ones based on paid transactions (i.e., renting to and from strangers and companies). In turn, engagement in the common acts of borrowing/lending between friends and family members seems significantly less related to the use of modern technologies. This supposition, however, requires further investigation.

MARKETING IMPLICATIONS

There is no doubt that the possession of goods, especially the ones representing status symbols, is still valued as this is an effective indicator of the success and social position of an individual. Hence, there is no chance that in the near (or even imaginable) future ownership will completely lose its meaning and be replaced by borrowing, renting, or sharing. However, even this slow move from a world organized around possession to one organized around access to assets is significant enough to be noted and examined, as well as taken into account by companies since it has a great potential to reconfigure business sectors.

Considering all the aforementioned ecological, social, and individual implications of even a partial resignation from the ownership, the growing popularity of this trend represents a positive tendency that should be promoted and spread. However, looking at it from a business perspective, the dissemination of access-based consumption represents a big challenge, if not a threat, due to fewer purchases, shrinking markets for certain durables, and a consequent distress in conventional activity. Some even warn that it can shake the foundations of the capitalist economy based on private property (Cowen 2018). Even if this sounds like an overly dramatic reaction to some still relatively limited shifts, there is no doubt that producers have to reconstruct their strategies and adapt their actions to the new consumers' perception of buying, possessing, and using things.

Instead of wringing their hands, preparing for the worst, and sticking to the past methods of running a business in the hope that access-based consumption is just a fad, managers should get ready for its rising popularity. The concept that customers are not buying products but experiences delivered by these goods is not new. Hence, companies have had some time to shift their focus from selling material items to selling feelings and experiences a consumer may have while using the items.

Furthermore, the evolving non-ownership consumption trend should turn businesses' attention to the specific attributes of its adopters, for they make a distinct and still-rising market segment. They are likely to be less materialistic than their counterparts, they are increasingly tech savvy, and able to use technologies to search for lower fees, greater convenience, and ease of use. All these attributes must be taken into account in targeting and segmentation strategies. Also promotional appeals directed at these new customers need to be adjusted by

involving immateriality aspects and stressing the use values of a product which are more important to consumers with a liquid relationship to their possessions.

There are numerous examples of successful business reactions to the non-ownership consumption development. Many startups have created virtual marketplaces successfully supporting peer-to-peer renting of whatever consumers possess and want to rent. Some companies previously selling durables now include renting them in their offer (Samuel 2014; Winterhalter, Wecht, and Krieg 2015). The access-based mode can be treated as a product trial mechanism: people first try the product by renting it, but sometime later they may decide to purchase one when they can afford to buy it. Even peer-to-peer lending can have some positive aspects from the company perspective as it creates opportunity for consumers to share not only a product but also consumption experiences and knowledge about the brand and its offer. It may provide an inspiration to try out other products of the same brand, including complements.

Matzler, Veider, and Kathan (2015) present six ways in which companies can respond to the rise of collaborative consumption which are equally useful to adjust business activity to access-based consumption. In turn, Winterhalter, Wecht, and Krieg (2015) present four strategies that companies with traditional hardware-based business models can employ to stay competitive in the markets changed by the rise of sharing economy. No matter how the strategies will be described or called, there is one obvious recommendation: managers of the traditional firms should be proactive and consider redesign of their business models to the ones facilitating access to their products and services, including creation of "payment for access" offers.

The above observations lead to the conclusion that for those who are ready to accept significant changes, an evolution of non-ownership trend may become an opportunity as well.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The first limitation of the study results from the type of sampling procedure. Considering the topic, the fact that our research was conducted among Internet users does not represent a problem since the use of modern technologies (including Internet) was a critical attribute of a potential respondent. However, the purposive nature of sampling method makes it impossible to generalize the outcomes to make inferences about the whole population of Polish Internet users.

Another limitation is connected with an arbitrary and rather narrow selection of examples reflecting respondents' technological involvement and access-based consumption engagement included in the questionnaire. Perhaps different choices of the consumers' behaviors in both areas would produce different results. This doubt, however, makes a good starting point for future research. Especially given that the scope of possible information and communication technology–based activities, as well as non-ownership consumption options, is constantly evolving, this type of study should be systematically updated.

Despite the above limitations, we believe the research yields valuable contributions to this underdeveloped field.

CONCLUSION

The idea of short-term product rental as an alternative to ownership is still in the early adoption phase, but because of its positive aspects various subjects may be willing to promote faster acceptance. It seems that the best way to encourage people to engage in access-based consumption is to present and spread positive examples of successful and satisfying actions of this kind. Stories about positive experiences, economic advantages, and the low risk of the non-ownership mode of needs satisfaction should be spread via word of mouth. Research results confirm that the frequency of observing friends performing behaviors representing collaborative consumption, as well as frequency of participating in discussions regarding this trend, were significant predictors of an individual's propensity to use this alternative consumption mode (Burgiel and Zralek 2018). Hence, it would be best to reach and use opinion leaders who can positively influence other consumers' perception of access-based consumption. These opinion leaders are frequently among the early adopters, which means that exactly this group of consumers should be identified. Rental companies, which are equally interested in the rising popularity of non-ownership consumption, may ask their customers to talk to others about their experiences, encouraging them to try this alternative way of needs satisfaction.

As it can be seen, the development of access-based consumption has multiple implications, particularly positive from an ecological and social perspective. Because we are convinced that humanity really needs an alternative scenario for its continued existence, one in which overconsumption does not lead to critical devastation of the planet, we do hope that access-based consumption plays an important role in such a scenario.

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Institutional Investors, Common Control, and Risk: An Investigation into Motives and Consequences

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Abstract

This paper provides a synthesis of the recent literature related to corporate ownership issues and theoretical models of corporate and industry interactions linked through common ownership by institutional investors. The paper elaborates a theme observed by Azar and others with a focus on airlines (2017) and banking (2016). We supply a mathematical framework suggesting that homogeneity in operations of firms under common ownership may put the institutional owner's long-term interest at risk. To stimulate future research, we present a preliminary analysis of two sampled industries. Common ownership is also observed in other industries.

DIVERSIFIED VERSUS CONCENTRATED CORPORATE OWNERSHIP

Before the Industrial Revolution, most business organizations were sole proprietorships or partnerships. After the Industrial Revolution, the scale of and the demand for capital in new industries, such as rail and air transportation and steel making, stimulated the growth of stock exchanges and led to a separation of corporate ownership and corporate control (Berle and Means 1932). This separation, in turn, prompted the development of *agency theory.* Numerous authors have published on theoretical models and empirical analysis of agency theory (Jensen and Meckling 1976). However, Holderness, Kroszner, and Sheehan (1999) suggest that the trends of separation of corporate control from ownership may have changed. In the almost two decades since then, evidence suggests that a growing number of publicly listed firms in the United States are now closely held. Examining the insurance industry, Pooser, Wang, and Barrese (2017)

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report that about 38 percent of large stock insurers are controlled by families[1] or block holders, and using the same percentage for control, approximately 22 percent of stock insurance companies could be controlled by a small set of institutional investors. This observation of U.S. businesses is consistent with evidence from Canada, Germany, and Taiwan (La Porta, Lopez-de-Silanes, and Vishny 1998; Klein, Shapiro, and Young 2005; Lehmann and Weigand 2000; Yeh, Lee, and Woidtke 2001). The increasing ownership concentration raises the question of the sufficiency for control. Seemingly low ownership percentages are often deemed sufficient to control the firm. For example, Anderson and Reeb (2003) consider founding family control to be evidenced by any positive ownership percentage plus a seat on the board held by a member of the founding family; a 15 percent voting block is a more common measure of control according to Yeh, Lee, and Woidtke (2001).[2] Recent studies consider whether the incentives described by the agency theory apply in a period when there is a changing form through which firms are owned, particularly through the growth of institutional investors (Gillan and Starks 2007).

The ownership of publicly listed corporate equity by *physical persons* (a term used by Çelik and Isaksson 2013 to distinguish human individuals from organizations) fell by almost 50 percent in the past 50 years, from 84 percent in the mid-1960s. This change in the method of ownership has many causes, but the most obvious manifestation of the change is the growth of ownership by institutional investors (Çelik and Isaksson 2013).

Çelik and Isaksson also distinguish between *traditional* and *alternative* institutional investors, but the distinction is attributed, primarily, to a lack of reliable data for hedge funds, private equity firms, and sovereign wealth funds.[3] Traditional institutional investors include pension funds, investment funds, and insurance companies. Bemoaning the lack of a simple definition for an *institutional investor,* they point to the fact that the organizations are legal entities, albeit widely varying, not physical persons. The legal form includes profit-maximizing joint stock companies, limited liability partnerships, and incorporation by special statute (e.g., some sovereign wealth funds).

Attempts to classify institutional investors are sometimes undertaken by studies with a decidedly managerial bias (Hendry et al. 2006, 1122): "Institutional investors clearly perceive themselves … primarily as traders. They may occasionally take on ownership functions, either to satisfy their client's needs to be seen to be pursuing 'responsible ownership' or as a way of imposing pressure … to salvage … a losing position." This description is less full than that of Porter (1992), who distinguished between dedicated institutional investors—those who acquire concentrated equity positions in a few firms and have extended investment horizons—and transient institutional investors—those with a shorter investment horizon. Both descriptions, however, predate the much more significant role of institutional investors today. In 2005, few institutional investors

[1]Family control is present if members of a family own a significant (15 percent in general) of the company equity and hold senior managerial roles.

[2]"We find that when we calculate the critical level of control for each firm, families need only 15 percent control, on average, to control a firm effectively." (Yeh, Lee, and Woidtke 2001, 3)

[3]Çelik and Isaksson (2013, 96) cite a lack of data for limiting the list: "Other categories, like closed-end investment companies, proprietary trading desks of investment banks, foundations and endowments could … be added."

had a 5 percent share of a large set of the manor firms in an industry; today that large, common ownership is the typical state for major industries. This evolution in stock ownership may have strategic competitive consequences (Connelly et al. 2010). Connelly and coauthors focus on the strategic position of a single firm, for example by taking a position that places a heavier weight on long-term relative to short-term performance; Azar, Raina, and Schmalz (2016) extend the notion of an institutional owner having a strategic influence for the benefit of the investor even when an owned firm may be disadvantaged.

Two recent studies extend the studies to the effect of ownership structure on firm behavior (Connelly et al. 2010; Pooser, Wang, and Barrese 2017). This examination and a recent working paper (Pooser, Wang, and Barrese 2018) extend the notion of an ownership effect on firm behavior to a specific type of behavior, involving the setting of a firm's risk tolerance. We broaden that speculation from the firm to the industry in which the firm competes.

After observing that the term *institutional investor* is synonymous with *intermediary investors*—i.e., an institution that manages and invests other people's money—Çelik and Isaksson 2013 describe a range of possible *engagement levels* an institutional investor may target: no engagement through *inside engagement*. Exchange traded funds (ETFs) are a type of *no engagement* institutional investor. *Inside engagement* describes an owner holding a controlling stake in the company. We hypothesize, based on recent studies describing the effect of increasing concentrations of economic wealth and the growth of defined benefit plans in the United States, that institutional investors are increasing of the *inside engagement* type. This would be a reasonable description of the Ontario Teachers' Pension Plan's 2012 acquisition of a majority interest in a U.S. holding company that invested heavily in insurance agencies (Allan 2012). An open question is what these inside engagement investors do with their power to affect corporate behavior. Traditionalists focus on the ability of the institutional investors to reign in the potential excesses of managers, thereby creating a free-rider opportunity for smaller investors (Hendry et al. 2006). More recent studies suggest that the influence of *inside engaged* investors may be used to optimize objectives of the investor, perhaps at the expense of other stakeholders of the firm (Azar, Raina, and Schmalz 2016; Azar, Schmalz, and Tecu 2017).

INSTITUTIONAL INVESTORS AND COMMON OWNERSHIP

In recent decades, tax systems in the United States have become less progressive. These decades were also times of financial innovation and economic cultural changes, notably the movement from defined-benefit pension schemes to defined-contribution retirement plans sponsored by employers. The percentage of private sector workers participating defined contribution plans rose from 7 percent in 1979 to 34 percent in 2014, while the percentage of participation in defined benefit plan declined from 28 percent to 2 percent over the same period (EBRI, n.d.). In the meantime, the assets of U.S. retirement plans increased to $28.2 trillion by the end of 2017 (ICI, 2018). These changes fed the growth of institutional investment companies. Two of these firms, Fidelity Investments Inc. and The Vanguard Group, enjoy a very high level of name recognition; only

slightly less well known are BlackRock Inc. and State Street Bank. Together, these four firms report over $15.5 trillion characterized as assets under management. For a size comparison, the gross domestic product (GDP) of the United States and China in 2016 were $18.6 trillion and $11.2 trillion, respectively. With a need to manage significant assets, it is inevitable that these institutional investors hold a significant share of the voting stock of competing firms in an industry; the consequence of this reality is only recently being studied and is referred to as *common ownership*.

Literature on institutional owners is rapidly evolving. Existing studies note that institutional owners affect the corporate policies of those firms in which they invest in research and development (Bushee 1998; Aghion, Van Reenen, and Zingales 2013), in corporate governance and payout policy (Grinstein and Michaely 2005; Aggarwal et al. 2011; Appel, Gormley, and Klein 2016; Crane, Michenaud, and Weston 2016), and in corporate leverage policies (Michaely, Popadak, and Vincent 2015). Just recently, studies have begun to consider the effects that institutional investors may have on the interaction between companies of which institutional investors hold equity stakes at the same time. Topics studied include the effect of common ownership on mergers and acquisitions (Hansen and Lott 1996; Matvos and Ostrovsky 2008; Harford Jenter, and Li 2011) and on industry competition (He and Huang 2016; Azar, Raina, and Schmalz 2016; Azar, Schmalz, and Tecu 2017). In this common ownership literature, researchers have also identified BlackRock, and a few legal journals have extended the linkage to groupings of institutional investors; specifically, BlackRock, State Street, Vanguard, and Fidelity (Batts 2018).

The behavior of institutional investors gives rise to another ownership pattern that is only recently being studied. Individuals who invest with mutual funds or institutional investors are less interested in the performance of a specific firm than in the aggregate performance of a grouping of firms represented in the fund portfolio. The large concentration of wealth held in these funds gives limited opportunities for the funds to concentrate on any one firm; instead they diversify their holdings and hope that the sectors will perform well. A question raised is whether the fund managers do more than hope for sector performance. A hypothesized noncompetitive market effect associated with ownership of corporate competitors by a diversified institutional investor is found by Azar, Schmalz, and Tecu (2017). They determine that airline ticket prices on selected routes was 10 percent higher due to common ownership by a specific institutional investor. They argue that this diversified institutional owner of most of the firms in an industry focuses on industry performance as opposed to firm specific performance. However, due to their ability to devote resources toward research and expertise in choosing investments, it is also possible that institutional investors may invest in firms expected to outperform others in their industry.

Freeman (2018) observes that "the increasing prevalence of institutional ownership of corporate equity creates many cases where two firms are owned by the same institutional investors. If these two firms have the ability to influence each other's profits, the presence of common owners can affect how the firms interact, since they share the goal of maximizing the wealth of the same owners." She defines common ownership as the extent to which firms are held by the same institutional investors and finds evidence that the relationship between common

ownership and vertical relationship strength is causal. On the other hand, risk may increase with common ownership. Freeman (2018) states that the underlying theme of the literature is that common ownership can have negative real effects. Matvos and Ostrovsky (2008) suggest that distorted incentives due to common ownership in targets and their acquirers could increase the frequency of bad acquisitions. Azar, Raina, and Schmalz (2016) and Azar, Schmalz, and Tecu (2017) argue that common ownership reduces competition leading to higher market prices. With these papers pointing to the "dark side" of common ownership, could there be any "bright side" to the ability of institutional owners to alter interactions between the firms jointly held in their portfolios? Patel (2018) argues that the mere presence of common ownership by institutional investors is not enough to show anticompetitive behavior. Instead, common ownership may simply be a result of investment choice. An incentive exists for one party to exploit another when both are under common ownership; as early as the 1990s this was described as having a potential to affect the risk posture of each firm (Hansmann 1996, 21–22). That argument, and others, focuses on risk from the firm perspective (Antón et al. 2016).

The role of institutional investors in the governance of firms is changing. A review of the 20-year period prior to 2000 claims, "despite the substantial growth of institutional ownership of U.S. corporations ... there is little evidence that institutional investors have acquired the kind of concentrated ownership positions required to be able to play a dominant role in the corporate governance process" (Edwards and Hubbard 2000). A more recent study observes that data on institutional ownership is consistent with a hypothesis that common ownership relates to seeming coordination of firm behavior in some airline routes (Azar, Schmalz, and Tecu 2017). Others have been more specific: "mutual funds and other institutional investors may cause softer competition among product market rivals because of their significant ownership stakes in competing firms in concentrated industries" (Posner, Morton, and Weyl 2017; Freeman 2018).

Consistent with the product-specific study of Azar, Schmalz, and Tecu (2017), industry-specific studies also find a statistical correlation between ownership patterns by an institutional investor and performance (Pooser, Wang, and Barrese 2017). Pooser, Wang, and Barrese (2017) focus on the performance of family-owned insurers and consider other ownership effects, including non-family insider ownership, block holder ownership, as well as ownership by BlackRock Capital. Industrial organization studies note that it is often difficult to distinguish between competition and monopolistic competition because both drive excess profit to zero. Similarly, it is difficult when examining institutional investors to distinguish between skilled stock selection and exertion of a coordinating influence because each can be a cause of good performance.

In sum, the possibility of firm coordination through common ownership has long been recognized, but its researchers have opined that "significant legal obstacles discourage institutional investors both from taking large block positions and from exercising large ownership positions to control corporate managers" (Edwards and Hubbard 2000). That observation may have been accurate in 2000 but, fewer than 20 years later, we observe that four systemically significant institutional investors own large blocks of many firms in the financial sector. In fact, we find the same block of firms involved as those mentioned by legal

scholars (Baker 2016). While one study suggests that monopoly rents were being earned (Azar, Schmalz, and Tecu 2017), recent reconsiderations argue that evidence of such an effect is imperfect (Kennedy et al. 2017). Yet, no one questions the logic of a possible exploitation of individual firms in an industry for the good of the industry. We are left with a choice of bad alternatives if we do not accept the Azar observation: either those with common ownership are blind to the possibility of benefit, or they are executing poorly. We present two theoretical models that may be useful to explain the effects of common ownership.

MODEL 1: THE PERSPECTIVE OF THE FIRM

Consider two firms in the same industry, F1 and F2, and two institutional investors Ia and Ib. Both institutions invest in both firms. We use β_{a1}, β_{a2} to denote the percentage of shares of F1 and F2, respectively, owned by Investor Ia, and β_{b1}, β_{b2} the percentage of shares of F1 and F2 owned by Investor Ib. According to the reasoning of O'Brien and Salop (2000), corporate control that investors have or exercise over the firm is not necessarily proportional to the percentage of shares owned. A simple example is that two parties own 51 percent and 49 percent of a business. While the entitlements to the profits produced by the business are very close (51 percent versus 49 percent), the control over the business decisions by two parties may be 100 percent (by the party with 51 percent ownership) versus 0 percent. Hence a distinction between financial interest and corporate control is necessary. We use γ_{a1}, γ_{a2} to denote Investor Ia's control over decision making of F1 and F2 with regard to business operations such as pricing, product portfolio and risk preference. A simplified version of the model by Azar, Raina, and Schmalz (2016) states that the objective of the firm F1 is to maximize

$$\gamma_{a1}(\beta_{a1}\pi_1 + \beta_{a2}\pi_2) + \gamma_{b1}(\beta_{b1}\pi_1 + \beta_{b2}\pi_2)$$

where π_1 and π_2 are the profits of F1 and F2.

According to Azar, Raina, and Schmalz (2016), the maximized objective of F1 is proportional to

$$\pi_1 + \frac{\gamma_{a1}\beta_{a2} + \gamma_{b1}\beta_{b2}}{\gamma_{a1}\beta_{a1} + \gamma_{b1}\beta_{b1}}\pi_2$$

a function positively related to profits of the firm itself and its rival. The implication is that a firm will not compete so hard with commonly owned competitors as it does with competitors that are not part of its largest shareholder's investment portfolio.

MODEL 2: THE PERSPECTIVE OF THE INVESTOR

Consider an institutional investor with fund of 1 who invests ω ($0 < \omega < 1$) in Firm 1 and the remaining ($1 - \omega$) in Firm 2 of the same industry. The investment return on Firm 1's equity over a period is expected to be r_1, the actual return is denoted $X_1 r_1$, where X_1 is a random variable with $E(X_1) = 1$, and the variance of X_1 is denoted . Notations r_2, X_2, and σ_2^2 are similarly defined for Firm 2, with $(X_2) = 1$. In addition, we define ρ as the correlation coefficient between X_1 and X_2, thus $\mathrm{cov}(X_1,X_2) = \rho\sigma_1\sigma_2$. The investor's return from investment in two

firms is $R_I = \varpi X_1 r_1 + (1-\varpi)X_2 r_2$. The expected value of the investment return is $E(R_I) = \varpi r_1 + (1-\varpi)r_2$ and the variance of R_I is

$$Var(R_I) = \varpi^2 r_1^2 \sigma_1^2 + (1-\varpi)^2 r_2^2 \sigma_2^2 + 2\varpi(1-\varpi) r_1 r_2 \rho \sigma_1 \sigma_2$$

The mean-variance model of utility theory implies that the utility of this investment can be maximized by optimizing the mathematical expression below:

$$E[U(\Pi)] = E(R_I) - \frac{b}{2} Var(R_I)$$

where $b > 0$ is the Arrow-Pratt absolute risk aversion coefficient of the investor.

When everything else is held fixed, the expected utility is negatively related to the value of ρ, the correlation coefficient. Thus the expected utility is maximized when ρ takes on its minimal value. If the institutional investor plays a more active role in the management of both firms with the good intention of improving firm performance and $E(R_I)$, they run the risk of increasing the value of the correlation coefficient and reducing the utility when firms adopt similar strategies with tacit or explicit approval or even encouragement from the institutional owner.

If the variance is held fixed, the expected utility is positively related to r_1 and r_2, the expected return of both firms. This suggests that the institutional investor may achieve more by trying to boost invested firms' performance. When both expected returns and variance are allowed to vary, the expected utility of the investor may improve even when returns and variance both increase in value, as long as the change in returns can more than offset the change in variance. This is where both models can actually agree with each other.

SUGGESTED HYPOTHESES FOR EMPIRICAL WORK

Based on the discussion of the models, we propose two hypotheses for empirical analysis.

Hypothesis 1: Firm/industry performance improves with common ownership.

The measures of firm performance for this test may be return on equity, or Tobin's Q. ROE is a short-term metric while Tobin's Q is long-term oriented as it reflects the market's assessment of a firm's ability to create value in the long run. Empirical examination may be at the firm level or at the industry level to shed light on whether the institutional investors' interest rests on performance of individual firms or that of their holding in an industry.

Hypothesis 2: Competition between firms under common ownership is not as intense as when common ownership is absent or not significant.

Kwiecinski (2017) reviews literature for measures of competitive intensity. Commonly used measures include metrics based on questionnaires, on the Herfindahl-Hirschman index, or on quantitative indexes pertaining to the market share or the number of competitors. We propose a new measure of competitive intensity that captures the competitors' impact on an individual firm's performance, such as return on equity (ROE) or Tobin's Q. Specifically, for a particular publicly traded firm, a performance measure (ROE for instance), is recorded. The weighted average ROE of all other public

firms in the same industry is computed. Then Pearson's correlation coefficient can be found between individual firms' ROE and the average ROE of the competitors. This is a proxy measure of the coefficient ρ in the second model. The new measure of competitive intensity is defined as the negative of the Pearson's correlation coefficient. We'll call it the competitive intensity index (CII). The range of its value is from −1 to 1, with positive value indicating the degree to which a firm's value or performance is weakened by its competitors. The higher the value of CII when it is positive, the more a firm's ability to create value is limited by its competitors. Mathematically, the value of CII may be negative, suggesting a firm's performance may improve with the presence of competitors. We believe that CII can better measure the intensity of competition in an industry because the investors' ultimate concern is a firm's ability to create value, after all.

AN EXAMPLE OF FINANCIAL SERVICE SECTOR

Many studies discuss the agency theory literature regarding ownership types that are common in the financial services sector of the U.S. economy; these include ownership and control by families, by large block holders, and by institutional investors (Grundei 2008; Boyd and Solarino 2016). Summarizing recent work in banking and insurance, this section considers the institutional investor motivations, moving from the typical agency theory hypotheses focusing on monitoring and, recently, on the possibility of opportunistic behaviors (Pooser, Wang, and Barrese 2018). These industries are chosen because of their weight in the economy. As of 2017, finance and insurance together represented 7.5 percent (or $1.45 trillion) of U.S. gross domestic product (ITA 2018). The phenomena illustrated with reference to these two industries is noted to have expanded into other industries.

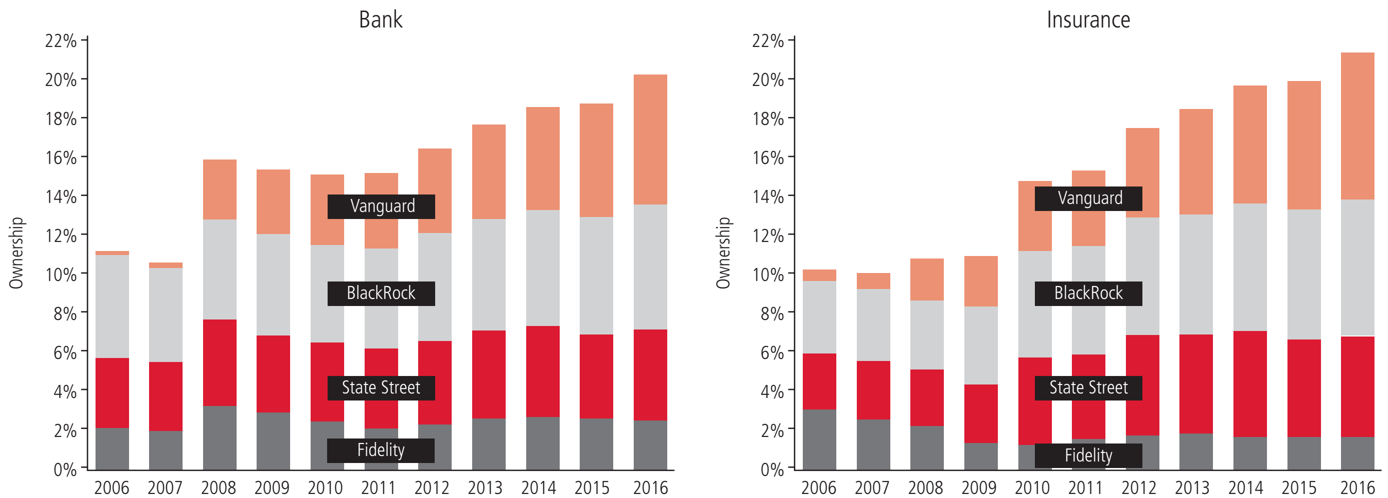
Firms operating in the insurance industry have two major ownership forms: stock firms and mutual firms. Almost half of the industry premiums are accounted for by mutual insurers, i.e., companies controlled by the firm's managers on behalf of policyholders (a form of insider control).[4] Of the stock firms, a large group are family controlled, estimated in one study at 22 percent of the industry's stock insurers (Pooser, Wang, and Barrese 2017). Institutional investors own large blocks of the other firms in the industry. Pooser, Wang, and Barrese tell a similar story about the banking industry. The percentage ownership of the insurance and banking industries held by the so-called "Big Four" institutional investors—BlackRock, State Street, Vanguard, and Fidelity—is shown in Figure 1 for the period from 2006 to 2016.

Of the four institutions, Fidelity kept steady investment in both industries in the period from 2006 to 2016, after a minor decrease in the first several years. State Street maintained its investment level in the banking industry, but almost doubled its ownership in the insurance industry. BlackRock increased its stake in both industries, with the growth rate in insurance higher than in banking.[5]

[4]The total level of 2016 industry premiums were $1.1 trillion, and these 20 firms accounted for almost 56 percent of the industry revenues. The non-stock firms in the top 20, those without a listed stock ticker, are mutual insurers. This ownership form is important in the insurance industry.

[5]It is worth noting that BlackRock is the financial advisor for iShares U.S. Insurance ETF that charges sizeable management fees. See the fund prospectus at https://www.ishares.com/us/products/239515/ishares-us-insurance-etf.

FIGURE 1. Industry Ownership by Institutions, by Year



Note: The left graph in the panel displays institutional ownership of banking industry by top institutions, and the right is for insurance. In both graphs, the four blocks in each column, from bottom to top, are for Fidelity, State Street, BlackRock, and Vanguard.

Vanguard experienced the greatest rate of investment growth in both industries, from less than 1 percent in 2006 to about 7 percent in 2016 in each industry. Table 1 demonstrates the significance of this ownership pattern for the industry by listing the relative size of the industry leaders in terms of direct premium written (DPW). For example, the Big Four own over 18 percent of the largest firm in the industry and equally large portions of most of the top ten competitors (see Table 1). A natural question, considered by Azar and others in other industries, is whether this common ownership influences competitive decisions.

Focusing on the insurance industry, as an example, the following table reports institutional ownership of the top ten life-health and property-casualty firms measured by 2016 sales (direct premiums written, or DPW). The percentage of industry premiums accounted for by each of the top twenty firms is charted in Figure 2. Following a typical pattern, the percentage accounted for by each firm diminishes rapidly until a relatively steady rate is achieved by firms ranked 11 (2.1 percent) through 20 (1.7 percent). The insurance industry reports that there are thousands of firms, but the top 10 firms account for 37 percent, and the next 10 firms account for another 19 percent of industry premiums.

The common-control literature provides limited evidence regarding the effect of cross-competitor institutional ownership on product prices (Azar, Schmalz, and Tecu 2017); on firm performance (Pooser, Wang, and Barrese 2017); and on productivity (Nickell, Nicolitsas, and Dryden 1997). The Big Four institutional investors have significant holdings in the top insurance firms; they own, on average, almost 20 percent of these industry leaders. BlackRock leads the group, its average ownership of seven stock firms among the top 10 companies is 6.5 percent. The literature is mixed regarding the effect of this concentrated and cross-competitor ownership.

The effect of this ownership pattern is interesting. If the firm ownership pattern is significant, as recent studies confirm that it is, how is the influence transmitted to firm action? One explanation might be the tacit behavior argu-

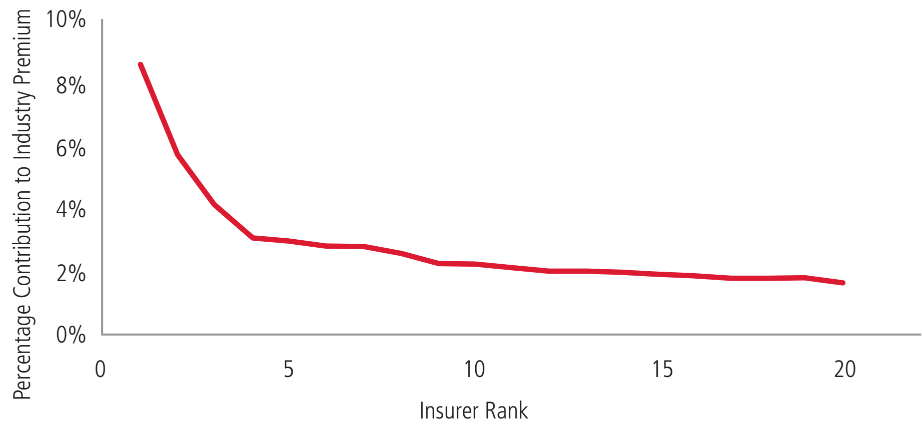
TABLE 1. Ownership of Top Insurance Companies by Institutions (2016)

Ticker	Group/Company (ROA; ROE)	2016 DPW	Primary	Vanguard (%)	State Street (%)	Fidelity (%)	BlackRock (%)	Other (%)	Sum (%)
MET	MetLife (0.61; 7.93)	95,110,802	Life-health	5.6	4.4	4.7	3.8	15.1	33.6
	State Farm Mutual (1.05; 1.77)	62,189,311	Property-casualty	Mutual				> 50	> 50
PRU	Prudential (0.96; 15.55)	45,902,327	Life-health	6.7	4.8	4.7	7.0		23.2
BRK	Berkshire Hathaway (6.79; 14.24)	33,300,439	Property-casualty	8.7	6.4	1.3	7.6	23.0	47.0
	Liberty Mutual (0.92; 5.99)	32,217,215	Property-casualty	Mutual				> 50	> 50
	New York Life (0.68; 9.72)	30,922,462	Life-health	Mutual				> 50	> 50
ALL	Allstate (2.85; 14.79)	30,875,771	Property-casualty	6.3	4.8	0.8	6.8	0.0	18.7
PFG	Principal Financial (0.96; 20.02)	28,186,098	Life-health	9.7	4.8	1.8	6.1		22.4
PGR	Progressive (4.32; 18.47)	23,951,690	Property-casualty	0.2	4.7	0.6	6.3		11.8
TRV	Travelers (1.97; 8.69)	23,918,048	Property-casualty	0.2	7.0	2.8	7.8		17.8
	Massachusetts Mutual	23,458,883	Life-health	Mutual				> 50	> 50
AIG	American International Group	22,463,202	Life-health	0.2	4.5	1.3	7.0		13.0
	Jackson National Life	22,132,278	Life-health	Mutual				> 50	> 50
ACA SA	AXA	21,920,627	Life-health	Foreign				1.0	
AEG	Aegon	21,068,180	Life-health				1.1	38.4	38.4
CB	Chubb	20,786,847	Property-casualty	7.8	4.7	1.4	6.5		19.4
	Nationwide	19,756,093	Property-casualty	Mutual				> 50	> 50
	Farmers Insurance Group	19,677,601	Property-casualty	Mutual				> 50	> 50
LNC	Lincoln National	19,441,555	Life-health	9.5	5.1	3.3	7.4		25.3
	USAA	18,273,675	Property-casualty	Mutual				> 50	> 50

ment suggested by Azar, Raina, and Schmalz (2016) and Azar, Schmalz, and Tecu (2017). Pooser, Wang, and Barrese (2018) present an alternative answer: that firms with a significant "common owner" take on higher levels of risk.

The empirical work of Azar and coauthors focus on product prices in airlines and banks. Airline industry is also the focus of Gerardi and Shapiro (2009) where they examine how competition affects product price and find that price diversion of individual airline companies is negatively associated with market competition. The results by Azar and coauthors reveal that firms owned by institutional investors charge higher prices and fees than those who are not under the influences of common ownership. It is stated clearly and worth noting that the observed higher prices are not an indication of firm collusion, but rather from the investors' lack of encouragement for competition between commonly owned firms, according to Azar and others.

FIGURE 2. Contribution (%) to Industry Premium, Top 20 Insurers

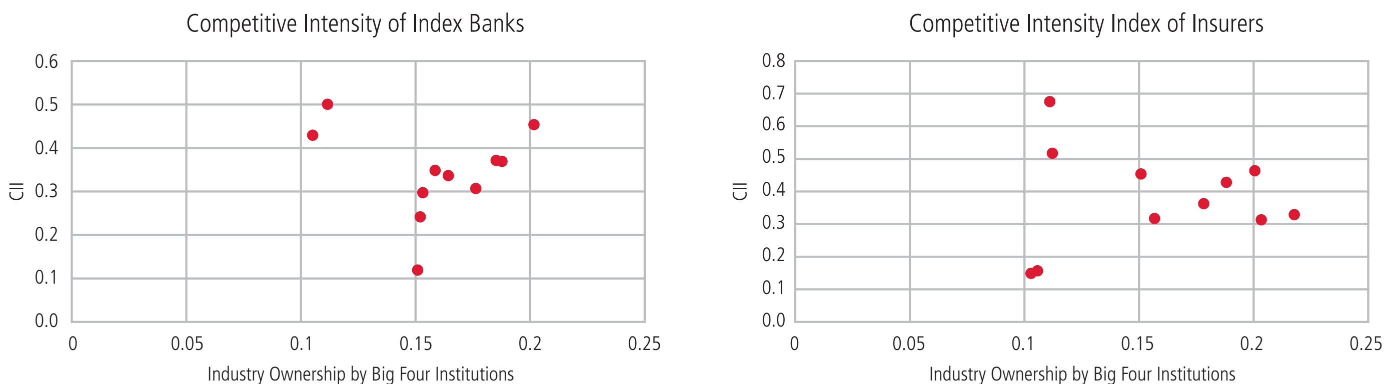


Based on the analysis of the models above, we examine the relationship between a firm's performance measures (ROE and Tobin's Q) and that of competitors in the insurance and banking industries, and then compute the value of a new measure of competition, the competitive intensity index (CII). For both industries in the period from 2006 to 2016, CII is always positive (Pearson's coefficient always negative), meaning a firm's performance is weakened by other firms in the same industry, thus confirming that firms compete against each other. Figure 3 portraits a visual relationship between the CII and common ownership (measured by the percentage of industry equity owned by the Big Four institutions). For the insurance industry, when the Big Four's stake in the industry increases, the CII value decreases, except for the two observations in the lower left corner. The banking industry seems to be telling a different story. No conclusive observation can be made without running a full-scale regression analysis. Further research is certainly called for to reveal more forces behind the appearance.

A PHENOMENON BEYOND BANKING AND INSURANCE

To expand the examination beyond the insurance and the banking industries, we collected data on firms in other industries to get a sense of common ownership in broader economic scale and its effects. We considered only those industries

FIGURE 3. Competitive Intensity Index Varies with Common Ownership



Note: The left graph in the panel displays the competitive intensity index and institutional ownership of banking industry, and the right one is for insurance industry.

where the primary firms are listed on a U.S. exchange. Table 2 summarizes the sample of five industries and top firms considered. In each case, up to eleven years of data is assembled, from 2007 through 2017 (firms and tickers listed in Table 2). In the period of observation, the percentage of the equity of each industry sampled that is owned by the top four institutional investors varies from about 5 percent to 20 percent, with an overall trend of increasing. For each industry, we construct a measure of industry performance, which is aggregated industry net income divided by aggregated industry assets. The value of correlation coefficient between the industry ROE and the percentage of industry equity owned by the top four institutions is found to be 0.27. The correlation is consistent with at least two explanations: (1) the top investors are better at picking successful industries, or (2) the involvement of the institutional investors in the ownership structure is somehow translated into superior industry performance.

REMARK AT THE END

The influence of institutional investors is estimated to have increased from about 5 percent in 1945 to over 67 percent in 2010 (Blume and Keim 2012) measured by the percentage of U.S. equities managed by institutions. This paper demonstrates that a large part of that 67 percent is clustered in the portfolios of only a few institutional investors. As the importance of institutional investors increases, the agency theory literature arguments must be revisited. That literature holds that these external monitors are effective counters to managerial incentives to expropriate firm value for personal gain (Pound 1991; Black 1992). But empirical support for the monitoring argument has never been strong. Investments by large investors tend to be persistent over time, seeming to provide support for management rather than posing a threat in the face of poor performance. And corporate expenses, such as CEO compensation, tend to be higher in the presence of block holder involvement (Mehran 1995).

The focus of this paper is to highlight a new and important area of corporate ownership research. With the accumulation of wealth managed by institutional investors, these institutions have acquired significant stakes in many firms that

TABLE 2. List of Industries Surveyed

Industry	Firms	Range 2007 to 2017	
		ROA (%)	Top 4 (%)
Mass Media	National mass media and news outlets: 90 percent of U.S. media outlets are owned by six corporations: Walt Disney (DIS), Time Warner (TWX), CBS Corporation (CBS), Viacom (VIAB), NBC Universal (CMCSA), and Rupert Murdoch's News Corporation (NWSA).	−4.9 to 9.4	11.8 to 14.2
Computer and Software Industry	Apple iOS and Google (GOOGL) Android dominate smartphone operating systems, while computer operating systems are overshadowed by Apple (AAPL) and Windows (MSFT).	10.1 to 19.8	11.2 to 14.3
Cellular Phone Services	Cell phone service providers that tend to dominate the industry are Verizon (VZ), Sprint (S), AT&T (T), and T-Mobile (TMUS).	−2.2 to 8.3	10.0 to 11.1
Insurance	Insurers, noted in Table 1, include: Metropolitan (MET), Prudential (PRU), Berkshire-Hathaway (BRK), All-State (ALL), and Progressive (PGR).	0.4 to 2.6	5.5 to 15.1
Banking	Banking service providers that dominate, by size, are JP Morgan-Chase (JPM), Bank of America (BAC), Wells Fargo (WFC), and Citigroup (C).	−0.2 to 1.0	10.7 to 14.2

Note: Reported in the column ROA (%) are the range of industry ROA over the period of 2007 to 2017. In the column Top 4 are the range of the percentage of industry equity that are owned by the named four institutions in the same period.

compete in the same industry. To the institutional investors and mutual fund holders, their best interest is in the overall performance of the industry rather than individual firms. Consistent with the direction of this new research path, we describe a growing literature which demonstrates the likelihood that common ownership has positive relationship with performance, both at firm and at industry level. With few exceptions, these studies have concentrated on the financial service sector. This study supplies a first look at five industries and suspects that the earlier results are likely more generally applicable. A question that remains after the empirical studies is whether the professional investors are better at selecting successful industries and firms, or if their presence on the board is helpful in influencing the behavior of multiple competitors to support industry performance.[6] The control and risk issues involved with common ownership deserve more and deeper research. Recent work by Azar and others has focused on the common ownership impact on a single characteristic of competition, such as the price of airline flights between two specific locations (Azar, Schmalz, and Tecu 2017). This study shows the mathematical linkages an institutional investor's desire to maximize the return to their portfolio clashes with value maximization goal of each firm in the industry. The mathematical and logical result is that industry value maximization serves the interest of the institutional investor and makes it likely that minority owners of a firm will be exploited. The common ownership phenomena are recent and the exercise of the associated power may not be entrenched, but the new incentive structure makes further study and the response of public policy important and urgent.

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[6]For example, the BlackRock CEO recently announced that his firm will take a more active role through proxy voting (Morrell 2018).

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Fear in the Workplace

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Abstract

This article seeks to acknowledge fear as a strong presence in the workforce by identifying from whence it comes. It further seeks to offer clarity on how individuals respond to fear in the workplace. For this research, a sample of 776 employees were posed 19 questions which were measured on a Likert-type scale. The questionnaire was developed by the authors in the absence of any such measurement tool which blatantly asks employees what makes them fearful in their place of work. Distributions of the sample covered entry level, supervisor level, manager level, and senior manager level. Results indicate that concerns over the opinion of their direct supervisor and the fear of being fired or laid off are the primary fears of employees. Further analysis indicates additional categories or clusters of fear. This research recommends that manager–subordinate relationships and communication must improve to foster an open environment which reduces the instances of fear.

INTRODUCTION

Organizations are at risk when they fail to successfully respond to the supply and demand requirements of their market; the ship hits an iceberg. The labor economist Albert O. Hirschman (2007) placed the disturbance of relationships at the center of his "Exit, Voice, Loyalty" theory of organization decline. His theory is centered on his belief that it is equally treacherous when the *loyalty* equation inside the organization is severely disturbed. Under such conditions, the crew abandons the ship. People *exit* by leaving to find less oppressive, more humane workplaces, or they stay but disengage. In either case, the organization loses a vital resource. Hirschman believed that it's by recognizing peoples' emotional disturbance and giving them a *voice*, that is, a chance to verbalize their concerns and emotions, that the breech is healed.

We will focus our attention on the sources of fear that people experience daily in their work lives. Noxious feelings are rarely spoken of in organizational settings. Self-disclosure is not the norm. We erect a false self in the interest of maintaining an acceptable image to others. In her 2012 book entitled, *The Alchemy of Fear: How to Break the Corporate Trance and Create Your Company's Future,* Kay Gilley described *fear* as a word that no one wants to acknowledge. She states,

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> In many organizations, talking about one's fears is tantamount to professing incompetence. Denial is rampant. People have learned to use words in ways that let them trick themselves into believing they aren't afraid. They usually come up with sound rational reasons and processes designed to restrict the free flow of information, which themselves grew from fear. (67)

In the current corporate world, fear is present almost everywhere. As our research addresses, it is related to critical factors related to our feeling of well-being: losing one's job, losing one's benefits, fear of failing, fear of speaking up, being injured emotionally or physically, feeling trapped and devalued.

With these ideas serving as a context for our research, we seek to deepen our understanding of this most challenging aspect of organization life.

PURPOSE OF THE RESEARCH

We will present the voice of more than seven hundred people as they respond to our research questions: "What do you fear at work?" and "How do you deal with the stress that is caused by your fear?" Our purpose is to make a contribution to the subject of fear in the workplace by taking advantage of access to small groups of people who were heterogeneous in terms of their personal and work profiles, but similar in their achievement motivation and career success in order to create a survey instrument that will identify the sources of fear in the workplace. Using this survey instrument, our intention is to delineate the frequency with which each source of fear is experienced and the ways that the respondents deal with their fear-related strain.

Our objective then is to answer three questions:

1. What are the categories and frequency of fear in the workplace?
2. Are there significant and meaningful differences found among respondents when we partition our sample by gender and management level?
3. What do people do to manage the fear-related strain they are experiencing at work?

Having provided these results, we will then propose suggestions that focus on a responsive approach to managers' disturbance-handler role.

RELATED LITERATURE

Personal control and environmental clarity are vital conditions for the management of every aspect of our lives. When we encounter a situation in which important needs are jeopardized, and we feel confident that we have the necessary personal or social resources to prevail, then the encounter is experienced as a manageable challenge. When, on the other hand, the challenge is unclear or if we are not sure that we are capable of handling it, instead of engaging, we focus on our fear. When this occurs, our need for support enters into the equation. Support can take two forms. The first is ego support. We marshal defensive strengths and adaptive strategies in order to protect the self from real or imagined dangers of failure. The second form of support is a reliance on social intervention by a trusted individual or group whose assistance assures us that we are not alone.

The Psychology of Fear

According to protection motivation theory (Rogers 1975) as well as the job demands-resources model of occupational strain (Baker and Demerouti 2007), a person's willingness to engage in managing a challenge that is perceived as a threat depends on its severity, one's sense of vulnerability, and one's belief that one is capable of enacting a response that will successfully reduce the threat. Cuddy, Fiske, and Glick (2008) have developed a body of social-psychological research that clearly demonstrates the influence of perceived threat on consequent behavior. As suggested by Richard Lazarus's (1966) cognitive mediational theory of emotion and stress, they find that there is an appraisal of, and a defensive reaction to, the threat potential of those who may influence their state of well-being and validation (Warr 2007). Insecurity-induced feelings of fear that are triggered by perceived threats to one's self incite the self-protective response of withdrawal, and the narrowing of both cognitive and interpersonal engagement. In both laboratory and field studies, researchers demonstrated that people make an instantaneous evaluation of the affect tone of the "other" as either warm or cold. In addition, they evaluate the competence of the "other" to do one harm. This determines their willingness to either approach, i.e., to engage in facilitating responses, or avoid, i.e., to engage in self-protective responses.

Somewhat similar psychological effects are addressed in the work of Fredrickson (2001), who found extensive evidence that negative feelings such as fear, anger, and anxiety trigger automatic defensive responses and a narrowing of one's thinking. Positive emotions such as joy, interest, contentment, and love produce optimal functioning in the moment and over the long term as well. Fredrickson provides extensive evidence that these feelings broaden a person's response flexibility in the moment and over the long term. Negative emotions produce what she calls *specific action tendencies*; that is, behaviors that are stereotyped and reactive allowing a quick response. When angry, the immediate response is to attack, when fearful, to run, and when revolted, to expel. The person's ideas about possible alternatives narrow to these. Positive emotions produce facilitating, approach behavior, whereas negative feelings produce avoidance, self-protection, and retaliation.

Fear and Engagement

This theme of psychological self-protection lies at the heart of William Kahn's (1992) qualitative "experience near" case studies of the employees of a summer camp and an architectural firm. Using observation, depth interviews, and questionnaires he was able to uncover a detailed understanding of the psychological antecedents of engagement and disengagement at work. From his point of view, engagement means that the person is willing to inhabit their work role whether it is a task or management role with what Kahn refers to as the person's preferred, authentic self. When engaged, the person is physically, cognitively, and emotionally involved in the task whether alone or with others. In addition, the person is empathically connected to others in service of the work that they are doing. When disengaged, the person is not there, they are not present; at most, they are just going through the motions or hiding behind a screen of subterfuge and meaningless activity. Kahn states that when disengaged, people become physi-

cally uninvolved in tasks, cognitively unvigilant, and emotionally disconnected from others. Whether or not a person invests in this way is related to the *meaningfulness* of their role, which they perceive as contributing to their feelings of esteem, efficacy, and legitimate contribution. The second factor is *psychological safety* and the third is *psychological availability*. When the climate of one's immediate work environment is safe, then the person is able to employ one's self by spontaneous expression of thoughts, feelings, and points of view without fear of negative consequences to esteem, status, or career.

Fear in the Workplace

Ashforth and Lee (1990) found that in work environments that are unsafe defensive behaviors such as avoiding action, blame, and change avoidance are commonplace, as well as ego defenses such as depersonalizing and self-monitoring. That feeling of safety is jeopardized when workers have reason to believe that their manager is not trustworthy. Mayer and Gavin (2005) investigated the relationship between employees' trust in the plant manager and the top management team with employees' in-role performance and organization citizenship behaviors (Organ, Podsakoff, and McKenzie 1997). They studied a total of 333 employees in eight manufacturing plants and the company headquarters by using a combination of focus groups and survey methodology. Citing Mayer, Davis, and Schoorman (1995), they defined trust as the willingness to be vulnerable to another party when that party cannot be controlled or monitored. Mayer and Gavin make the point that this definition recognizes the relationship between trust and risk, since risk is inherent in vulnerability. They state that trustworthiness comprises three factors: ability, benevolence, and integrity. If the manager is perceived as benevolent—that is, interested in the well-being of the subordinate, if the manager is also seen as a person who has the ability to offer assistance in the task or relationship domain of interest, and is seen as possessing integrity—then subordinates will feel safe enough in this relationship to expose their vulnerability. Their research showed that these three factors had strong correlations with trust in the managers, which in turn was significantly correlated with the employees' organization citizenship behaviors. Employees who had trustworthy managers were less likely to engage in self-protective defenses at work. For example, they were less likely to refrain from sharing information with their manager that might put the employee at risk, nor did they utilize the defensive tactic of closely monitoring their manager at the expense of focusing on their task. The day-to-day proximity of the manager whose operational decisions could immediately impact the subordinates' well-being produces a strong motivation to maintain a benevolent equilibrium in the relationship. In Mayer and Gavin's opinion, when the relationship lacks this type of clarity then the natural inclination is to monitor the manager. Time and energy spent by the employees either attempting to monitor the manager's actions or worrying about their actions distract the employees' attention from the work that needs to be done. It is obvious in this research that an open, honest, and caring relationship between the manager and the employees contributes to both a feeling of efficacy and clarity that drives fear out of the relationship. Dominance is replaced by a working alliance and trust. The authors conclude,

> They feel safe enough in their relationship with their manager to share negative information. Mistakes and missteps do not have to be hidden. Without feeling the need to defensively monitor their manager, they are free to focus more on the job at hand. (728)

In a three-year study of a restaurant chain, Davis, Schoorman, Mayer, and Tan (2000) investigated the relationship between employees' level of trust in the facilities general manager and several measures of organizational effectiveness. They found that restaurants in which the general manager garnered a higher level of trust from the workforce had significantly higher sales and higher profits in addition to having lower rates of employee turnover. An organization is a meta-system: A single entity defined by the sum of its parts. The glue that holds the diversity of the human organization together is the warmth and congeniality of its climate. When this is not the case, task and social cohesion is diminished as its members become more attentive to self-interest and self-protection. The consequence is disengagement. It is the daily positive task and relationship-oriented interaction with their employees that enhances the task and social cohesion of the workplace and defines the human side of a manager's responsibility (Holloway 2010).

RESEARCH METHOD AND RESULTS

While attending a graduate-level organizational behavior class as part of a master's degree program in management at one of the nation's most prestigious graduate schools, students participated in focus groups via virtual video conferencing in the spring and fall semesters in 2016. The topic for each group discussion was stated as: "What do you believe are the things that people who are in positions similar to your own fear and worry about at work?" There were 26 members in each group with an equal number of males and females. All were employed full-time in management, executive, and professional careers. The latter included medical and legal professionals who had management and executive responsibilities. The group discussion led to a consensus that 19 factors represent their experience of fear in their organizational lives. These 19 items formed a survey instrument that utilized a four-point Likert scale ranging from strongly agree (4) to strongly disagree (1) with an additional choice, "does not apply." Members of each class during the spring and fall semesters were asked to email the survey to people on their social media list with an explanation of the purpose and a guarantee of their anonymity. Seven hundred seventy six surveys were returned. Fifty two percent of the respondents were male and 48 percent were female. Ninety two percent had college, graduate, or professional degrees. The age range was from 25 to over 65 with 92 percent between 25 and 55 which are the prime employment years. Table 1 displays the percentages of the respondents who indicated either agree or strongly agree that a particular item was a source of work-related fear.

When one considers the venue which was the primary source of respondents for this study, their levels of academic and career accomplishments, and their maturity, these data are shocking and suggest at the outset that there are, for so many people, few protections from the psychological stress related to fear. In order to analyze the data, the nineteen items were a-priori clustered by the authors into the following categories: vulnerability, trapped, job insecurity,

TABLE 1. Percentage of All Respondents* Indicating Agree or Strongly Agree

Question	I Fear/Feel	Agree + Strongly Agree
1	Being fired	.36
2	Being laid off	.36
3	What my manager thinks of me	.68
4	Being scolded	.27
5	Loss of benefits	.27
6	Being publicly humiliated	.19
7	Being stuck trapped in my current job	.32
8	Uncomfortable taking vacation	.33
9	Uncomfortable taking sick days	.38
10	Physically unsafe	.04
11	Coworker mistrust	.36
12	Losing my benefits	.26
13	Being too old to find another job	.19
14	Not being appreciated	.49
15	Too ill to work; how would I be perceived	.30
16	Not being paid what I should be	.50
17	Terrorist attack	.09
18	Never being able to retire	.38
19	Loss of control, temper outburst	.14

* N respondents = 776; N responses = 1024

safety, social and ego consequences. The total item agreement (i.e., agree and strongly agree) percentages for each gender × management level category in the total respondent sample were calculated. Non-manager entry-level respondents were included for the sake of comparison. In addition, the significance of the difference of the average response for gender × management respondent category was calculated. The alpha level utilized was .05. See Table 2 on page 66.

Seven items reflect the respondents' concern regarding needs are a part of what is called the self-system of one's personality. This is what we mean by vulnerability. We suffer emotional distress, and disturbance of our feelings of well-being and validation (Warr 2007) when, in our social relationships with significant others, we experience disregard, humiliation, disapproval, or injustice. The consequence is a self-wound no less painful at times than one that is physical. To protect our self from harm, either real or imagined, the protector portion of the personality, the ego utilizes defense mechanisms to ward off the threat, or plans and enacts means of attack or escape. In addition, our weakened self-esteem heightens our fear of failure and diminishes our efficacy and resilience. It also diminishes our empathic availability and response to others. Relationships become more cautious rather than sources of mutually satisfying engagement and exchange. When, on the other hand, we experience the opposite—when we receive positive "self-related" supplies, when the significant others, by word or deed endorse our true self, accept our uniqueness, when we experience fair treatment and respect, when we feel accepted with all of our nuanced strengths and

TABLE 2. Vulnerability

Gender × Management Level Comparisons of Total Agreement (Agree + Strongly Agree) and Significance Test of Level of Response

	Entry		Supervisor		Middle Manager		Senior Manager	
	Female N = 109	Male N = 82	Female N = 63	Male N =70	Female N = 144	Male N = 172	Female N = 51	Male N = 89
What my manager thinks of me	.83* 3.04** .74***	.71 2.88 .91	.77 2.92 .70	.68 2.72 .92	.73 2.87 .81	.65 2.73 .92	.49 2.36 1.05	.58 1.99 .85
	t = 1.25	*p* = .21	*t* = 1.39	*p* = .16	*t* = 1.41	*p* = .15	*t* = 2.27	*p* = .02
Not being paid what I should be	.54 2.69 .95	.66 2.70 .98	.65 2.79 .94	.51 2.58 .98	.65 2.45 .94	.46 2.36 .90	.51 2.46 1.01	.34 2.19 .96
	t = .07	*p* = .94	*t* = 1.25	*p* = .21	*t* = .82	*p* = .41	*t* = 1.57	*p* = .11
Not being appreciated	.50 2.55 .93	.49 2.70 .98	.57 2.62 .81	.50 2.42 .95	.74 2.43 .87	.44 2.35 .84	.47 2.29 .99	.36 2.19 .87
	t = 1.07	*p* = .28	*t* = 1.29	*p* = .19	*t* = .83	*p* = .40	*t* = .61	*p* = .53
Being scolded/ reprimanded	.48 2.47 .90	.48 2.42 .96	.27 2.19 .80	.30 2.09 .86	.58 2.28 .84	.26 2.05 .88	.31 2.04 1.01	.24 1.99 .85
	t = .36	*p* = .71	*t* = .69	*p* = .49	*t* = 2.36	*p* = .01	*t* = .31	*p* = .75
Too ill to work. How would I be perceived	.35 2.16 .96	.29 2.02 .98	.27 2.02 .89	.23 2.58 .81	.26 1.96 .93	.18 1.82 .81	.45 2.04 .99	.17 1.82 .80
	t = .98	*p* = .32	*t* = .20	*p* = .83	*t* = 1.43	*p* = .15	*t* = 1.43	*p* = .15
Publicly humiliated	.27 1.99 .87	.24 1.95 .90	.31 1.95 .90	.13 1.70 .80	.14 1.72 .78	.15 1.73 .84	.25 1.96 .90	.21 1.76 .84
	t = .31	*p* = .75	*t* = 1.69	*p* = .09	*t* = .19	*p* = .91	*t* = 1.32	*p* = .18
Viewed as too old to do the job	.05 1.50 .59	.16 1.66 .85	.13 1.64 .82	.06 1.51 .61	.08 1.51 .70	.05 1.50 .61	.16 1.67 .80	.11 1.47 .76
	t = 1.53	*p* = .12	*t* = 1.04	*p* = .29	*t* = .00	*p* = 1.0	*t* = 1.47	*p* = .14

* The percentage of respondents who chose response level: (3) agree or (4) strongly agree.

** The weighted average response on the four point Likert Scale where 4 = strongly agree and 1 = strongly disagree.

*** The standard deviation for each group response distribution.

weaknesses but valued in our wholeness—then, far from defensive withdrawal, we are strengthened by the congeniality of the relationship. In sum, the self is enhanced rather than diminished.

As we see in these results, a shockingly high percentage of people across all management levels report fear of their boss's evaluation, and devaluation by not receiving what they consider fair treatment regarding their pay and lack of appreciation for their contributions. Twenty-four "level of agreement" comparisons yielded only two statistically different results: At the senior manager level,

statistically significant gender differences were found for, "What my manager thinks of me." But while these are significantly different, the remarkably high percentages for both (female .49 and male .58) suggest to us that the meaningfulness in this case trumps statistical significance. The dominance of this factor across all categories is an exceptionally impactful piece of information. As previously considered, trust is essential in any professional relationship. Without it, willingness to authentically engage and open, frank communication is lost. At the middle-manager level, statistically significant differences were found for "Being scolded and reprimanded." Scolding another person is more appropriate perhaps for a parent–child relationship, but between professional adults it is particularly disconcerting. It is shocking that more than half of the women who are middle managers experience this type of hostility and that it is twice the level reported by their male counterparts. When this is coupled with the frequencies that women in middle-management positions report their fear of what their managers think of them (.73), lack of appreciation (.74), and not being paid what they should be (.65), each of which is greater than their male counterparts, then the conclusion naturally follows the their day-to-day work environments are particularly challenging. See Table 3.

TABLE 3. Trapped

Gender × Management Level Comparisons of Total Agreement (Agree + Strongly Agree) and Significance Test of Level of Response

	Entry Level		Supervisor		Manager		Senior Manager	
	Female	Male	Female	Male	Female	Male	Female	Male
	N = 109	N = 82	N = 63	N = 70	N = 144	N = 172	N = 51	N = 82
Never being able to retire	.34	.37	.33	.36	.21	.40	.44	.43
	2.16	2.16	2.11	2.19	2.07	2.17	2.34	2.27
	.98	.99	.90	1.00	.94	.96	1.08	.94
	t = .00 *p* = 1.00		*t* = .48 *p* = .62		*t* = .93 *p* = .35		*t* = .40 *p* = .68	
Uncomfortable taking sick days	.47	.44	.41	.42	.34	.33	.31	.32
	2.42	2.37	2.22	2.34	2.09	2.15	2.06	2.06
	.95	.99	1.03	1.00	.92	.98	1.09	.95
	t = .35 *p* = .72		*t* = .68 *p* = .49		*t* = .55 *p* = .57		*t* = .00 *p* = 1.00	
Uncomfortable taking vacation	.35	.27	.28	.37	.28	.36	.27	.43
	2.20	2.09	2.05	2.30	1.98	2.12	1.94	2.24
	.93	1.02	.94	i.03	.85	.97	1.08	1.01
	t = .77 *p* = .43		*t* = 1.46 *p* = .14		*t* = 1.35 *p* = .17		*t* = 1.62 *p* = .10	
Being stuck, feeling trapped in my current job	.48	.48	.43	.40	.41	.40	.35	.30
	2.20	2.52	2.45	2.40	2.24	2.23	2.12	1.94
	.93	1.04	.90	.99	.94	1.01	1.18	1.03
	t = 2.23 *p* = .02		*t* = .30 *p* = .76		*t* = .09 *p* = .90		*t* = 1.62 *p* = .10	
Being too old to find another job	.08	.11	.22	.16	.18	.16	.19	.13
	1.50	1.59	.74	1.67	1.71	1.73	1.80	1.83
	.68	.80	.92	.78	.91	.89	1.03	.91
	t = .65 *p* = .51		*t* = .47 *p* = .63		*t* = .84 *p* = .84		*t* = .17 *p* = .85	

Only one of the twenty gender × management "response level" comparisons was found to be statistically significant at the .05 level. Entry-level males and females differed on their response to: "Being stuck, feeling trapped in my current job." Each of these items reflect a threat to a person's capacity to respond to their evolving personal needs. The results suggest that high levels of job frustration exists at all management levels. Autonomy has been studied as a significant source of intrinsic motivation and self-determination at work (Deci and Ryan 2008). No doubt this affects levels of engagement and job motivation. Whether real or imagined, restraint—that is the consequence of feeling a diminished capacity or due to a fear of the consequences imposed from without—throughout the lifespan, strikes at the fundamental human need for clarity, efficacy, and self-determination. Anxiety, grief, and despair result from the belief that our life is not in our own hands. The necessary adaptation to the will of others diminishes the power of the self to act in its own interest.

From late adolescence through the later stages of adulthood, the acquisition and protection of a work-related identity in addition to the feelings of competence and mastery that job maturity provides are significant life values. The years of energetic investment required to achieve career comfort makes one's job feel like a possession; one that is expected to evolve in a way that is consistent with the growing maturity of its owner. See Table 4.

Two of the twelve job security comparisons were found to be significant. For supervisors it was, "Being fired" and for senior managers it was, "Losing my benefits." Job insecurity, whether it stems from a concern regarding the continued existence of a job position or the fear that one's tenure in the position is in doubt, has been found to be a source of significant personal life distress. According to DeWitte (1999), such distress is related to emotional exhaustion and depression. Living with prolonged doubt in this regard could be especially daunting for those who, because of their age or lack of training and experience,

TABLE 4. Job Insecurity

Gender x Management Level Comparisons of Total Agreement (Agree + Strongly Agree) and Significance Test of Level of Response

	Entry		Supervisor		Manager		Senior Manager	
	Female N = 109	Male N = 82	Female N = 63	Male N = 70	Female N = 144	Male N = 172	Female N = 51	Male N = 82
Being laid off	.36 2.17 .90	.37 2.14 .90	.26 1.83 .77	.36 2.19 .88	.35 2.14 .99	.39 2.17 .97	.27 2.02 1.13	.29 1.96 .92
	t = .22	*p* = .81	*t* = 2.47	*p* =.01	*t* = .27	*p* = .78	*t* = .34	*p* = .73
Being fired	.37 2.21 .88	.39 2.14 .92	.21 1.90 .77	.36 2.18 .86	.38 2.13 .97	.34 2.10 .93	.27 2.04 1.09	.33 2.06 .92
	t = .53	*p* = .59	*t* = 1.97	*p* = .05	*t* = .28	*p* = .77	*t* = .11	*p* = .90
Loss of benefits	.22 1.98 .90	.28 1.96 .96	.17 1.87 .88	.26 1.94 .94	.26 2.01 .95	.16 2.05 .96	.37 1.90 1.06	.22 1.82 .89
	t = .14	*p* = .88	*t* = .44	*p* = .65	*t* = .37	*p* = .70	*t* = .47	*p* = .63

feel inadequately prepared to undertake new occupational challenges. According to Jahoda (1958) lack of clarity or prolonged occupational uncertainty is similar to the unrelenting vigilance and tension one would feel if they thought that a "wolf was circling the campfire" (71). Job related uncertainty leads to feelings of unpredictability and uncontrollability. Both have significant stress consequences. Not knowing what the future holds, the person does not know what steps to take to manage the threat. See Table 5.

Two of the eight safety comparisons were found to be significant. For entry-level employees and senior managers it was: "Feeling physically unsafe." Since the terrorist attacks on 9/11 in which thousands of people who were at work lost their lives, it isn't surprising that concerns regarding this type of fear would be considered important. In addition, even though the men and women in this study, for the most part, are in jobs that do not require working with machines or working with dangerous materials, fear-related distractions or age may incite stress-related safety concern. See Table 6 on page 70.

In the social and ego consequences category only one of the eight gender × management level comparison was found to be a statistically significant difference: Entry level: "Loss of control, temper outburst." When the climate of an organization incites fear because of its lack of clarity, control, and support, there are maladaptive defensive responses that cause a group member to seek refuge by withdrawing from open and authentic exchange with others and defensive displacement and projection of noxious feelings onto others (Table 6). The consequence is a climate in which scapegoating and mistrust color interactions and passive aggression and doubt become barriers to productive group engagement. When people feel that the organization fails in providing a just playing field, then their willingness to engage as mature, conscientious citizens is diminished (Organ, Podsakoff, and McKenzie 1997).

While it may be the case that each of the items in this list may be a function of dispositional factors of one's personality, only 8 of the 74 *t*-tests yielded significant results. The levels of commonality of the responses suggest a dominating environmental influence. It's important to recognize that, as is the case with burnout (Freudenberger and Richelson 1981), the unremitting necessity to

TABLE 5. Safety

Gender × Management Level Comparisons of Total Agreement (Agree + Strongly Agree) and Significance Test of Level of Response

	Entry		Supervisor		Manager		Senior Manager	
	Female N = 109	Male N = 82	Female N = 63	Male N = 70	Female N = 144	Male N = 172	Female N = 51	Male N = 82
Terrorist attack	.07	.10	.10	.11	.07	.10	.07	.10
	1.57	1.44	1.47	1.60	1.49	1.51	1.57	1.44
	.69	.78	.76	.78	.70	.78	.69	.78
	t = 1.21 *p* = .22		*t* = .97 *p* = .33		*t* = .23 *p* = .81		*t* = .97 *p* = .33	
Feeling physically unsafe	.04	.07	.06	.06	.02	.03	.01	.03
	2.22	1.37	1.35	1.46	1.24	1.23	2.22	1.37
	.53	.70	.66	.70	.51	.49	.53	.70
	t = 9.5 *p* = .0001		*t* = .93 *p* = .35		*t* = .17 *p* = .85		*t* = 6.62 *p* =.0001	

TABLE 6. Social and Ego Consequences

Gender × Management Level Comparisons of Total Agreement (Agree + Strongly Agree) and Significance Test of Level of Response

	Entry		Supervisor		Manager		Senior Manager	
	Female N = 109	Male N = 82	Female N = 63	Male N = 70	Female N = 144	Male N = 172	Female N = 51	Male N = 82
Coworker mistrust	.31 2.28 .83	.31 2.23 .88	.28 2.16 .85	.34 2.24 .70	.39 2.29 .80	.39 2.22 .76	.39 2.18 .92	.36 2.18 .81
	$t = .40$	$p = .68$	$t = .59$	$p = .55$	$t = .79$	$p = .42$	$t = .00$	$p = 1.00$
Loss of control, temper outburst	.16 2.16 .98	.18 1.80 .83	.13 1.52 .76	.14 1.78 .82	.12 1.64 .73	.35 1.74 .77	.23 1.78 .91	.13 1.62 .74
	$t = 2.68$	$p = .008$	$t = 1.89$	$p = .06$	$t = 1.17$	$p = .24$	$t = 1.21$	$p = .22$

suppress strong feelings of fear and insecurity and the need to maintain a false self behind which one's true feelings remain felt but unexpressed places a significant strain on one's ego defenses which, over time, may no longer be able to withstand the psychological strain. The loss of control and breakdown of social connection may be measures of the consequence of the fear experience.

When asked to describe the methods that they used to deal with their stress at work, 572 respondents (74 percent) offered a total of 1046 responses which means that many people in our sample use multiple methods. We categorized the methods as shown in Table 7.

These data indicate that the vast majority of our respondents do not seek opportunities for clarity or support in their relationships with their coworkers or their managers. Choosing to disengage rather than addressing the problem may contribute to the large numbers of men and women at every level who feel a lack of control of their well-being in their work roles. The respondents find that, more often than not, it is better to get out of the foxhole and retreat for R and R through meditation, social comforting, and exercise. Defensive withdrawal

TABLE 7. Fear-Related Stress Management Methods

Method	Frequency	Percent
Exercise: Running, gym, sports	342	.49
Calming: Relaxation techniques, meditation yoga, prayer	189	.27
Problem management: Voicing concerns to friends, coworkers, family, therapist	64	.09
Problem management: Voicing concerns to manager	15	.02
Problem management: Cognitive adjustment: time management, listing, positive thinking, retraining, priorities setting	107	.15
Problem disengagement: Spending quality time with family, friends, spouse, children	56	.08
Problem disengagement: Spending time involved with hobbies, music, TV, reading, vacation	206	.30
Medication and self-medication: Prescription drugs, alcohol, tobacco	30	.04
Nutrition: Healthy eating, vitamins, adequate sleep	37	.05

from the emotional battlefield is the method of choice. Two additional things are worthy of note. First, the number of deleterious incidents of alcohol and tobacco use is quite small, and there is a strong sense of self-reliance that emerges.

DISCUSSION

If one were to assign weights to each of the causes of fear in our survey, then by virtue of the commonality of the experience across management level and gender the results are quite shocking with regard to feelings of vulnerability, feeling trapped, and destitute of life control. Three to five out of ten of the men and women in our sample are feeling that they cannot trust their managers, that they are feeling trapped in their jobs, and indeed that their jobs may be lost. Our results have documented the dark shadow of fear and insecurity that is part of the organization landscape for many people. From the point of view of the risk of organizational decline described by Hirschman, there are potentially ominous consequences in these data.

We also conclude that, since our sample comes from a group of people whom we have reason to believe are dedicated and successful in their careers, then they could very well have a level of ego strength to manage the situation by accepting the realities of their organization lives, weathering its challenges, and moving on. Whether or not this is the case requires much additional investigation. But we do have some indication that this may be true given the relatively small number of respondents who report that they fear losing control, and the very small number of respondents who seek relief by means of self-medication. They are remaining afloat, but we are sure they would welcome any assistance available to manage the storms.

Our third conclusion is that, at every organizational level, a glaring deficit exists in manager–subordinate relationships. A very small number of respondents report that they take their manager into their confidence regarding the issues that they face, relying instead on finding ways outside their work environment to detach, distance, and resupply themselves.

We have spent many years working closely with managers and believe that the cause is not the loss of humane character and virtue of people in this profession. As is seen in the data, one's management level offers no protection from these sources of fear. Instead, we point out that when Abraham Maslow (1943) described safety and security needs he said that the average person's membership in large organizations assured that these needs for the most part are fulfilled. Our data clearly shows that today, this is not the case. We also make note that the manager's disturbance-handler role described by Henry Mintzberg (1973) referred to responding to the subordinates' need for assistance in getting work-process disruptions back on track. This suggests that at that time, intervention in task-related disturbance was the norm.

The world has changed. Our work speaks directly to the change described by Kahn (2001) in his discussion of the replacement of the psychological contract with an entrepreneurial contract between organization members and their organization. He states,

> Under the terms of this contract, individuals may receive large pay-offs but at the cost of an organization provided sense of security, this refers not

> just to job security but to psychological security as well. In the increasingly "boundary less organization" members are not only no longer sure of their tenure but no longer know precisely what to do, who to do it with, and how it ought to be done. (341)

He goes on to say that the decreasing sense of security from hierarchical systems increases pressure on coworkers to provide social support in the form of emotional (enabling others to feel cared for), instrumental (directly helping others), informational (providing information so others can cope with problems), and appraisal (providing information enabling others to evaluate themselves). He concludes that we need to understand whether people's inevitable needs for security can be met in the context of under-bounded organizations, particularly those marked by mistrust and isolation.

Everything that we have presented thus far suggests that intervention is now a critical element of a manager's disturbance-handler role. By *intervention* we mean that managers and coworkers alike recognize that there are painful aspects of their organization experience and that they don't have to live alone. By utilizing training, managers can be empowered to engage the men and women whom they work with in meaningful discussions regarding their fears at work and thereby enhance their employees' freedom of self-expression as well as self- and social acceptance; replacing feelings of separation with the feelings of bonding and alliance.

The importance of training officers as a means of enhancing unit cohesion has been an important aspect of military psychiatry. There is a strong commitment to training officers to meet their soldiers' needs in this way (Manning 2017). The Eisenhower Leadership Program at West Point offers senior officers who must lead their combat units in dangerous settings in-depth training in counseling intervention skills in order to help them carefully attend to their soldiers' emotional concerns in the combat theater. The purpose is to enhance the officers' ability to recognize signs of emotional distress and to train them to intervene at an emotional level by teaching them, through role playing and supervised practice, active listening methods of counseling. These officers are managing in emotional climates that are beyond their control. By no means is the modern organization's climate like that of a battle zone, but as we have seen, the climate of fear is pervasive.

Difficult conversations in the workplace address issues that attend the fears that we have described. The most precious resource that a manager has is his or her time. When managers recognize the emotional challenges that their people face and are willing to take the time to be fully present with and for them, then trusting relationships are built that can replace the climate of fear with a climate of trust and safety. It is management time very well spent.

A FINAL THOUGHT

It is well within the capability of all of us regardless of our title, position, or expertise, to befriend others. When William Kahn (1992) wrote about creating psychologically safe work environments, he offered the following quotation:

> Good friends strengthen and diversify our ego-functioning: they produce

> speculations, explanations, and suggestions of their own for us to consider, and much else. In times of crisis they are especially important, sustaining us while we encounter and explore new things, encouraging us to carry on, holding us when we temporarily lose our footing in the stress of reorganizing our concepts. They take care of us and step in when, in the course of the temporary disorganization that new developments may bring, we are about to do something permanently detrimental to our interests. (Klein 1987, 387)

While we are rendering unto Caesar, perhaps it's a good idea to keep in mind that God is watching.

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Corporate Treatment of Veterans as an ESG Factor and a Potential Source of Incremental Returns

Herbert D. Blank

Abstract

There are significant social and psychological differences between military veterans and nonveterans (Hicks, Weiss, Coll, and McDonald 2017). Thus, at the corporate level the influx and persistence of veterans within firms influences both the employers' current and future performance. The systematic study of the impact of these influences is just beginning (Atuel et al. 2017). This study posits that the hiring and training of veterans is both consistent with a firm's corporate and social responsibility (CSR) objectives, and a source of economic value to the firm. The study proposes the following: Investors, both active and passive, integrate environmental, social, and governance (ESG) criteria as a barometer to measure the degree to which capital deployment supports a long-term return that is not only forecastable, but sustainable. Investor relations professionals, management teams, and boards should continue to understand the influence ESG maintains over cost of capital. Price multiple appreciation is strongly correlated to an increase in the return on invested capital (ROIC) over the cost of capital if a corporate team can provide the investment community with a clearly defined long-term cost of capital. Effective messaging now requires the incorporation of ESG, not simply to earn goodwill from external stakeholders, but to optimize valuation. This study examines how this corporate messaging also applies to social key performance indicators (KPIs) related to programs for military veterans. To date, none of the major ESG data providers have included military-related KPIs in their core offerings. The findings indicate that ESG data providers and their clients may be overlooking important positive indicators relating to management quality and potential incremental returns.

THE BENEFITS OF U.S. MILITARY VETERANS TO CORPORATIONS

As a nation that fought its way to freedom, encouraging enlistment by offering benefits to veterans has been part of U.S. culture (Meglesh 2017). Since its inception, the U.S. government and society have provided veterans benefits and

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encouraged post-service employment (see Appendix A for a timeline of veterans' employment initiatives).

Starting with World War I and in most of the decades since, tangible steps have been taken by the U.S. government to strengthen the legal rights for veterans to return to their jobs. Furthermore, other laws have promoted new hiring of veterans with the establishment of new agencies and departments to provide training and rehabilitation benefits (Ruh, Spicer, and Vaughan 2009; Greengard 2012). In addition to governmental action, a steady stream of non-governmental organizations (NGOs) have been established during the past 130 years to augment government efforts to go beyond legislation to help veterans rejoin the civilian workforce and prosper. A partial listing of these NGOs is provided in Appendix B.

While the slogan, "Don't forget. Hire the vet" gained prominence in the 1960s, the sentiment behind it has reflected the general support of veterans by the civilian population throughout most of U.S. history. This sentiment, however, ebbed most noticeably during the 1970s amid and in the aftermath of the unpopular Vietnam War (Cohary 1990). Popular support surged again in the 1980s and has remained strong. However, popular sentiment alone is not sufficient to transition veterans from military to civilian employment. Unlike veterans of World War II, today's U.S. veterans face challenges in gaining and maintaining civilian employment (Stone and Stone 2015; Gabriel 2017; Vick and Fontanella 2017). The analysis of Faberman and Foster (2013) concludes that the extended deployments, which began around 2002 (and continue today), are hampering the participation of veterans in the civilian workforce, even though the reasons are not clear from the analysis. It is therefore appropriate that corporations, many of them household names, regard positive treatment and accommodation of military veterans as a central theme in their CSR thinking. In this era of CSR reports and dedicated responsibility sections on corporate websites, most major corporations in the United States (e.g., Amazon, AEP, Cisco, Humana, IBM, JP Morgan Chase, Prudential, and WalMart) highlight their employment policies and achievements concerning employing and training military veterans. This ongoing commitment toward military veterans is prominently illustrated by their inclusion in corporate diversity programs and reports. While the literature has not yet formalized the link between employing military veterans and CSR, it is evident from the strength of the public-private coalition that is mobilized to transition veterans to civilian employment that the majority of corporations in the United States consider the hiring and training of veterans as a key CSR goal.

That said, implementing a hiring program aimed at military veterans is not easy. Both published studies (for example Hicks, Weiss, Coll, and McDonald 2017; Davis and Minnis 2017; Stone and Stone 2015) and anecdotal evidece (Moran 2011; Citroën 2018) report challenges in establishing military veteran hiring programs in firms, despite firms professing keen interest in doing so. A commonly reported refrain is that human resources professionals find it difficult to relate to, or understand the vernacular of, applicants who are veterans as well as the many talents that veterans bring to the workforce. It is noteworthy that with an appropriate selection process, competitively employed disabled veterans can also enjoy employment stability (Dillahunt-Aspillaga et al. 2018). Another reported obstacle raised by program advocates is the lack of generally accepted firm-specific metrics to support advocacy for the hiring of veterans within the firm.

Evan Guzman, head of marketing and strategic partnerships at Veterati, contends that when an employer hires a veteran, it receives a new set of skills, experience, and job training unmatched in the civilian sector. He argues that human resources should find a way to modify their metrics to account for an expected return on military experience. To the extent that a study of veterans' employment by the federal service can be applied to the private sector, there may be cause for optimism in this regard. After controlling for common traits such as age, race, gender, health, and education, Johnson (2014) finds that veterans hired by the U.S. federal service advance in their careers faster than, or at least at the same rate as, non-veterans.

There are also research studies that support the case that military veterans enhance a firm's talent pool and endow it with tangible leadership skills, especially during a crisis. The personal dimensions associated with leadership are well-investigated and profiled. A study of combat-decorated veterans by Wansink, Payne, and von Ittersum (2008) concludes that these heroes possess a profile similar to that associated with transformational leaders. Veterans, regardless of whether they have been decorated for valor in combat, still bring to their civilian employers distinctive cababilites that go beyond techical cababilites. The soft skills of veterans include flexibility in decision-making, grit, attention to detail, and enterpreurship bounded within the firm's framework (Short, Zachary, and Ketchen 2018; Davis and Minnis 2017). It is not surprising, therefore, that studies of military veterans' tenures as chief executive officers (CEOs) show tangible benefits of superior management. A Korn/Ferry International (2005) study found that CEOs with a military background are more likely to deliver strong performance, and that CEOs who served in the military stayed longer on the job, likely due to their market-beating performance. These CEOs boast a median tenure of 5 years and an average tenure of 7.2 years, compared to 4 years and 4.5 years for all S&P 500 CEOs. The correlation between military service and executive performance is the most notable finding reported by Korn/Ferry. Their study demonstrates that the leadership skills learned in military training enhance success in corporate life. The CEOs interviewed reveal six leadership traits that have served them exceptionally well in the boardroom:

1. Learning how to work as part of a team
2. Planning and effective use of resources
3. Good communication skills
4. Defining a clear goal and motivating others to pursue it
5. A highly developed sense of ethics
6. The ability to remain calm under pressure

The Korn/Ferry findings were supported and expanded by Benmelech and Frydman (2015) who examined the transferability of military training and skills into corporate leadership success. The study analyzed data on U.S. publicly traded companies from 1980 through 2006. It concluded that CEOs with military experience perform better under pressure and are much less likely to commit corporate fraud.

The researchers also found that the equities of these companies held up significantly better than the market during times of financial stress. "In an industry

that is going through a decline or some distress, we find that those firms that are run by CEOs with military experience perform better than other CEOs," Benmelech and Frydman (2015) state. They assert that CEOs who are military veterans perform better under pressure perhaps because "… service in the military may prepare one to make tough decisions and show leadership in tough times."

KEY PERFORMANCE INDICATORS FOR CORPORATE TREATMENT OF MILITARY VETERANS

For corporate treatment of military veterans to be considered for integration into an ESG framework, measurable key performance indicators (KPIs) must be identified and tested. The most logical places to begin are websites that collect and use such data. There are three websites dedicated to military and veterans' issues (MilitaryTimes.com, Monster.com, and Militaryfriendly.com) that have different annual published lists of firms cited for being among the best places for veterans to work. The preparation of each list is based upon a different methodology. The methodologies are briefly explained below.

The Military Times site uses a survey of employers to determine among them the "Best for Vets Employers." More than 2,300 organizations across the country were invited to participate in 2018 in this annual survey of 90 questions. Out of those responding to the survey, just 100 firms were selected to appear on the 2018 list of the best employers for veterans. The survey is conducted annually, is rigorously detailed, and includes data falling into a number of key categories. Examples of these categories include the percentage of new and existing employees in the firm with military experience, the firm's policies that govern the recruitment of veterans, their transition and assimilation into the firm (onboarding), the firm's continuing support for the hired veterans and their spouses, and how the firms accommodated employment of those veterans in the reserve (Gross 2018).

The Monster.com site methodology begins with nominations from a panel of hiring experts. Information on how the experts are selected or how many companies are nominated by each expert is not disclosed. The attributes on which selection is made, however, are selected in cooperation with Military.com (which is a subsidiary of Monster Worldwide, the corporate entity maintaining the Monster.com side). The methodology is self-reported to consider each company's veteran hiring, onboarding, and retention practices (Monster.com 2018).

The Militaryfriendly.com site assesses employer ratings through the evaluation of both public data about firms and other organizations and proprietary data gathered through a survey. To be included in the site's list an organization must successfully complete the Military Friendly® Employers' portion of the site's survey and meet at least three of nine criteria (in three broad categories) that relate to veteran employment (Military Friendly 2018).

Of interest, in 2017 the corporate entity that maintains this site signed a consent decree and settled charges brought by the Federal Trade Commission that it accepted money from schools that wanted to be included in searches for "military friendly" schools without disclosing that fact. However, there is no evidence that the website's objective metric categories (veterans' retention, turnover, and promotion rate) were compromised.

Although there are trade-offs between the three methodologies summarized above, their major areas of focus have considerable overlap and reach

a general consensus on key areas. The Military Times methodology, however, generates the most granular data from respondents. The data are important, but as a demonstration of corporate engagement, so too is the willingness of a firm to provide so many details.

Proponents of integrating environmental, social, and governance (ESG) criteria into the investment process, especially for investors with long-term goals, often cite firms' ESG scores as metrics of management quality. The premise is that management teams that are proactive, as opposed to reactive, on issues concerning the environment, human capital, community citizenship, and corporate governance will be best able to navigate future challenges. Perhaps this is why the methodology employed by the Military Times was translated into a tradable investment index by VETS Indexes.

VETS INDEXES: MEASURING THE PERFORMANCE OF PUBLICLY TRADED BEST-FOR-VETS COMPANIES

VETS Indexes is an independent provider of custom indexes. The company specializes in constructing and disseminating thematic impact indexes for investors, exchanges, and asset managers to use as underlying portfolios for financial products. At the core of the VETS Indexes is a belief that the mission critical mindset, unique skill sets, and specialized training that U.S. military veterans bring to the workplace are differentiating factors in an enterprise's overall performance. While the philosophy underpinning the construction of the index accepts that veterans' attributes are not the only driving force behind any firm's success, this philosophy is dedicated to the proposition that a firm which recognizes the hiring of veterans as a competitive advantage, and also that hiring veterans contributes to the social good, indicates superior corporate governance and management quality. The provider of the VETS Indexes signals its commitment to this proposition by donating between 5 and 20 percent of net profits to charitable organizations that support the wellness of military veterans and their families (VETS Indexes 2018).

Index Methodology

The objective of the Military Times Best for VETS Index—based on the Military Times Best for Vets: Employers Annual Ranking Survey—is to provide a social impact index focused on the employment and treatment of military veterans by publicly traded firms. The statistical data supporting this index is in Appendix D and all subsequent references to this index will be *MT Best for VETS Index*. The construction, maintenance, and rebalancing of the index are intuitive. The constituents in the index are equally weighted, rebalanced quarterly, and reconstituted annually after the close of trading on the third Friday of September. Companies that are acquired or otherwise cease to trade on a U.S. exchange are removed from the index without replacement and their weight in the index at time of removal is equally apportioned to the remaining constituents.

Testing Methodology

This study examines the performance of the the MT Best for VETS Index from December 31, 2012 through October 31, 2018. The study uses monthly total re-

turn data for the MT Best for VETS Index and compares it against the following four benchmark indexes: The Thomson Reuters/S-Network ESG Best Practices Index, the S&P 500 Index, the equal-weighted version of the S&P 500 Index, and the FTSE Russell 3000 Index.

The Thomson Reuters/S-Network ESG Best Practices Indices are a suite of indices designed to provide a benchmark of companies exhibiting best corporate social responsibility practices as measured by their superior ratings in the Thomson Reuters/S-Network ESG Best Practices Ratings schema. The ratings rank the constituent companies on environmental, social, and governance performance based upon more than 200 underlying KPIs. The ratings are normalized so that 50 is the mean ESG score and the standard deviation is 18. The indices represent a comprehensive benchmarking system for CSR investors (Blank, Sgambati, and Truelson 2016).

The S&P 500 Index is the market-cap weighted index standard for large cap core equities in the United Sates.

As the name indicates, the equal-weighted S&P 500 Index equally weights the same constituents in the S&P 500. It was specifically created to serve as the benchmark for what is now the Invesco S&P 500 Equal Weight ETF with the ticker symbol RSP. It is reconstituted and rebalanced quarterly.

The market-cap weighted FTSE Russell 3000 Index contains the largest 3000 companies domiciled in the United States. It is reconstituted annually in the middle of the calendar year and no replacements are made in the Russell between reconstitutions for stocks that are acquired or otherwise cease trading. In all cases, monthly total returns were used in the calculations.

The use of the Thomson Reuters/S-Network Index provides a comparison of the MT Best for VETS Index with a traditional SRI/ESG index. The S&P 500 Index and the Russell 3000 represent traditional benchmark choices. Notice that several of the firms in the MT Best for VETS Index are not included in the S&P 500 while some are included in the much broader Russell. The equal-weighted S&P 500 index is used (even though not all the firms in the MT Best for VETS Index are in the S&P 500) since the MT Best for VETS Index is also equally weighted.

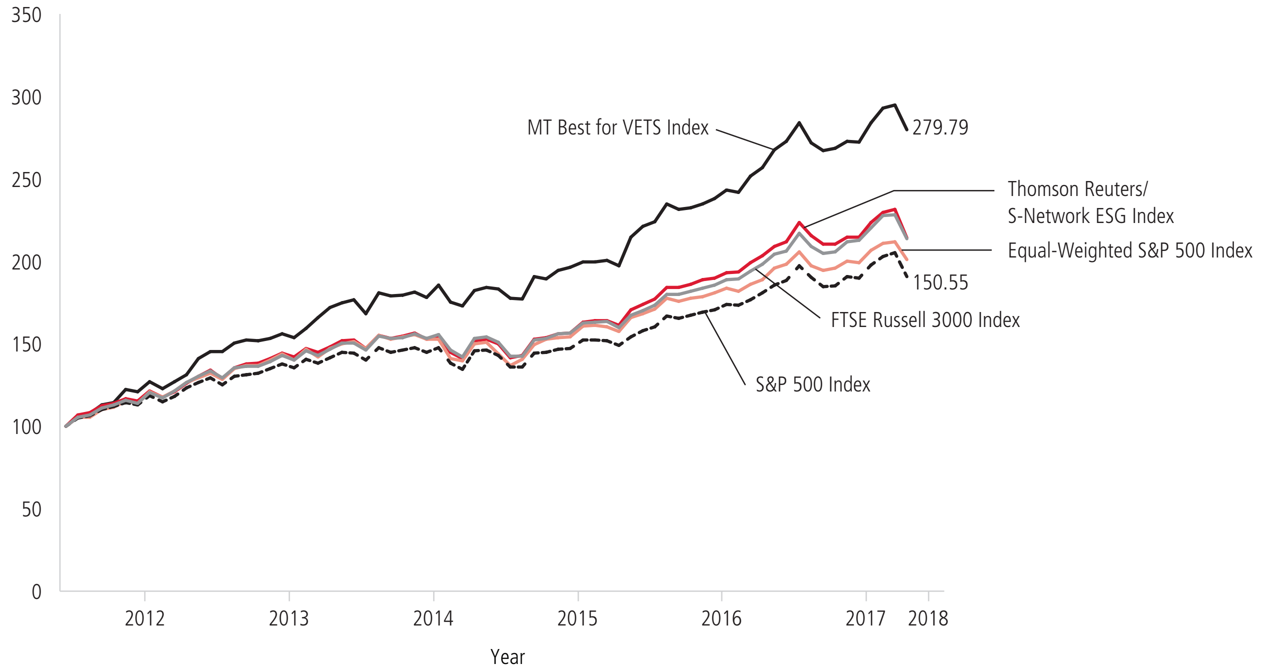
Table 1 shows that the public companies that meet the Military Times' criteria as Best for Vets overwhelmingly are among the better ranked companies in the Thomson Reuters/S-Network Best Practices ESG ratings system. The statistical data also show that the trend toward best corporate citizenship practices and inclusion in the MT Best for VETS Index has improved each year.

Figure 1 shows the MT Best for VETS Index and the four benchmarks scaled to an identical starting point of 100 at December 31, 2012. Although the inception date for the VETS Index is August 31, 2012, the year-end 2012 number is used to

TABLE 1. Thomson Reuters/S-Network ESG Index Ratings (Mean = 50; SD = 18) for VETS Index Constituents

MT Best for VETS Index Constituents	2018	2017	2016
Average Thomson Reuters/S-Network ESG Index Rating	68.9	65.9	64.3
Median Thomson Reuters/S-Network ESG Index Rating	71	67	67
Range of Thomson Reuters/S-Network ESG Index Ratings	53 to 80	44 to 80	41 to 83
Standard Deviation	7.3	9.1	10.4
Number Below 50	0	2	2

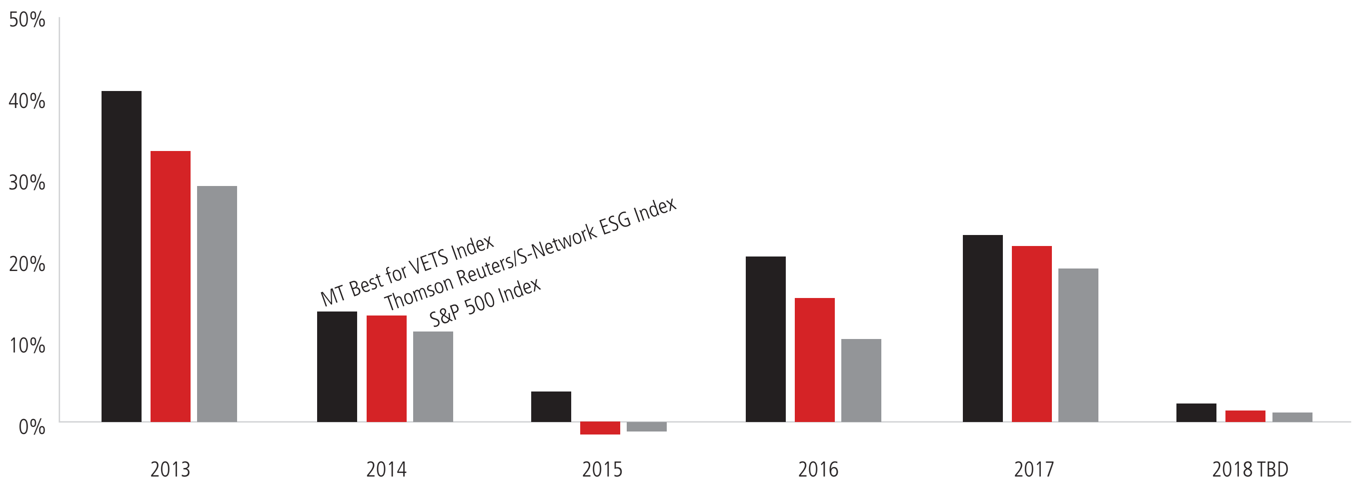
FIGURE 1. MT Best for VETS Index Versus Relevant Benchmarks



allow for this scaled comparison. The figure shows a clear positive differentiation between the 5.83-year growth of the MT Best for VETS Index, which achieved a level of 279.79 and the benchmarks. The Thomson Reuters/S-Network Best Practices ESG Index placed second at 214.40 which suggests an ESG absolute performance advantage of 13 percent for the period measured over the 190.55 mark posted by the S&P 500. These levels are 30 percent lower and 47 percent lower respectively than that attained by the MT Best for VETS Index. The Russell 3000 finished just slightly lower than the Thomson Reuters/S-Network Best Practices ESG Index and the equal-weighted S&P 500 Index finished fourth, about midway between the Russell 3000 and the S&P 500.

Figure 2 illustrates an additional comparison as it shows the calendar year return comparisons between the MT Best for VETS Index and two of the other

FIGURE 2. MT Best for VETS Index Versus Benchmarks: Calendar Year Total Returns



benchmarks. The figure excludes the equal-weighted S&P 500 Index and the Russell 3000 simply for visual clarity.

In terms of total return, the MT Best for VETS Index outperforms both the Thomson Reuters/S-Network Best Practices ESG and the S&P 500. Interestingly, for the month of October 2018, the most adverse month for the S&P 500 since October 2015, the MT Best for VETS Index fell only 5.0 percent as compared with a 7.1 percent decline for the S&P 500. Similar results occurred in that earlier month of October; the VETS fell only 5.5 percent while the S&P 500 fell 7.5 percent. These results are consistent with the implications in Benmelech and Frydman (2015), Haynie (2016), and Short, Zachary, and Ketchen (2018) that firms partial to military employees are resilient.

The monthly breakdown of returns is shown in Table 2.

TABLE 2. Monthly Index Returns

Year	Month	VETS Index	Thomson Reuters/ S-Network ESG	Equal-Weighted S&P	S&P 500	Russell 3000
2013	01	5.33%	6.65%	5.25%	5.04%	5.49%
2013	02	2.46%	1.30%	0.17%	1.11%	1.33%
2013	03	4.52%	3.95%	4.45%	3.60%	3.92%
2013	04	1.25%	1.37%	1.46%	1.81%	1.64%
2013	05	6.96%	2.64%	3.24%	2.14%	2.36%
2013	06	-0.96%	-1.29%	-1.12%	-1.34%	-1.30%
2013	07	4.83%	5.04%	6.02%	4.95%	5.48%
2013	08	-3.02%	-3.10%	-2.61%	-3.16%	-2.79%
2013	09	3.39%	3.07%	2.90%	2.84%	3.72%
2013	10	3.06%	4.27%	4.54%	4.53%	4.25%
2013	11	7.81%	3.33%	2.04%	2.72%	2.90%
2013	12	2.95%	2.66%	2.27%	2.18%	2.64%
2014	01	-0.25%	-3.55%	-2.79%	-3.42%	-3.16%
2014	02	3.54%	4.80%	4.84%	4.21%	4.74%
2014	03	1.27%	1.84%	1.53%	0.88%	0.53%
2014	04	-0.05%	0.45%	0.07%	0.56%	0.12%
2014	05	0.65%	2.05%	2.41%	2.10%	2.18%
2014	06	1.93%	2.20%	2.65%	2.00%	2.51%
2014	07	-1.40%	-1.63%	-2.59%	-1.66%	-1.97%
2014	08	3.58%	3.62%	4.66%	3.85%	4.20%
2014	09	4.07%	-1.46%	-3.07%	-1.63%	-2.08%
2014	10	3.86%	2.03%	3.44%	2.37%	2.75%
2014	11	1.58%	2.72%	2.09%	2.36%	2.42%
2014	12	1.10%	0.08%	0.80%	-0.33%	0.00%
2015	01	-4.83%	-3.18%	-2.81%	-3.02%	-2.78%
2015	02	7.45%	5.49%	5.52%	5.44%	5.79%
2015	03	-0.96%	-1.47%	-1.46%	-1.79%	-1.02%
2015	04	0.20%	1.04%	0.82%	0.96%	0.45%
2015	05	0.93%	1.25%	0.93%	1.02%	1.38%

continues

TABLE 2. Monthly Index Returns *(continued)*

Year	Month	VETS Index	Thomson Reuters/ S-Network ESG	Equal-Weighted S&P	S&P 500	Russell 3000
2015	06	-1.63%	-2.32%	-2.00%	-1.97%	-1.67%
2015	07	4.17%	0.62%	0.19%	1.81%	1.67%
2015	08	-5.54%	-5.83%	-7.56%	-6.39%	-6.04%
2015	09	-1.31%	-2.59%	-1.00%	-2.56%	-2.91%
2015	10	5.49%	7.67%	7.31%	8.39%	7.90%
2015	11	0.93%	0.37%	0.42%	0.10%	0.55%
2015	12	-0.49%	-1.62%	-4.65%	-2.15%	-2.05%
2016	01	-3.22%	-5.63%	-4.63%	-4.97%	-5.64%
2016	02	-0.13%	0.85%	2.72%	0.01%	-0.03%
2016	03	7.66%	6.99%	6.03%	6.17%	7.04%
2016	04	-0.68%	0.65%	2.20%	0.51%	0.62%
2016	05	2.59%	1.61%	0.76%	1.30%	1.79%
2016	06	0.92%	0.16%	0.21%	0.26%	0.21%
2016	07	1.66%	4.15%	4.21%	3.52%	3.97%
2016	08	0.15%	0.62%	0.35%	-0.08%	0.26%
2016	09	0.47%	-0.12%	-0.51%	-0.32%	0.16%
2016	10	-1.71%	-1.47%	-1.81%	-1.65%	-2.16%
2016	11	8.82%	5.80%	5.36%	3.36%	4.48%
2016	12	3.06%	1.76%	1.52%	2.34%	1.95%
2017	01	1.35%	1.80%	1.59%	1.51%	1.88%
2017	02	4.65%	4.11%	3.82%	4.14%	3.72%
2017	03	-1.28%	0.04%	-0.92%	-0.75%	0.07%
2017	04	0.33%	0.86%	0.91%	1.11%	1.06%
2017	05	1.08%	1.60%	0.66%	1.14%	1.02%
2017	06	1.29%	0.56%	1.21%	0.65%	0.90%
2017	07	2.27%	1.56%	1.47%	1.88%	1.89%
2017	08	-0.56%	0.26%	-0.92%	-0.11%	0.19%
2017	09	3.98%	2.90%	2.41%	1.89%	2.44%
2017	10	2.08%	2.20%	1.48%	2.46%	2.18%
2017	11	4.28%	2.73%	3.59%	2.40%	3.04%
2017	12	1.87%	1.34%	1.18%	1.46%	1.00%
2018	01	4.12%	5.55%	3.85%	4.95%	5.27%
2018	02	-4.24%	-3.53%	-3.97%	-3.59%	-3.69%
2018	03	-1.79%	-2.30%	-1.41%	-3.01%	-2.01%
2018	04	0.51%	-0.06%	0.50%	0.36%	0.38%
2018	05	1.57%	1.98%	2.28%	2.87%	2.82%
2018	06	-0.23%	0.08%	-0.37%	-0.51%	0.65%
2018	07	4.39%	4.15%	3.70%	4.30%	3.32%
2018	08	3.15%	2.68%	2.08%	2.69%	3.51%
2018	09	0.55%	0.84%	0.33%	1.01%	0.17%
2018	10	-5.03%	-7.45%	-5.18%	-7.13%	-6.28%

TABLE 3. MT Best for VETS Index Versus Benchmarks, Summary Statistics for December 31, 2012 through October 30, 2018

	MT Best for VETS Index	Thomson Reuters/ S-Network ESG Index	Equal-Weighted S&P 500 Index	S&P 500 Index	Russell 3000 Index
Annualized Return (Percent)	19.29	13.97	12.70	11.69	13.92
Annual Standard Deviation	10.47	10.45	10.27	10.13	9.94
Sharpe Ratio	1.79	1.29	1.19	1.10	1.35
Downside Monthly Deviation	1.38	1.68	1.68	1.68	1.61
Sortino Ratio	1.07	0.65	0.60	0.55	0.68

Table 3 provides statistical comparisons between the rates of return for the MT Best for VETS Index and the four benchmarks. The first two rows illustrate that the annualized total return for the MT Best for VETS Index during the period was considerably higher than that measured for each of the four benchmarks, while the annualized standard deviations were comparable. The Sharpe Ratio for the MT Best for VETS Index of 1.79, the excess return per unit of deviation, is 32.6 percent higher than that of the Russell 3000 which posted the highest Sharpe Ratio of the four benchmarks; it is more than 60 percent higher than the 1.10 Sharpe Ratio measured for the S&P 500 Index. When downside monthly deviations are isolated using Sortino Ratios, the comparisons are even more striking: 1.07, 0.68, and 0.55 for the MT Best for VETS Index, the Russell 3000, and the S&P 500, respectively. The favorable comparisons with the equal-weighted S&P 500 and the Thomson Reuters S-Network ESG Index demonstrate that the robustness of the MT Best for VETS Index during the period cannot be explained by the weighting scheme or by using standard ESG ratings that do not include military veterans–related KPIs.

It is a given in investment research that return comparisons are always time-period dependent. Nevertheless, at a minimum, these results are impressive enough to warrant further study for portfolios with ESG mandates and/or integrate ESG data into the investment processes.

APPLYING THESE RESULTS TO AN ESG FRAMEWORK

Investing in firms that are sensitive to environmental, social, and governance (ESG) criteria in their operations has been one of the fastest growing areas of investment in the United States since 1993. According to US SIF, the size of the U.S. sustainable and responsible investing (SRI) assets has grown from $0.6 trillion in 1995 to $11.6 trillion at the beginning of 2018. A 2015 joint survey by the CFA Institute and the Investor Responsibility Resource Center (IRRC) found that 73 percent of global respondents said they factor ESG issues into their investment processes. Furthermore, respondents cited the following as the top three reasons they take ESG issues into account: managing investment risk, ESG performance as a proxy for management quality, and client/investor demand. The top ESG factors considered are: board accountability, development of human capital, and executive compensation.

Many research studies, including academic and non-academic sources, have studied the effect that the inclusion of such factors has on investment returns. A 2018 joint report from the Asset Management Working Group of the United Nations Environmental Programme Finance Initiative and Mercer Consulting reviewed 20 academic studies focusing on various aspects of ESG investing. Some focused on one pillar, others on all three as a group. Ten were judged as showing positive links on ESG and performance, seven were classified as neutral, and three seen as negative. Overall, the findings are inconclusive from the perspective that ESG has not passed the academic threshold to be considered a market anomaly delivering superior risk-adjusted returns.

Diversity has become one of the most actioned issues in ESG today. From 1993 through 2017, the percentage of S&P 500 companies with diversity programs has grown from less than 20 percent to more than 70 percent. Studies by consulting and research firms Cambridge Associates, Catalyst, Credit Suisse Research Institute, ISS Corporate Solutions, McKinsey, and MSCI all report superior investment returns and financial metrics over a variety of time intervals for companies with at least three women on the board of directors. Two of the country's largest asset managers, SSgA and BlackRock, have not only promulgated the findings of these studies but have put into effect proxy voting policies voting against management on all issues unless there are at least three or two (respectively) women on the board of directors. Complementing these findings, the U.S. Office of the Comptroller of the Currency put out an economics working paper in June 2016 (St. Claire et al. 2016). The study found that companies with at least three women on the board performed significantly better during the financial crisis. Despite all this empirical evidence, academia remains unconvinced that the having women on the board brings tangible benefits to companies. Wharton management professor Katherine Klein strongly demurs (Klein 2017). She claims that research conducted by consulting firms and financial institutions is not as rigorous as peer-reviewed academic research, adding that the academic studies neither support nor disprove these findings.

Empirically, the growth of dollars committed to investment processes taking ESG into account continues despite the lack of conclusive academic support. Key reasons stated by investors included human capital development and risk control. Again, despite the lack of peer-reviewed academic support, the actions of major investors taken in response to the empirical studies impacts proxy voting on trillions of dollars in assets. The reasons given go beyond the reported improvement in investment returns to better overall financial ratios and much better performance during times of stress.

The parallels are striking. Human capital development, diversity of opinions and experiences, ability to hold up under pressure and adapt to new situations, risk control, and potential improvement of investment returns are all the benefits attributable to superior corporate treatment of military veterans detailed in this research. The proposition that hiring veterans is a source of competitive advantage and contributes to the social good is consistent both with empirical evidence (Benmelech and Frydman 2015; Atuel et al. 2017; Short, Zachary, and Ketchen 2018) and with advocacy for the employment of veterans (IVMF 2012; Haynie 2016). Moreover, the documented success of CEOs with military experience during downturns directly relates to ESG investors' stated objectives of

identifying companies with superior management quality. Thus, there is ample reason for ESG data providers and the institutional investors who are their customers to consider including veteran-related KPIs.

CONCLUSION

The state of knowledge on military veteran employment has not yet coalesced. The available research, with notable exceptions, is reacting to the pressing employment needs of veterans rather than providing a conceptually rigorous guidance for researchers, policymakers, firms, and investors. Thus, much of the study of military veterans and their impact on their civilian employers involves literature that falls in a gray area between standard publishing and self-published opinions. In this gray area, respected organizations such as government agencies, advocacy groups, and foundations produce an impressive array of monographs, reports, and other such documents that are amicable to their respective points of view. This knowledge cannot be ignored, especially given the dearth on this topic in the standard publishing literature. Thus, this study has relied on diverse sources to argue that the civilian employment of military veterans is both consistent with a firm's corporate and social responsibility objectives, and a source of economic value to the firm. This study has argued that positive corporate treatment of veterans satisfies both a firm's CSR/ESG initiatives and goals and produces tangible benefits in terms of a firm's performance and resilience in the face of financial and operational stress. The positive treatment of military veterans by their corporate employers is consistent with the superior social awareness by firms cited by investors for incorporating CSR/ESG data into their asset allocation decisions. To the extent that a firm's inclusion in the MT Best for VETS Index captures the quality of the firm's social stance toward military veterans in its ranks, then firms that treat veterans well generate a higher return per unit of total risk as compared to popular investment benchmarks. Thus, an investor in the MT Best for VETS Index should have every expectation of at least competitive, if not superior, performance. In fact, the balance of the evidence suggests that firms where military veterans thrive are the sort of firms that achieve superior rates of return.

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Appendix A: Timeline Relating to Veterans and Employment

- The Continental Congress of 1776 established the funding of pensions to disabled soldiers who fought in the Revolutionary War.
- In 1811, the federal government authorized the first domiciliary and medical facility for veterans.
- During the Civil War, Congress passed The General Pension Act of 1862 which provided disability payments. President Lincoln signed Congressional legislation which created the National Asylum for Disabled Volunteer Soldiers, the forerunner of the modern-day U.S. Department of Veterans Affairs, in March 1865. Hundreds of thousands of Union veterans received treatment for and assistance with their disabilities. On the jobs front, newspapers reinforced awareness of the scarceness of job opportunities for veterans. Articles and editorials praising local merchants that hired veterans were prevalent, but even more ubiquitous were spotlights on shame that the country could not better take care of the soldiers that preserved the Union.
- After the Spanish–American War, the first non-governmental organization (NGO) advocating for veterans' rights, the Veterans of Foreign Wars (VFW), was formed in 1899.
- As the United States entered World War I in 1917, Congress established a new system of veterans benefits, including programs for disability compensation, insurance for service personnel and veterans, and vocational rehabilitation for the disabled.
- In 1919, another prominent NGO, the American Legion, was established and immediately took to the task of facilitating training and providing introduction to companies open to hiring veterans. They also lobbied chambers of commerce to adopt policies giving preferential hiring treatment to veterans.
- By the 1920s, three different federal agencies administered the various benefits: the Veterans Bureau, the Bureau of Pensions of the Interior Department, and the National Home for Disabled Volunteer Soldiers. Again, the hiring of veterans by companies was greatly encouraged by major municipal chambers of commerce.
- In 1940, while the United States was still debating whether to enter World War II, Congress passed the Veterans Reemployment Rights (VRR) law in 1940 prescribing that members of armed forces had the right to return to the civilian jobs they left in order to serve in the armed forces.
- The other landmark piece of legislation for veterans' rights and jobs was signed into law by Franklin D. Roosevelt in 1944: The Servicemen's Readjustment Act, better known today as the GI Bill. Among other things, the GI Bill appropriated $500 million for the construction of facilities for veterans, authorized unemployment, offered job placement aid for vets, and provided payment for up to four years of education and training.
- Our country's general mood was reflected not only by government actions but in the corporate sector as well. "… There was an enormous amount of

national pride," says Charles Leo, a professor of management at Pepperdine University's Graziadio School of Business and Management. "If there was a choice to make, the veteran would be the one who was hired."

- In contrast, veterans returning from Vietnam did not find an atmosphere of national pride, despite a Congressional assistance act in 1974 and continued support by advocacy groups and NGOs. They were not given preference over non-veterans in most corporate hiring decisions. In many cases, the reverse was true. The Bureau of Labor Statistics reports that the veterans of this war, especially those that had actually served in Vietnam, had the highest unemployment rates and the shortest first job tenures.
- Starting with the strengthening of the GI Bill in 1984, the government and NGOs were back in full force encouraging companies to hire veterans. A new groundswell of support followed the first Gulf War. The Uniformed Services Employment and Reemployment Rights Act (USERRA) of 1984 strengthened veterans' rights to return to jobs left before the war and encouraged veterans' hiring in general.
- About the same time, the Transition Assistance Program (TAP), a U.S. Department of Defense–led program that provides service members with information and resources to prepare them for their civilian life, was established.
- The Post-9/11 GI Bill is an education benefit program for individuals who served on active duty after September 11, 2001. It provides eligibility for tuition benefits and career counseling at colleges, universities, trade schools, and for on-the-job training, apprenticeships, and flight schools. It also covers tutorial assistance, licensing (e.g., attorney, cosmetology), and certification tests (e.g., surgical technician, financial planner).
- A lot of pro-hiring legislation in the past decade has occurred at the state level. Since 2011, 37 states have enacted legislation allowing private employers to give hiring preference to honorably discharged veterans.
- In August 2017, the "Forever GI Bill," officially the Harry W. Colmery Veterans Educational Assistance Act, was signed into law. The bill focused on educational, training, and housing benefits for veterans, and for the first time had no expiration date associated with these benefits.
- Most recently, the U.S. Department of Veterans Affairs officials announced plans to partner with nonprofit Social Finance to expand use in VA medical centers of a recently developed "Individual Placement and Support" program. The program is designed to match individuals with mental health challenges to potential job opportunities built around their workplace needs. Nearly 500 veterans in the New York and Boston region will take part in what officials hope is the first wave of a broader deployment of the resource.

Appendix B: Government Departments, Agencies, and NGOs with Programs

The following is a list, by no means all-inclusive, of governmental departments and NGOs dedicated to helping U.S. military veterans in the workplace.

1. America's Heroes at Work
2. Department of Labor's Veterans' Employment and Training Service
3. Department of Veterans Affairs: Jobs
4. Department of Veterans Affairs: Vet Success
5. Department of Veterans Affairs: Vocational Rehabilitation and Employment Program
6. Hire America's Heroes
7. Hire Heroes USA
8. Military Spouse Career Center
9. Military Times Reboot Camp
10. Military.com Veteran Careers
11. Paralyzed Veterans of America
12. Return to Work
13. S.A.V.E. Farm
14. Skillbridge, a Department of Defense Program
15. USO Pathfinder
16. U.S. Office of Personnel Management
17. Vet Biz
18. Vet Jobs
19. Veteran and Military Business Owners Association (VAMBOA)
20. Veterans Employee and Training Service
21. Veteran Employment
22. Veteran Mentor Network
23. Veterans Farm
24. Vocational Employment Counseling Center for veterans with spinal-cord injuries

Appendix C: Sources of ESG and Related Data

Institutional Shareholder Services Inc. (ISS) is the world's leading provider of corporate governance and responsible investment (RI) solutions for asset owners, asset managers, hedge funds, and asset service providers. ISS's solutions include: objective governance research and recommendations; RI data, analytics, and research; proxy voting and distribution solutions; turnkey securities class-action claims management; and reliable global governance data and modeling tools.

MSCI ESG Research provides in-depth research, ratings, and analysis of the environmental, social, and governance–related business practices of thousands of companies worldwide. Research is designed to provide critical insights that can help institutional investors identify risks and opportunities that traditional investment research may overlook. Clients use these data to help implement their responsible investment objectives.

The Military Times* was established in 1940, originally as the Army Times Publishing Company, to provide groundbreaking journalism about the military community. Since that time, its essential mission has been to serve the needs of those who serve and have served. As such, a key function has been to highlight, measure, and promote how government, corporations, and communities support the needs of soldiers and military veterans.

Sustainalytics is a global leader in ESG and corporate governance research and ratings. Sustainalytics supports hundreds of the world's foremost investors who incorporate ESG and corporate governance insights into their investment processes.

The Thomson Reuters/S-Network ESG Best Practices Ratings* establish common standards for rating the environmental, social, and governance of corporate entities. These ratings have been engineered to be actionable for comparative decisions. The goal of this joint initiative is to provide an engine of transparency encouraging consistent and actionable disclosure from institutions around the world.

* The author thanks these providers for their major data contributions.

Appendix D: VETS Index: Employers—From Surveys to Index Selection Data

Year	Surveys Received	Selected to Best for Vets: Employers Rankings	Public Companies Ranked	Companies Selected to Index
2016	131	75	57	34
2017	144	82	60	37
2018	202	100	67	44

Review of Business: Interdisciplinary Journal on Risk and Society is published twice a year.
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The journal publishes basic research on how business manages and engages with risk or uncertainty, and basic research on the resulting effect on society, so as to produce evidence-based quality knowledge that can impact the practice of business. The impact of this journal flows from its reach beyond the academy. This is a peer-reviewed academic journal.

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