

In Institutions We Trust? Trust in Government and the Allocation of Entrepreneurial Intentions

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Abstract. Whether entrepreneurship generates economic growth depends on the institutional environment due to its impact on the mix of productive and unproductive entrepreneurship in the economy. The incentive structure embedded in each society affects whether talented people become entrepreneurs and potentially, the extent to which they engage in more productive forms of entrepreneurship. We examine how trust in institutions affects the entrepreneurial intentions of potentially productive entrepreneurs. We utilize the unique event surrounding the impeachment of South Korea's previous president. The event improved people's trust in the government because it was ultimately the people's protests and demands that led to the impeachment of the president for influence peddling and extracting personal rents from businesses. By surveying the same individuals before and after the impeachment ruling, we identify people's changes in trust in government and various institutions. We find that increased trust in institutions increases one's intent to start a business within five years. Moreover, we show that the relationship between trust in institutions and entrepreneurial intention is significantly stronger for engineering majors from top universities.

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1. Introduction

Though it is difficult to predict who will become high-growth entrepreneurs, a society where talented, higher human capital people pursue entrepreneurship instead of nonproductive activities is more likely to grow (Murphy et al. 1991, Eesley 2016). The institutional environment has been theorized (and empirical evidence is mounting) to influence both the rate of entrepreneurship and type of entrepreneur in society (Dobbin and Dowd 1997, Tolbert et al. 2011). Most of the prior literature focuses on regulatory and financial capital-based barriers to entry (Klapper et al. 2006, Klapper et al. 2010). Yet, lowering entry barriers has been shown to lead to greater exit as well as entry rates as less talented individuals tend to respond to this margin and also have a higher likelihood of entrepreneurial failure, known as churn (Kerr and Nanda 2009). Baumol (1990), using historical evidence, and Murphy et al. (1991), with a theoretical model, argue that institutions affect the degree to which talented people pursue productive entrepreneurship.¹ Recent work (Eesley 2016) shows that lowering barriers to growth through industrial policy or reducing barriers to failure (Eberhart et al. 2017) can increase the likelihood of higher human capital individuals starting firms. Despite

the importance of high-growth entrepreneurship for economic growth, the empirical literature that examines how institutions affect the allocation of talent to entrepreneurship within societies is surprisingly sparse. Recent work suggests that alongside regulatory policies, cognitive and normative institutions also may have an important impact on entrepreneurial activity and on the type of entrepreneurship (Sine and David 2003, Hiatt et al. 2009, Eesley et al. 2018).

This paper uses a unique political event, the impeachment of South Korea's previous president, to examine how people's trust in institutions of government affects the entrepreneurial intent of potentially productive entrepreneurs. The level of trust in society is one example of how nonregulatory institutions, including normative and cognitive pillars of the institutional environment together with regulatory policies affect organizations. In this case, whether it is taken-for-granted that government is a beneficial, trusted actor in the economy may influence the type of individuals who become entrepreneurs. High levels of corruption and rent-seeking in the government may deter talented people from taking risks and investing in potentially productive entrepreneurial activities. Corruption and rent-seeking may reduce the expected returns from entrepreneurship and increase uncertainty. Increased

trust in the institutions of government could therefore increase the entrepreneurial intent of potentially productive entrepreneurs, especially, those that engage in high-risk and high-investment entrepreneurship.

Park Geun-Hye was the first female president of South Korea and many were hopeful that her clean image would propel South Korea politics to finally move beyond its past legacy of corruption. However, a major corruption scandal that involved Park's close friend erupted and the people took to the streets demanding her to step down. Ultimately, Park was impeached in a unanimous ruling by the Constitutional Court. We surveyed people's trust in the institutions of government and entrepreneurial intent before the impeachment ruling, and conducted another survey asking the same people how their trust in institutions and entrepreneurial intent changed after the impeachment ruling.

We find that the impeachment ruling increased people's trust in government, and increased trust in government is associated with an increase in entrepreneurial intent. Moreover, the relationship between trust in government and entrepreneurial intent is significantly stronger for individuals with Science, Technology, Engineering, and Math (STEM) degrees from top universities. Whereas prior literature at the intersection of institutions and entrepreneurship theorizes that institutional changes result in greater levels of entrepreneurship, relatively little work focuses on how institutions shape the characteristics of individuals becoming entrepreneurs (Tolbert et al. 2011). Recent work suggests that lowering regulatory barriers to growth or to failure may have effects on certain types of entrepreneurs (Eesley 2016, Eberhart et al. 2017). Other work suggests that normative institutions may shift the type of technologies toward a more conservative, older generation (Sine et al. 2005, Sine and Lee 2009); however, no prior work (that we are aware of) has theorized how nonregulatory institutional change, shifts the type of entrepreneurs. Whereas previous literature assumes trust in institutions and focuses on regulatory changes, ours is among the first to problematize this and to theorize how changes in the level of trust (nonregulatory) may alter the type of entrepreneur. This paper develops a theory on how an increase in generalized trust in institutions of government² can increase entrepreneurial intent, especially of talented individuals and empirically confirms, we believe for the first time, that trust in institutions of government affects the entrepreneurial intent of potentially productive entrepreneurs.

Our findings contribute to two main strands of the literature. First, institutional theorists have produced a large literature arguing that the attraction of individuals toward entrepreneurship is shaped by institutional arrangements (North 1990, Sorenson and Audia

2000, Sine and David 2003, Hwang and Powell 2005, Sørensen 2007). However, this work has rarely been connected with the stream of work on intellectual human capital and career choices of STEM graduates. Previous work suggests entrepreneurial talent may be channeled toward founding ventures according to the prevailing institutional environment (Baumol 1990, Murphy et al. 1991). When entrepreneurial activity contributes to the net output of the economy, it has been coined as "productive entrepreneurship," with the complex of institutions supporting it labeled as the entrepreneurial ecosystem (Baumol 1993, p. 30, Stam 2015, Acs et al. 2017). Research in this stream has argued that the more that institutions are oriented toward productive entrepreneurship, the greater the extent to which it results in economic growth (Bosma et al. 2018). Yet, such work rarely considers how institutional changes may alter the heterogeneity in organizations by, for instance, incentivizing individuals from certain educational backgrounds to start ventures.

Second, we respond to prior calls for further research into the interplay between micro and macro-level trust at the individual, organizational and institutional levels (Lane and Bachmann 1998, Saunders et al. 2010, Bachmann et al. 2015). In particular, Siegel (2007) and Jeong and Siegel (2018) examine the case with South Korea's conglomerates, but in this paper our focus is on institutional trust (not government ties) and on entrepreneurial intention rather than established firms. Whereas previous research at the intersection of institutions and entrepreneurship has focused on how certain types of regulatory institutional change, which lower barriers to economic activity may lead to more (and higher quality) entrepreneurship (Eesley 2016, Eberhart et al. 2017), our contribution here is to theorize on the relatively underexplored impact of nonregulatory institutions, particularly trust in institutions. Unlike prior work, which focused on the trust repair process and factors enhancing the recovery of trust (Kim et al. 2009), we look at the economic consequences of trust repair in institutional trust and show that it particularly increases the entrepreneurial behavior of high human capital individuals. In this way, our results respond to a gap pointed to by prior literature for more work on how institutional trust repair has differential impacts on various stakeholder groups (Pirson and Malhotra 2011) as well as on how the effects play out over time, which has received little direct examination (Nooteboom 1996, Möllering 2013).

The paper proceeds as follows. In the next section we review relevant literature and then conceptually discuss why trust in institutions could affect the allocation of talent to entrepreneurship. Section 3 discusses the theory in relation to the context surrounding impeachment. Section 4 discusses the survey and data. Section 5 presents the empirical results and Section 6 concludes.

2. Literature Review

Institutions have long been known to shape the allocation and provision of physical and human capital (Hall and Jones 1999, Acemoglu et al. 2005). Much of this work focuses on the regulatory dimension and the question of whether lower regulatory burdens or reductions in startup costs lower barriers to entry (King and Levine 1993, Levie and Autio 2011). A stream of work drawing on institutional economics has examined how institutions affect entrepreneurial intent (Shane et al. 1991, Busenitz et al. 2000). Such work is close in spirit to economic sociology, particularly institutional theorists (Scott 1995, Nee and Swedberg 2005), in arguing that formal (laws and regulations) and informal rules (norms and social practices) are important for analyzing economic activity (North 1990, Williamson 2000). The choice of entrepreneurship as opposed to wage employment has previously been shown to depend on the quality of the institutional environment (Lerner and Schoar 2010, Eesley 2016). Institutions influence the quality of entrepreneurship (Guzmán and Stern 2020) and the level of contract enforcement as well as the enforcement of the rule of law may influence the amount of corruption or risk of appropriation (Shleifer and Vishny 2002, Stuart and Wang 2016). Thus, from this prior literature, we know that the prevailing institutions may channel talent toward founding ventures. Yet this literature has implicitly assumed a high degree of trust in institutions, (or abstracted away and ignored this concept) thus far having been silent on whether trust in institutions matters for entrepreneurship.

This neglect appears despite the large literature on “informal” or normative and cognitive institutions. Cognitive institutions more broadly (knowledge and skills) have frequently been linked to indicators of entrepreneurship (Levie and Autio 2008, Hafer and Jones 2015, Armanios and Eesley 2021). Building on the normative pillar, cultural attitudes have also been studied by institutional economists (Greif 1994) and have been shown to be linked (via correlation) to the rate of entrepreneurial activity (De Clercq et al. 2010, Danis et al. 2011). Lee and Eesley (2018) note that the different institutional environment between Asian countries and the United States affects the importance of the intergenerational persistence from parents to children, leading to differences in the entrepreneurship rate between Asians and Asian immigrants to the United States. These cultural attitudes have included a variety of measures such as socially supportive versus performance-based cultures, and power distance or uncertainty avoidance (Hayton et al. 2002). For instance, entrepreneurship rates have been shown to be negatively related to a country’s level of corruption (Stephan and Uhlener 2010).

Whereas previous literature argues that institutions influence the success of technology transfer, it has less

to say about the impacts of informal institutions such as social norms, in this case trust, relative to the larger amount of work on regulatory institutions (i.e., patent and trademark laws, or intellectual property protection). For instance, one example of this type of work, Sine and colleagues (2003) show institutional prestige positively influences the licensing rate beyond the extent of past licensing performance. Yet, how to begin this virtuous cycle is less clear as much of the prior work (done in the context of Western institutions) assumes both enforcement and trust in regulatory institutions critical to technology, like patent protection, contract enforcement and ownership regulations. For example, although Japan had also passed its own Bayh-Dole act, firms have continued to rely less on university research than in the United States (Spencer 2001, Grimaldi et al. 2011). The nonregulatory institutions behind these differences across contexts are less well-explored in the literature. Such work points to the need to better understand how other institutions beyond universities facilitate technology-based entrepreneurship, technology transfer and how it varies. Despite the adoption of inventor-ownership regulations around the globe, our understanding of the institutional support to translate science and engineering into entrepreneurial activity remains underdeveloped (Chen et al. 2016). Prior literature also points to the need for more research on gathering primary data on entrepreneurial activities beyond the more typical patenting and licensing data (Wright et al. 2004, p. 240) as well as data on contexts outside of the United States (Chen et al. 2016). Much prior work uses licensing as a proxy for technology-based commercialization activities and rarely is entrepreneurship measured. However, prior studies that suggest much of a university’s entrepreneurial impact is outside of their faculty and technology transfer offices and occurs via alumni (Hsu et al. 2007, Wu and Eesley 2021). Thus, reviewing prior literature points to a gap in our understanding of how nonregulatory institutions may influence entrepreneurship among those with the individual skills and attributes best suited to high-tech entrepreneurship.

Also relevant to our work is previous literature on institutions and academic entrepreneurship (Stuart and Ding 2006, Rothaermel et al. 2007, Kenney and Patton 2009, Eesley and Miller 2018). This stream largely focuses on patent rights (such as the Bayh-Dole Act) and technology transfer, yet implicitly assumes trust in institutions. For intellectual property rights protection, contract enforcement, and fundraising, trust in institutions is likely critical given the greater reliance on intangible assets and the need for complementary assets to capture the value from innovation (Teece 1986).

More broadly, scholars have long noted the association between star scientists and engineers and

high-tech firm entry (Zucker 1998, Colyvas et al. 2002, Zucker and Darby 2014). We know from prior work on STEM graduates in particular that contextual factors, such as entrepreneurial norms and role models appear to have a larger impact on the likelihood of joining a startup as an employee than on becoming a founder (Roach and Sauermann 2015). STEM graduates who choose to work for startups tend to place greater importance on motivations for intellectual challenge relative to job security (Sauermann 2018). Earlier work on scientists becoming entrepreneurs showed that social influence, such as entrepreneurial colleagues and coauthors resulted in a greater likelihood of transitioning to entrepreneurship (Stuart and Ding 2006). Exploring the influence of social norms on academic entrepreneurship, Bercovitz and Feldman (2008) show that individual attributes, while important, are conditioned by the local social norms in the university institutional environment. In particular, academic entrepreneurs are more prevalent when the norms in the department (led by the department chair and others) are aligned with technology transfer (Colyvas 2007) and entrepreneurial activity (Stuart and Ding 2006, Roach and Sauermann 2015). Although we know that norms toward commercialization are important at the level of the local organization, we know less about the impact of generalized trust in institutions beyond the local organization.

Prior theoretical work on trust has largely focused on individual level, interpersonal trust, whereas less scholarship has explored macro-level, impersonal trust (Rousseau et al. 1998, Bachmann and Inkpen 2011, Bachmann and Zaheer 2013). Societal trust or political trust are other terms that have been used to refer to this idea where trust is impersonal, rather than being generated in the context of interpersonal relations between specific individuals (typically the domain of psychology literature). Analogous to a personal guarantor in the case of trust at the interpersonal level, institutions can foster the establishment of shared knowledge and understandings between a trustor and trustee. An individual in this circumstance may find it appropriate to trust another individual, organization or institution because the institutional arrangement acts like a personal third-party guarantor, reducing risk and increasing the likelihood of making a leap of faith and investing trust in relationships. Yet, we still lack a comprehensive understanding of the institutional determinants and influence on trust (McKnight et al. 1998). The role of the institutional environment in fostering this important culture of trust is relatively unexplored. While prior literature on institutions and entrepreneurship highlights the institutions themselves, it has not examined the more fundamental question of the logical link from trust in institutions to entrepreneurial activity.

2.1. Theory and Hypothesis Development

Trust is likely to be central to any organizational or individual behavior that involves risk-taking, uncertainty and interdependence on resource providers, such as entrepreneurship (Rousseau et al. 1998). Yet, beyond establishing these associations between specific institutional environments and economic outcomes, prior work rarely refers to cases where institutions are the object of trust (Barber 1983, Fukuyama 1995) and seldom utilizes research designs enabling causal identification via quasi-natural experiments. Even more rare is for the notion of trust to be explicitly mentioned or measured at all in the streams of work on institutions and entrepreneurship. This is the case even though for institutions or changes in the institutional environment to have an impact, there must be a certain level of trust across society in those institutions and the government carrying them out. We argue that trust in institutions has an effect in channeling technical talent toward entrepreneurial risk-taking. We draw on the literature on trust that emphasizes institutions-based trust. At the organizational or institutional level, previous work has explored the process of trust repair (Bachmann et al. 2015). However, before institutions may generate this type of trust, individuals must have trust in the system, in the rule of law, or in institutions themselves. Institutions must be an object of trust to fulfill this role, as has been pointed out by work with a political science orientation (Fukuyama 1995, Cook 2001, Cook and Gronke 2005). As prior scholars have noted, future empirical research is needed on impersonal, institutional-based trust (Zucker 1986, Bachmann and Inkpen 2011). We follow calls in prior literature for future work at the intersection of organizations, trust and risk, especially in international contexts with dynamic institutions (Luhmann 1979, Lewicki et al. 1998, Schoorman et al. 2007, p. 351, Fulmer and Gelfand 2012).

Trust is critical when dealing with risk and interdependence (Rousseau et al. 1998, Stewart 2004), which are central elements of entrepreneurship. Because a potential entrepreneur faces a high level of risk, due to the need to share their ideas in order to gather necessary resources or enter into contracts, being able to trust not just their counter-parties, but the institutions underpinning the rule-of-law is vitally important. Otherwise there would be no recourse (and thus greater incentives to cheat) if contracts are broken or intellectual property is stolen, even if there exist laws against such malfeasance on the books. As institutions encompass the rule of law, corruption and risk of appropriation, trust in institutions is likely to positively influence people's decision to become entrepreneurs. In contrast, when trust in institutions is lacking, potential entrepreneurs cannot be assured that their risk-taking will be rewarded fairly if successful. Whether via a lack of contract enforcement or other

uncertainties in the institutional framework an entrepreneur relies on for the social and regulatory rules of the system to function, a potential entrepreneur is likely to avoid entrepreneurship when trust in institutions is low.

Hypothesis 1. *Increased trust in institutions will be associated with an increase in entrepreneurial intentions.*

Previous work has argued that institutions are key in explaining differences in economic growth across countries (Acemoglu et al. 2002). One mechanism by which institutions can influence economic growth is by the quality of entrepreneurs incentivized to become entrepreneurs. An individual's contribution to economic growth can be greater through entrepreneurship than through employment, because a firm's growth potential is less constrained than that of an employee. How much an employee can accomplish is constrained by time. On the other hand, an entrepreneur can employ technology, capital and labor to produce more with the same amount of time (Schumpeter 1942). Of course, not all entrepreneurship is more productive than employment. There is ample evidence showing that entrepreneurs earn less than the average employee (Hamilton 2000), and that many entrepreneurs have little intention to grow their businesses (Schoar 2010). Furthermore, most individuals prefer employment over entrepreneurship, because entrepreneurship involves higher risk and lower security (Hall and Woodward 2010). Hence, whether talented people engage in productive entrepreneurial activities would affect whether entrepreneurship contributes to economic growth (Lee 2017, Lee 2018).

However, much of the work in this stream focuses on establishing a link from institutions to levels of entrepreneurship rather than examining the type of entrepreneurship or characteristics of the founders. Institutions, including both regulatory and social norms, have been shown to affect entrepreneurship rate among different groups of the population. Prior research at the intersection of institutions and entrepreneurs has argued that the broader institutional environment must be well-aligned for technology-based entrepreneurship to succeed (Eesley et al. 2016, 2018). Potential entrepreneurs from top universities with higher levels of talent and human capital have been shown to be less likely to found technology-based ventures when significant barriers to growth (Eesley 2016) or barriers to failure are present in the institutional environment (Eberhart et al. 2017). Furthermore, even when such ventures are founded, the financial performance of high-tech ventures is significantly lower when the broader environment is institutionally *inconsistent* with such ventures in that it fosters politically connected firms or fails to enforce intellectual property protection, even when such rules

are written into the law (Eesley et al. 2016). Institutional intermediaries have similarly been shown to be especially important for high-tech entrepreneurship when the institutional environment is less developed (Armanios et al. 2017, Eberhart and Eesley 2018, Eesley et al. 2021).

A more recent substream begins to address these questions around how institutions influence the type individuals likely to become entrepreneurs. Interestingly, while early findings showed the expected relationship with higher rates of entry, more recent work examining the question of who is most affected by lowering regulatory barriers, indicates that reducing entry barriers mostly facilitates lower quality entrepreneurship (Stenholm et al. 2013, Darnihamedani et al. 2018). The stream of literature on gender and entrepreneurship has made great progress in demonstrating the benefits of an institutional lens (Ahl 2006, Elam and Terjesen 2010, Hughes et al. 2012). For example, Thébaud (2015) examines the way that regulatory institutional contexts that are characterized by work-family conflict result in higher rates of representation by women among business owners, yet lower rates of growth-oriented entrepreneurship. When institutions are not supportive in mitigating work-family conflict (such as paid leave, childcare, part-time employment opportunities), women are more likely to take the risk of entrepreneurship as a fallback employment strategy. In other words, institutions such as, contract enforcement, bankruptcy law, corruption etc. differentially influence the incentives of the different groups of the population to become entrepreneurs, and which groups are more likely to pursue entrepreneurship subsequently can affect economic growth.

The tier of the university the student attends is associated with the quality of the human capital generated. Prior research indicates that talented, high human capital individuals from higher tier universities may be more sensitive to aspects of the institutional environment related to risks of failure and barriers to growth (Eesley 2016, Eberhart et al. 2017). A large body of literature in economics and education has studied the returns to college quality and most of the research find that the quality of college positively affects individual wages (Black and Smith 2006, Long 2010). Part of this effect may be due to intellectual human capital and the benefits of proximity to star scientists and engineers (Zucker 1998, Zucker and Darby 2014). The argument here mirrors the evidence on academic spin-offs, where affiliation of academic entrepreneurs to more reputable academic institutions is a signal of quality, associated with increases academic entrepreneurs' chances of obtaining external investment (Di Gregorio and Shane 2003) and higher valuation of the firm at IPO (Colombo et al. 2019).

Due to their better career prospects, those from higher tier universities will also be more sensitive to the impacts of loss of reputation if their venture should fail. In fact, Eberhart et al. (2017) find that reducing barriers to failure increase entrepreneurship among top tier university graduates. Those from top tier universities are more likely to than others to pursue high quality entrepreneurship that involves higher risks and opportunity costs. Wadhwa et al. (2008) find that graduates from top-universities are overrepresented among US-born tech entrepreneurs relative to the general population. Start-ups by U.S. born founders with Ivy League degrees earned higher revenue and had higher employment levels (Wadhwa et al. 2008). Potential entrepreneurs who have high opportunity costs—for example, higher paying jobs as employees, higher risk and higher reward projects, or higher startup costs are likely to be relatively more responsive to this dimension of the institutional environment. This type of entrepreneur tends to rely on fair competition, sound and reliable government policies, and a belief that the economy will reward good ideas or merit would likely be more sensitive to trust in institutions. Due to their relatively high opportunity costs, such individuals are more sensitive to changes in the institutional environment that may be perceived as creating barriers to growth (Eesley 2016). When uncertainty and risk are high, as they often are in high risk, high growth entrepreneurship, building trust between individuals and organizations is even more important (Aldrich and Fiol 1994).

Then, what would incentivize a group of talented individuals to pursue productive entrepreneurship? Baumol (1990) and Murphy et al. (1991) both note that talented individuals seek to obtain the maximum gains from either entrepreneurship or rent-seeking activities. As Murphy et al. (1991) theoretically show, this is the case when there is increasing returns to skill and diminishing returns to both time and scale (size of the firm). The quality of regulatory institutions, particularly the institutions within the government can affect expected returns and whether talented individuals engage in rent seeking activity versus entrepreneurship. Governments that unduly extract business profits or conduct unfair practices based on nepotism and corruption (in the absence of consequences and sanctioning) would disincentivize talent to pursue entrepreneurship, but rather incentivize them to engage in rent-seeking activities. Governments often pursue various public policies that promote business creation, such as subsidized lending, tax breaks, information provision, and regional and industry clusters (Lerner 2009, Acs et al. 2016). If the government selects the beneficiaries of such policies based on fair and trustworthy practices, and talented individuals believe that they are more likely to be the beneficiaries of such policies, increased

trust in institutions would encourage talent to take on business creation. In other words, trust in institutions increases people's belief that merit, not bribes and connections will determine the returns to entrepreneurship. As long as people believe that the returns to entrepreneurship correlates with individual talent under fair circumstances, then the relative returns to entrepreneurship will be higher for talented individuals and talented individuals would be more likely to pursue entrepreneurship when trust in institutions increases.

Hypothesis 2. *Increased trust in institutions will be associated with a greater increase in entrepreneurial intentions by talented individuals relative to less talented individuals.*

Among talented individuals, who would be more incentivized to pursue entrepreneurship when trust in institutions increases? Particularly for entrepreneurial ventures where intangible assets are more important and information asymmetry is high (Dushnitsky and Shaver 2009, Dushnitsky 2010), trust issues become even more salient since these factors make governance and control more challenging (Das and Teng 1998). We know from existing work that interpersonal trust plays a key role in mediating networks of knowledge transfer (Abrams et al. 2003, Levin and Cross 2004, Eesley and Wu 2020). For high-tech entrepreneurs in particular, because they often depend on knowledge exchange, interorganizational agreements and lack the resources to defend intellectual property, trust is especially salient because they are often “swimming with sharks” (Katila et al. 2008). Early literature on entrepreneurship points to the importance of networks of trust for new founders who are often struggling to signal legitimacy in order to access much needed resources (Aldrich and Fiol 1994, Hiatt and Park 2013, Hiatt and Carlos 2019). To this stream of work, we add the insight that when trust in institutions is greater, potential entrepreneurs (particularly those commercializing new innovations) will be more likely to believe they can build these necessary networks of trust around themselves and their ventures.

For those with STEM degrees, as a result of the tendency to focus on R&D intensive, higher risk, higher reward projects, the uncertainty generated by the lack of trust in institutions is more salient. STEM majors have been shown to be more likely to found firms and to perform better in terms of entrepreneurial outcomes as well (Zucker et al. 2002, Colombo and Piva 2020). Due to the reliance on the courts for intellectual property protection and contract enforcement as well as the need to raise larger amounts of capital for R&D intensive startups, such entrepreneurs with STEM educational backgrounds are likely to be more heavily influenced by trust in institutions.

The emerging stream of work on the career preferences and pathways of STEM graduates has made

considerable progress in mapping the relevant factors shaping STEM careers (Sauermann and Roach 2012, Sauermann 2018). Yet, this stream has rarely been linked with work on institutional change. STEM majors generally earn considerably more than other college majors and the STEM major premium has been increasing over time (Arcidiacono 2004, Melguizo and Wolniak 2012, Gemici and Wiswall 2014, Kinsler and Pavan 2015). As Breznitz and Zhang (2020) find STEM majors are less likely than non-STEM majors to start a business, because their earnings as an employee are higher. The returns to entrepreneurship need to be substantially higher for STEM majors to consider entrepreneurship given the opportunity costs and better options outside of entrepreneurship. Correspondingly, trust in the institutions of government must be higher, otherwise, such individuals are likely to perceive the returns to entrepreneurship as too uncertain. Furthermore, decreased trust in institutions may be likely to increase the salience of job security, which has been shown to be inversely correlated with STEM graduates' choice of startup careers.

STEM majors, due to their higher opportunity costs and educational background in science and technology are more likely to undertake more R&D intensive, higher risk, yet higher reward forms of entrepreneurship. Murphy et al. (1991) note that the fraction of engineering majors is related to technological progress via higher quality entrepreneurs in a country and empirically show that the fraction of college majors in engineering is positively related to the country's growth rate. A survey of U.S.-born tech entrepreneurs in the United States finds that nearly half of the founders have a terminal degree in STEM (Wadhwa et al. 2008). There is ample evidence supporting the higher rewards associated with technology entrepreneurship both anecdotally and in empirical research. The cluster of tech-based startups and venture capital firms in Silicon Valley attest to the high-risk, high-payoff nature of STEM entrepreneurs and tech entrepreneurship. Guzman and Stern (2020) find that firms associated with specific high-technology sectors (biotechnology, e-commerce, IT, medical devices and semiconductors) are significantly more likely to grow in the United States. These types of ventures depend to a greater extent on trust in institutions also due to their greater reliance on external financing, contracts and intellectual property protection. Due to these higher opportunity costs, they also have relatively more to lose in the event of a firm failure. Also, STEM degree holders have higher fixed cost, that is, higher initial capital investments, when founding due to the technological complexities compared with other businesses. Tech startups often require high powered computing devices and data storage, labs, and machineries, which require larger initial investments compared with other businesses. In sum, the entrepreneurial activity

that STEM degree holders engage in often involve higher risk, and higher fixed costs, than other majors (e.g., business or law majors). For those with STEM degrees, in addition to the risk and fixed costs, because their ventures tend to rely on the merit of their ideas and innovations more than it relies on their social network ties or connections, they are particularly influenced by beliefs around meritocracy and trust in institutions that will reward on the basis of merit rather than on corruption. Hence, trust in institutions could incentivize STEM majors to pursue entrepreneurship more so than other majors.

Wadhwa et al. (2008) find that 47% of U.S.-born tech entrepreneurs were STEM majors. Individuals with STEM majors from higher tier universities will have higher opportunity costs and will be more likely to undertake more R&D intensive, high potential growth, but higher risk types of entrepreneurial ventures. Such individuals will be relatively more sensitive to the impact of trust in institutions as they will be more likely to rely more heavily on external financing, clear regulatory enforcement, contracts, mergers and acquisitions, initial public offerings, and intellectual property protection, which rely more strongly on expectations of the institutional environment.

In contrast, non-STEM majors may be more likely to start small businesses and with lower opportunity costs are less likely to require high-growth opportunities driven by raising significant external capital or the expectations of generating intellectual property, and less likely to result in M&A or IPO activity as liquidity events. Even for STEM majors from lower tier universities, if they consider entrepreneurship, they may be more likely to start sole proprietorships, technical consulting firms, or other types of small business ventures that are less likely to depend significantly on IP, or to be financed via outside sources of capital (such as VCs) and less likely to experience an M&A or IPO event (Powers and McDougall 2005, Rothaermel et al. 2007, Colombo et al. 2019). As a result, smaller, less complex ventures may be expected to rely to a lesser degree on trust in institutions, due to a lower level of complexity and dependence on contracts (with outside investors, suppliers, partners), the legal or tax systems and the courts to incorporate, resolve disputes or to capture value.

Hypothesis 3. *Increased trust in institutions will be associated with a greater increase in entrepreneurial intentions among (talented) individuals with STEM majors, relative to talented individuals with non-STEM majors.*

3. The Theory in Context

3.1. The Impeachment of the President

Park Geun-hye became South Korea's first female president in February 2013. One of Park's appeals was

her image as a clean leader. Almost all previous South Korean presidents or their direct family members had been involved in some form of bribery or influence peddling and were jailed (Shin 2020). Park was never married, both of her parents were assassinated decades ago, and, other than an estranged brother, she had no close family. She initially received strong political support from conservatives in part due to the legacy of her father, Park Chung-Hee, who is credited for South Korea's economic growth during the 1960s and 1970s (Hahm and Heo 2018). However, her governing style turned out to be quite reclusive, and she tended to hire and consult with only a small number of people (Doucette 2017, Kim 2017a). Her presidency experienced a major crisis when more than 300 people, mostly young students, died while the nation helplessly watched the ferry sink live on TV in April 2014 (Kim 2017b). Park made her first appearance after seven hours of the sinking, and people wondered how she could have let such disaster unfold in front of everyone's eyes. Her popularity declined subsequently (Fermin-Robbins 2018).

In September 2016, news broke about the influence of Choi Soon-sil, Park's long-time friend, who had no official governmental position, over Park. Several news media reported that Choi had access to confidential government documents and information. Evidence that Choi edited and provided feedback on presidential addresses emerged. Continued news investigation found that Choi established several foundations through which she yielded political and financial influence. Taking advantage of her close ties with Park, Choi requested donations from major conglomerates to fund foundation activities. Choi's foundations used those funds to buy horses and fund her daughter's equestrian activities. Park was accused of being involved in this process, as she met with many of the conglomerate owners around the same time. Furthermore, it was revealed that Choi used her influence not only to send her daughter to a prestigious women's university, but also to reprimand a professor who gave her daughter low grades due to poor attendance and performance (Park 2017, Fermin-Robbins 2018). Many people were shocked and infuriated that someone with no official government position could hold so much political and financial influence (Turner et al. 2018). In late October 2016, Park publicly acknowledged her close ties with Choi, and her approval ratings fell to an all-time low of 5% (Fendos 2017, Harris 2017).

The public eventually took to the streets, and on October 29, 2016, the first candlelight protest demanding Park's resignation was held in downtown Seoul. The candlelight protests became a weekly event and grew larger by the week, with crowd estimates ranging from 0.5 to 1.5 million in the late November

protests (Campbell 2018). Park eventually offered to resign as president on November 12, 2016, and to let the National Assembly decide when she should step down to ensure an orderly transfer of power (Choi 2016). However, many considered Park's offer of resignation as an easy way out to avoid impeachment (Turner et al. 2018). Thus, the candlelight protests continued to grow into December of 2016, when the opposition party submitted the "President impeachment proposal" to the National Assembly for violations of the constitution and the law. Six days later on December 9, the National Assembly voted 234 to 56 to impeach President Park, and she was immediately suspended from her executive powers (Park 2017, Turner et al. 2018). The Constitutional Court then had six months to decide on a ruling. The Court's ruling was televised live on all major TV and cable stations and was streamed live on media websites. The Court first announced that Park's actions violated the constitution and the law and that the benefits of dismissing her were overwhelming. It then ruled for Park's impeachment with a unanimous 8-0 vote (Lim 2017).

3.2. Impeachment, Trust in Institutions, and the Intent to Pursue Entrepreneurship

As many of the Constitutional Court Justices held conservative and right-of-center views, which generally aligned with the conservative party of President Park, the unanimity of the vote came as a surprise to many people (Shin and Moon 2017). The Court's unanimous decision to impeach Park quickly subdued not only the proimpeachment but also the anti-impeachment protests.

There is a general perception that a unified decision by the court will be met with wider public support compared with a divided one. In fact, in one of the most famous U.S. Supreme Court decision, *Brown v. Board of Education*, was decided on a unanimous vote, because the Court itself believed that a unified decision was important to unifying the public's perception on the issue (Salamone 2014). Research in political science that examines the relationship between the public and the court finds that the court may indeed influence public opinion (Hoekstra 2003). Bartels and Mutz (2009) find that the Supreme Court may have more influence on public opinion than the Congress in the United States. Gibson et al. (2005) show that institutional legitimacy, and especially the Supreme Court, influences people's willingness to accept public policies that they oppose. Stoutenborough et al. (2006) show that Court decisions do influence public opinion, but is a function of the salience of the issue and political context.

The media and news surrounding the presidential impeachment process was an event that all South Korean adults would have been aware of and as such

the unanimous decision by the Constitutional Court would have likely influenced public opinion. The Court in explaining their unanimous agreement emphasized that their decision was based only on the factual evidence related to influence peddling and corruption only, rather than various speculative claims that were often subject to disagreement between the conservatives and the liberal. Despite the Court being consisted of a conservative majority, they voted to impeach a conservative president. The decision likely influenced public perception in the direction of increasing trust in the government. Trust would have not just increased in the Constitutional Court, but the government in general because the ouster of the president was the outcome of a process that was initiated by the people's movement. The massive peaceful protests by the people of all ages and gender was what led to impeachment and thereby the ouster of Park. In essence, it was the people's movement that initiated the replacement of the president and the government followed through both in terms of congressional and judiciary procedures. In short, the peaceful movement by the people culminated in the government abiding by the people's will. The impeachment of Park and the establishment of the new government was in essence sanctioned by the people (Shin and Moon 2017). Furthermore, the incident led people to believe that the favors and kickbacks between the government and conglomerates were finally coming to an end with the possibility of one or several of the conglomerates going to jail.

To South Koreans, the scandal surrounding Park and Choi was a flashback of corruption at the highest political office. Almost all previous South Korean presidents or their direct family members had been involved in some form of bribery or influence peddling and were jailed. In previous cases it was the conservative (liberal) administration that succeed the previous liberal (conservative) administration that prosecuted and imprisoned the presidents. It was political revenge that took corruption down, and as such the cycle of corruption and revenge continued as trust in institutions diminished. However, the impeachment of Park exemplified how the people's demand could directly punish and take down corrupt leaders. The amalgamation of all these changes would have led the unanimous impeachment ruling to increase people's trust in institutions.³

In essence, the impeachment was a culmination of peaceful people's movement, democratic congressional processes, and just judiciary procedure with a unanimous outcome, which not only took down a corrupt leader, but also punished the government and conglomerate ties. The combination of the above made the impeachment case a unique event that increased people's trust in the government. If the decision had been in opposition or misaligned with the

people's movement or with public opinion, it would not have had the effect of increasing generalized trust in institutions. The literature on trust in government within political science journals show that a great deal of literature has focused on establishing the link between the actions of government officials as well as government performance and trust in government (Feldman 1983, Williams 1985, Citrin and Green 1986, Erber and Lau 1990, Miller and Borrelli 1991, Hetherington 1998, Chanley et al. 2000, Citrin and Luks 2001, Keele 2007, Craig 2019). This stream of work also establishes that trust in government becomes less salient when the economy is doing well and more salient when crime rates increase and when there is extensive media coverage of political scandals (Keele 2005).

Finally, the impeachment was also a punishment for rent-seeking activities and installed beliefs that outright rent-seeking and extortion would no longer be accepted in future governments. In addition to increasing trust in the government, this would directly increase the expected returns for entrepreneurs. Moreover, as Baumol (1990) and Murphy et al. (1991), point out, if the returns to rent-seeking goes down, talented people would move away from those activities, and move toward to more productive entrepreneurship.

4. Data and Empirical Model

4.1. The Pre and Post Impeachment Surveys

We conducted two online surveys in South Korea. The first survey was conducted between March 1 and March 7, 2017, shortly before the constitutional court's ruling on March 10, 2017. The postimpeachment survey was conducted between April 3 and April 7, 2017. The survey firm we used maintains a pool of panelists, and we randomly sampled 2,000 individuals across four age groups (20s, 30s, 40s, and 50s) and additionally sampled 1,000 college students. We oversample college students to better examine the entrepreneurial intent of people entering the job market. After excluding respondents who did not complete either survey or completed in a time too short to be reliable, we end up with a panel of 2,749 respondents. The Appendix provides more detail on the survey implementation. Table 1 presents the summary statistics. We discuss the key variables below. A growing literature use online survey companies such as Amazon Mechanical Turk and SurveyMonkey to recruit survey panelists. Though the respondents from these types of online surveys are not necessarily representative of the population, they do provide a sample that can target a specific subset of the population based on the research question, which in our case was to examine entrepreneurial intent of those soon to enter the labor market and those currently active in the workforce. In Appendix Table 1 we compare some basic

Table 1. Summary Statistics

Variable	Mean	Std. Dev.	Min	Max	Obs
Change in the probability of starting a business within 5 years	-0.27	21.29	-100	100	2,749
Probability of starting a business within 5 years	31.34	27.70	0	100	2,749
Change in trust in the government	0.00	0.99	-4.33	4.61	2,749
Graduated/attend a top 5 university	0.05	0.23	0	1	2,749
Graduated/attend a top 7 university	0.09	0.28	0	1	2,749
Graduated/attend a top 10 university	0.11	0.31	0	1	2,749
Graduated/attend a top 30 university	0.30	0.46	0	1	2,749
Engineering/science major	0.31	0.46	0	1	2,749
Business major	0.15	0.35	0	1	2,749
Law major	0.01	0.10	0	1	2,749
Medicine major	0.05	0.21	0	1	2,749
Education major	0.03	0.18	0	1	2,749
Arts/sports major	0.06	0.23	0	1	2,749
Humanities and social science major	0.39	0.49	0	1	2,749
Female	0.50	0.50	0	1	2,749
Age	35.09	11.85	20	59	2,749
Political spectrum	3.58	1.15	1	7	2,749

characteristics of our sample relative to the South Korea's Economic Activity Population Census. Males comprise slightly over half of our sample at 50.21%. This is slightly lower than the 57.5% of the economic census. Individuals with at least a college degree are more represented in our sample than the general population, and in terms of geography respondents in Seoul are overrepresented, but the rest of the respondents are similarly distributed across the other regions with the census data.

4.2. Change in Trust in the Government and Other Institutions

Although there are many types of institutions that individuals may trust to varying degrees, our focus in this paper is on general trust in the institutions of government. This is distinct from trust in nongovernmental institutions such as the media. It is also closest to the concept of generalized trust in institutions as it has been discussed in literature in economics and

political science (Stevenson and Wolfers 2011). In both surveys, we ask "please rate your trust in the following institutions" and list government, politicians, civil servants, Supreme Court, Constitutional Court, prosecutor, police, media, and chaebols (large conglomerates). We ask respondents to rank their answers to each institution in a 1 to 7 scale, where 1 indicates "do not trust at all" and 7 indicates "fully trust." Figure 1 presents the distribution of people's trust in institutions from both surveys. The distributions are both skewed to the right, indicating that people are generally distrustful of the government. However, trust in institutions increases postimpeachment as the distribution shifts to the right. The mean change in people's trust in institutions is positive at about 0.33 and is statistically significant. Figure 2 presents the average and standard deviation of people's change in trust in institutions. People's trust increased in almost all institutions with the largest increase in the courts followed by the government in general. Trust in politicians and prosecutors increased significantly as well. Institutions that were directly involved in the impeachment process gained more trust. There was no significant change in trust for civil servants and significant but small positive changes for the institutions outside of government, such as for media, law enforcement, and conglomerates. Because trust in government is the closest measure to the broader concept in the prior literature of generalized trust in institutions, we subsequently focus on this as our measure of trust in (regulatory) institutions as it is correlated with the measures of trust in the various specific institutions within government, such as the courts, politicians, or civil servants (Appendix Table 2). Moreover, despite the correlation between trust in government and trust in these other institutions, trust in government is also empirically most strongly and significantly related to

Figure 1. Trust in the Government

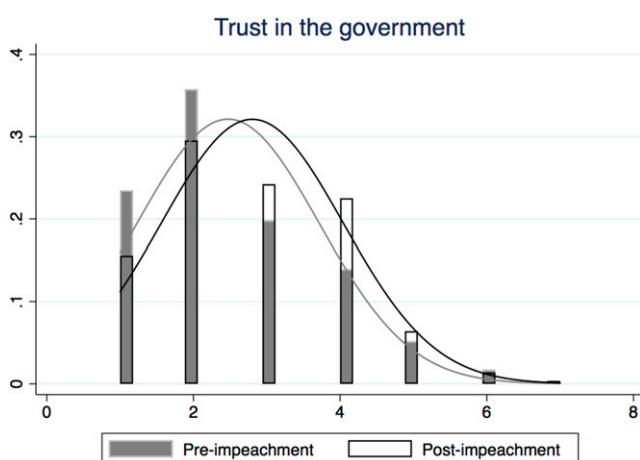
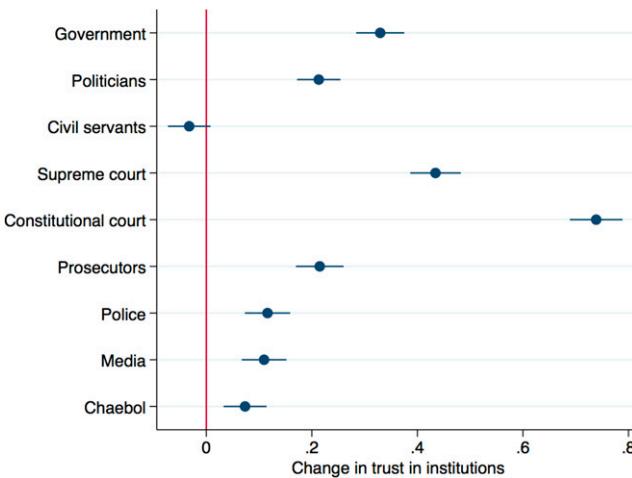


Figure 2. (Color online) Change in Trust in Institutions



Note. The dot represents the average of the change in people's trust in each institution and the bar indicates the 95% confidence intervals.

entrepreneurial intention, consistent with the literature's emphasis on generalized trust in institutions. We discuss this aspect in more detail in Section 5.

4.3. Entrepreneurial Intent

We measure entrepreneurial intent by asking each respondent the likelihood that he or she would start a business in 5 years. I ask them to choose a response from 0 to 100% in 10% increments. The average was 31.34% in the preimpeachment survey. The mean difference between the post and pre impeachment survey is -0.27% point and is not significantly different from zero. At an aggregate level, the impeachment seemed to have had no effect on changing people's entrepreneurial intents. However, as we show later there is substantial heterogeneity in the change in entrepreneurial intent based on one's change in trust in government.

4.4. Education, College and Major

We collect detailed information on the respondent's education level. We first ask the education level across seven categories: less than high school, graduated high school, attend a two-year college, graduated a two-year college, attend a four-year college, graduated a four-year college, and graduate school or above. If one selects college or above, we ask the name of the institution and major. We then create dummy variables that indicate whether one attended or was attending a top 7, top 10, and top 30 university using university rankings based on the Times Higher Education Rankings averages over three years (2015 to 2017). Appendix Table 3 presents the rankings. Nine percent of the respondents graduated from or was attending a top 7 university, and 30% a top 30 university. We also categorize the major. We examine

all the major listed in the survey and categorize the majors into seven categories: Engineering/Science (STEM), Business, Law, Medicine, Education, Arts/Sports, and Humanities and Social Sciences. Humanities and Social Sciences majors comprise 39% of the sample followed by Engineering and Science majors at 31%, Business majors at 15%, Arts/Sports at 6%, Medicine at 5%, Education at 3% and Law at 1%.

4.5. Other Controls Variables

Other control variables are as follows. Respondent region was selected across the 12 provinces or province level cities. Respondents selected their own or household (if still a student) income level across nine income bins. Employment status was defined as employed, self-employed, unemployed looking for work, or unemployed not looking for work. We ask where one lies along the liberal-conservative political spectrum, where 1 is "Very liberal" and 7 is "Very conservative." Individual risk preference was based on the answer to a question that asks where the respondent's life views lie along a scale from 1 to 10, where 1 is "I tend to avoid risk and choose the most safe options" and 10 is "I appreciate risk and challenges."

4.6. Empirical Model

Consider the following regression equation

$$\Delta y_i = \alpha + \beta \Delta Trust_i + X_i \pi + \varepsilon_i \quad (1)$$

where Δy_i represents individual i 's change in the probability of starting a business within 5 years, and $\Delta Trust_i$ is the change in i 's trust in government before and after impeachment. X_{ijk} is the vector of control variables that include gender, political beliefs, age, region, employment status, education level, and income level fixed effects. The coefficient β estimates the relationship between change in trust in government and the change in entrepreneurial intent. However, Equation (1) does not capture the differential relationship by the ranking of the university or major. To examine these margins, we interact the trust variable with university rank and major. Specifically, we run the following regression:

$$\begin{aligned} \Delta y_i = & \alpha + \beta_1 \Delta Trust_i + \beta_2 TopK_i + \beta_3 STEM_i + \beta_4 TopK_i \\ & * STEM_i + \beta_5 \Delta Trust_i * TopK_i + \beta_6 \Delta Trust_i * STEM_i \\ & + \beta_7 \Delta Trust_i * TopK_i * STEM_i + X_i \pi + \varepsilon_i \end{aligned} \quad (2)$$

where $TopK_i$ is a dummy variable indicating whether the individual attends or graduated from a top K university, where $K=5, 7, 10$, and 30 , and $STEM_i$ is a dummy variable equal to one if the respondent is/was a STEM major. The coefficient on the interaction term $\Delta Trust_i * TopK_i$, that is, β_5 estimates the degree to which the relationship in Equation (1) differs for top university students. The coefficient on the interaction

term $\Delta Trust_i * STEM_i$, that is, β_6 estimates the degree to which the relationship in Equation (1) differs for STEM majors. Our main coefficient of interest is β_7 , the estimate on the triple interaction term, which can tell whether the relationship between trust in government and entrepreneurial intent is different for STEM majors from top universities or put differently, for top university students with STEM majors.

5. Results

5.1. Trust in Institutions of Government and Entrepreneurial Intent

Before examining the relationship between trust in government and entrepreneurial intent, we first examine whether our measurement of individual change in trust in government was indeed induced by the impeachment ruling. This is quite likely given the short time horizon between the pre and post impeachment surveys and that impeachment was the only major event between the two surveys. Nonetheless, we empirically examine this in Table 2. We test whether the individual level change in trust in the government is consistent with one's belief that impeachment changed overall trust in society. In the postimpeachment survey we ask the degree to which each respondent believes that impeachment improved overall trust in the society in 1 to 7 scale. Table 2 column (3), which includes the full set of control variables, indicates that this measure and the individual change in trust in government is very strongly correlated, and is robust to additionally controlling for one's preference for impeachment in the preimpeachment survey (column (4)), and one's initial trust in the government (column (5)).

Table 3 presents the relationship between change in trust in various institutions and entrepreneurial intent. We gradually add the control variables in columns (1) to (5), and then include the main independent variable, change in trust in government, in column (6). All columns control for a rich set of individual characteristics using fixed effects for political beliefs, gender, birth year, education level, region, income level, and employment status. Column (1) indicates that the initial probability of starting a business is negatively related to the change in probability of starting a business within 5 years. This relationship stays stable in all regressions. We add risk preference in column (2) and onwards, and as expected risk preference is positively related to entrepreneurial intent.

We then add the trust variables. In column (3) we include changes in trust in politicians, civil servants, and the courts. Recall that trust in the Constitutional Court increased the most as it was in charge of adjudicating the impeachment ruling. The estimate on trust in politicians is positive and significant. However, none of the estimates on trust in the other institutions, including the Constitutional Court are significant. In column (4) we additionally include trusts in the prosecutor and the police, and in column (5) trusts in the media and conglomerates. None of the added trust variables are significantly related to entrepreneurial event. Finally, in column (6) we examine the relation between entrepreneurial intent and trust in government. Trusts across various institutions are likely to be highly correlated, which could dilute the effect of each institution. In Appendix Table 2 we examine the correlations across institutions. The correlation between the change in trust in government and the

Table 2. Impeachment and the Change in Trust in the Government

	(1)	(2)	(3)	(4)	(5)
Change in the trust in the government					
Impeachment improved overall trust in society (postimpeachment survey)	0.123*** (0.0174)	0.119*** (0.0173)	0.112*** (0.0177)	0.0797*** (0.0191)	0.0638*** (0.0164)
The president should be impeached (preimpeachment survey)				0.392*** (0.0906)	0.0320 (0.0777)
Initial trust in the government					-0.406*** (0.0150)
Political belief fixed effect	No	No	Yes	Yes	Yes
Gender fixed effect	No	Yes	Yes	Yes	Yes
Age fixed effect	No	Yes	Yes	Yes	Yes
Region fixed effect	No	Yes	Yes	Yes	Yes
Employment status fixed effect	No	Yes	Yes	Yes	Yes
Education level fixed effect	No	Yes	Yes	Yes	Yes
Income level fixed effect	No	Yes	Yes	Yes	Yes
<i>R</i> ²	0.023	0.053	0.054	0.062	0.278

Notes. Number of observations is 2,749. Robust standard errors are in parentheses.

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

Table 3. Change in the Perception of Institutions and Entrepreneurial Intentions

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Change in the probability of starting a business within 5 years						
Change in the trust in the government						0.924 ⁺ (0.534)
Initial probability of starting a business within 5 years	-0.299*** (0.0155)	-0.313*** (0.0164)	-0.313*** (0.0164)	-0.313*** (0.0165)	-0.313*** (0.0165)	-0.312*** (0.0165)
Risk preference		1.594** (0.553)	1.608** (0.552)	1.620** (0.553)	1.622** (0.554)	1.598** (0.554)
Change in the trust in politicians			1.125* (0.471)	1.150* (0.476)	1.093* (0.483)	0.674 (0.533)
Change in the trust in civil servants			0.638 (0.467)	0.550 (0.475)	0.533 (0.486)	0.408 (0.490)
Change in the trust in the Supreme Court			0.0124 (0.493)	0.0288 (0.501)	0.0300 (0.504)	-0.0344 (0.508)
Change in the trust in the Constitutional Court			0.577 (0.504)	0.585 (0.530)	0.608 (0.530)	0.571 (0.532)
Change in the trust in the prosecutor				-0.568 (0.531)	-0.652 (0.536)	-0.708 (0.536)
Change in the trust in the police				0.735 (0.544)	0.572 (0.559)	0.551 (0.560)
Change in the trust in the media					-0.112 (0.464)	-0.166 (0.466)
Change in the trust in chaebols					0.542 (0.502)	0.496 (0.501)
Base controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,749	2,749	2,749	2,749	2,749	2,749
R ²	0.170	0.172	0.179	0.179	0.180	0.181

Notes. Base controls includes political beliefs fixed effects, gender fixed effect, age fixed effects, region fixed effects, employment status fixed effects, education level fixed effects, and income level fixed effects. Number of observations is 2,749. Robust standard errors are in parentheses.

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ⁺ $p < 0.1$.

change in other institutions range from 0.26 for the Constitutional Court to 0.59 for politicians.

Despite the inclusion of multiple trust variables only the estimate on trust in government is positive and significant (beta = 0.924, SE = 0.534). A 1% point increase in trust in government is related to about 0.92% point increase in entrepreneurial intent within 5 years, providing evidence of support for H1.⁴

5.2. Trust in Government and the Entrepreneurial Intent of Talent

We next examine how the relationship between trust in government and entrepreneurial intent varies by university ranking in Table 4. In columns (1) to (4) we examine whether the relationship differs for top university students. There is no significant difference in the change in entrepreneurial intent between those who attend(ed) a top university or not. None of the interaction terms are statistically significant as well, which indicates that the relationship between trust in government and entrepreneurial intent is also not different between individuals from a top university or not, which fails to provide support for Hypothesis 2.

In column (5) we examine whether the relationship differs for STEM majors. The change in entrepreneurial intent on average is lower for STEM majors. However,

as the interaction term indicates there is no significant difference between trust in government and entrepreneurial intent for STEM majors. However, the specification in column (5) does not differentiate between STEM majors from top universities and nontop universities and the specifications in columns (1) to (4) do not differentiate between top university students of STEM majors and non-STEM majors. However, as argued in Hypothesis 3, the perceived costs of entrepreneurship could differ for STEM majors from top universities. For instance, STEM majors from top universities are considerably more likely to be hired in leading technology firms or conglomerate of South Korea, and hence the opportunity cost for entrepreneurship is likely higher for them.

To better get at such differential effects we next examine whether the relationship between trust in government and entrepreneurial intent is different for STEM majors from top universities or put differently, for top university students with STEM majors. This effect is captured by the estimate on the triple interaction terms, the STEM major dummy*the top university dummy*change in trust in government, in column (6) to (9) for different university rankings. We experiment with different rankings, including the top 5, top 7, top 10, and top 30. The coefficient estimates are

Table 4. Change in Trust and the Allocation of Talent to Entrepreneurship

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Change in the trust in the government	1.615*** (0.426)	1.569*** (0.429)	1.616*** (0.434)	1.752*** (0.473)	1.516** (0.487)	1.589** (0.498)	1.595** (0.502)	1.635** (0.507)	1.925*** (0.539)
Graduated/attend a top 5 university	0.591 (1.685)					-0.147 (2.077)			
Change in the trust in the government × Graduated/attend a top 5 university	0.697 (2.007)					-1.715 (2.120)			
Graduated/attend a top 7 university		0.940 (1.453)					1.197 (1.876)		
Change in the trust in the government × Graduated/attend a top 7 university		1.077 (1.690)					-1.119 (1.934)		
Graduated/attend a top 10 university			-0.0187 (1.303)					0.198 (1.644)	
Change in the trust in the government × Graduated/attend a top 10 university			0.291 (1.475)					-1.301 (1.686)	
Graduated/attend a top 30 university				0.0763 (0.912)					-0.313 (1.135)
Change in the trust in the government × Graduated/attend a top 30 university				-0.431 (0.978)					-1.599 (1.201)
STEM major					-1.791* (0.877)	-1.871* (0.906)	-1.715 ⁺ (0.924)	-1.692 ⁺ (0.936)	-2.252* (1.101)
Change in the trust in the government × STEM major					0.389 (0.933)	0.0697 (0.955)	-0.111 (0.965)	-0.0988 (0.973)	-0.615 (1.104)
STEM major × Graduated/attend a top 5 university						1.675 (3.327)			
Change in the trust in the government × STEM major × Top 5 university						7.950* (3.948)			
STEM major × Graduated/attend a top 7 university							-0.822 (2.730)		
Change in the trust in the government × STEM major × Top 7 university							7.127* (3.182)		
STEM major × Graduated/attend a top 10 university								-0.950 (2.454)	
Change in the trust in the government × STEM major × Top 10 university								5.806 ⁺ (2.991)	
STEM major × Graduated/attend a top 30 university									1.384 (1.769)
Change in the trust in the government × STEM major × Top 30 university									3.764 ⁺ (2.061)
Initial entrepreneurship intention	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Risk preference	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,749	2,749	2,749	2,749	2,749	2,749	2,749	2,749	2,749
R ²	0.178	0.178	0.178	0.178	0.180	0.181	0.181	0.181	0.181

Notes. Base controls include political beliefs fixed effects, gender fixed effect, age fixed effects, region fixed effects, employment status fixed effects, education level fixed effects, and income level fixed effects. Number of observations is 2,749. Robust standard errors are in parentheses.

***p < 0.001; **p < 0.01; *p < 0.05; ⁺p < 0.1.

large and significant at 7.127 with a standard error of 3.182 for the top 5, and 7.127 with a standard error of 3.182 for the top 7. The latter estimate implies that a 1% increase in trust in government results in 7.127% point higher entrepreneurial intent for STEM majors in top universities relative to other majors in those universities. The estimate also implies that a 1% increase in trust in government results in 7.127% point higher entrepreneurial intent for STEM majors in top 7 universities relative to STEM majors in nontop 7 universities. The estimate on the triple interaction term decreases in magnitude as we expand the number of

top universities but remains significant at the 10% level. The results in Table 5 indicates that the positive effect trust in government has on entrepreneurial intent is centered around STEM majors in top universities, and empirically supports Hypothesis 3.

5.3. Sensitivity of Results Based on Major

Next, we examine whether the relationship in Table 4 is unique for STEM majors. Table 5 presents the results from Table 4 column (5) but for the different majors. Similar to Table 4, we are primarily interested in the coefficient estimate on the triple interaction

Table 5. Sensitivity of Results Based on Major

	(1)	(2)	(3)	(4)	(5)	(6)
Change in the probability of starting a business within 5 years						
Major = Business	1.572*** (0.466)	1.593*** (0.433)	1.598*** (0.439)	1.633*** (0.438)	1.420** (0.431)	1.602** (0.590)
Graduated/attend a top 7 university	0.741 (1.592)	0.761 (1.465)	0.654 (1.488)	0.599 (1.472)	1.278 (1.443)	1.388 (1.711)
Change in trust in the government × Graduated/attend a top 7 university	1.312 (2.035)	1.060 (1.697)	1.347 (1.730)	0.634 (1.739)	1.447 (1.704)	2.637 (1.973)
Major	3.234** (1.157)	-1.459 (3.234)	0.566 (1.665)	-0.296 (2.474)	5.025** (1.669)	-1.808* (0.885)
Change in trust in the government × Major	-0.0739 (1.185)	-2.800 (2.511)	-0.696 (2.178)	-1.575 (2.285)	2.408 (1.860)	-0.0370 (0.857)
Major × Graduated/attend a top 7 university	0.324 (3.528)	14.81 ⁺ (8.583)	4.966 (5.742)	8.695 (6.883)	-21.37 (20.39)	-2.416 (2.981)
Change in trust in the government × Major × Top 7 university	-0.730 (3.595)	3.491 (16.11)	-3.832 (7.674)	9.815 ⁺ (5.571)	-28.15 ⁺ (16.84)	-6.723* (3.425)
Initial entrepreneurship intention	Yes	Yes	Yes	Yes	Yes	Yes
Risk preference	Yes	Yes	Yes	Yes	Yes	Yes
Base controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,749	2,749	2,749	2,749	2,749	2,749
R ²	0.181	0.179	0.179	0.180	0.183	0.181

Notes. Base controls include political beliefs fixed effects, gender fixed effect, age fixed effects, region fixed effects, employment status fixed effects, education level fixed effects, and income level fixed effects. Number of observations is 2,749. Robust standard errors are in parentheses.

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ⁺ $p < 0.1$.

term. We focus on the specification that uses the top 7 universities due to limitations in sample size when we use the top 5 universities, especially when we start incorporating majors into the analysis.⁵ The coefficient estimates on the triple interaction terms for business, law, and medicine majors are not significant. However, the estimate for humanities and social sciences majors is negative and significant. The estimate is also negative for arts and sports majors though marginally significant at the 10% level. Because each estimate is relative to all the other majors in the top 7 universities, the negative estimate could be driven by the positive estimate for STEM majors. The estimate is positive for education majors and marginally significant at the 10% level. Moreover, the cell sizes for education majors and arts and sports majors are already small and interacting those majors with the top 7 university dummy return a very small set of observations. Overall, Tables 4 and 5 together indicate that STEM majors from top universities are the ones who exhibit a significant positive differential relationship between trust in government and entrepreneurial intent.

5.4. Robustness Checks

Finally, we present additional results and robustness checks. We first examine whether our core findings are more pronounced for the young. In particular, we separately examine those in their 20s, that is those who are not yet in the labor market or early in their careers. This population may be more likely to consider entrepreneurship, relative to the older people who have built careers and established families and find entrepreneurship riskier. This could especially be the case in societies like South Korea where labor market mobility for midcareer workers are relatively low. Table 6 column (1) presents the results. Indeed, the estimate on the triple interaction term is large and statistically significant at 10.87 with a standard error of 4.56. This is considerably larger in magnitude than what we found in the full sample result of Table 4 column (5). Moreover, when we examine the rest of the sample (column (2)), that is, 30 years old or older, we do not find any significant effect.

One concern may be that the corruption scandal between Park and the large businesses in Korea created an environment that rendered people to lose interest in working at large businesses. In other words, the results of our findings could be driven by people's decline in preference for working in large businesses rather than the increase in trust in government. To examine this, we examine how people's job preferences for large companies changed. We asked what people's most preferred job would be in both surveys. In columns (3) and (4), we examine how the share of people who indicated that large businesses are their most preferred job changed pre and post

impeachment. The triple interaction terms are not statistically significant and if any the estimates are positive. On the other hand, if we examine how the share of people who indicated that civil servants or teachers were their most preferred job changed between the two surveys (columns (5) and (6)), we find that the triple interaction terms are negative and statistically significant for the younger respondents. This indicates that there is a negative relationship between trust in government and preference for civil servant and teacher jobs among STEM majors in top universities. Hence, our core results are unlikely to be driven by potentially productive entrepreneurs becoming uninterested in large businesses but rather them becoming less interested in South Korea's most coveted and safe jobs—civil servants and teachers.

Another concern may be that people could have expected the economy to grow faster after impeachment. However, the expectation of economic growth could also induce people to think that there would be better job prospects and employment opportunities. Hence, the prospect of better economic times would not necessarily imply that entrepreneurship would be more fruitful, since employment opportunities and outside options could increase. We find that the change in entrepreneurial intent before and after impeachment was negative. As indicated in the summary statistics table (Table 1), the mean value of the change in the probability of starting a business within five years is -0.27. So entrepreneurial intent did not increase on average, but the relationship between the change in trust in government and entrepreneurial intent increased specifically and differentially for STEM students from elite colleges, which is unlikely due to a general expectation of economic growth.

5.5. Entrepreneurship Rates by Colleges as Supporting Evidence

Though our paper focuses on entrepreneurial intent, in this section we examine college student entrepreneurship as supporting evidence. We filed an open information request to the Ministry of SME and Startups and received data for the recent years (2017–2019). One limitation of the data is that it provides student level entrepreneurship only at the university level and not by majors. Nonetheless, we are able to indirectly support some of our key ideas by using university rank and characteristics in particular, whether the university is a Science and Technology University. Science and Technology Universities primarily recruit STEM students and offer majors related to the fields of STEM. We first compile student entrepreneurship rates for each university in our top 30 list for each year. Appendix Table 6 presents the raw data and we divide the number of startups by enrollment to get an entrepreneurship rate by university and year. In

Table 6. Robustness Tests

	(1)	(2)	(3)	(4)	(5)	(6)
	Change in "Most preferred job is"					
	Age 20s only	Age above 30	Full sample	Work for large business	Age 20s only	Civil servant or teacher
Change in trust in the government	1.647*	1.610*	0.00317	-0.00565	0.00900	0.00382
Engineering/science major	(0.813)	(0.647)	(0.00844)	(0.0145)	(0.0132)	(0.0186)
Graduated/attend a top 7 university	-1.564 (1.198)	-2.112 (1.450)	-0.00604 (0.0182)	-0.0196 (0.0300)	-0.0223 (0.0238)	-0.0291 (0.0315)
Change in trust in the government × Engineering/science major	0.253 (2.692)	1.245 (2.575)	-0.0103 (0.0365)	-0.00382 (0.0700)	-0.0268 (0.0497)	-0.0351 (0.0654)
Change in trust in the government × Graduated/attend a top 7 university	-4.237 (3.023)	-1.532 (1.300)	0.948 (1.462)	-0.0308 ⁺ (0.0181)	-0.0320 (0.0307)	-0.0341 (0.0219)
Engineering/science major × Graduated/attend a top 7 university	10.87*	3.070 (3.809)	-3.742 (3.841)	0.0112 (0.0579)	-0.0484 (0.101)	0.0213 (0.0205)
Change in trust in the government × Engineering/science major × Top 7 university	(4.559)	4.368 (4.537)	0.0827 (0.0815)	0.0986 (0.111)	-0.123 (0.0911)	0.118 (0.0775)
Initial entrepreneurship intention	Yes	Yes	Yes	Yes	Yes	Yes
Risk preference	Yes	Yes	Yes	Yes	Yes	Yes
Base controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,266	1,482	2,749	1,266	2,749	1,266
R ²	0.192	0.192	0.032	0.043	0.034	0.043

Notes. Base controls include political beliefs fixed effects, gender fixed effect, age fixed effects, region fixed effects, employment status fixed effects, education level fixed effects, and income level fixed effects. Number of observations is 2,749. Robust standard errors are in parentheses.

***p < 0.001; **p < 0.01; *p < 0.05; ⁺p < 0.1.

Appendix Figure 1 we plot student entrepreneurship rates by university rank over time. 2017 is when the impeachment happened, and hence by 2018 and 2019 students would have processed any changes in their trust in government and institutions. There is a jump up in student entrepreneurship rate in the top 10 universities, but not so much in the top 11 to 30 universities. Furthermore, the increase in the rate of entrepreneurship is higher in the higher ranked universities. Because we cannot compare STEM versus non-STEM majors, as an alternative we compare Science and Technology Universities (KAIST and POSTECH) and non-Science and Technology Universities (Seoul National, Korea, Yonsei University) among the top 5 universities. Appendix Figure 2 presents the results. Though there is an uptick in student entrepreneurship in Seoul National, Yonsei, and Korea University post 2017, the magnitudes are dwarfed by that of the Science and Technology Universities. These evidences taken together are consistent with our main finding in Table 4. Another indirect way to support our key finding is to examine the student entrepreneurship rates from higher-ranked and lower-ranked Science and Technology Universities. In Appendix Figure 3 we plot the average student entrepreneurship rate for KAIST and POSTECH (the top 2 and 3 universities in the list) and Seoul National University of Science and Technology (ranked 30th in the list). Though these are all universities that focus on STEM, we can see that the rate of student entrepreneurship is consistently higher for the top Science and Technology Universities. Moreover, the jump in entrepreneurship after impeachment is also considerably higher for the top Science and Technology Universities, which supports the key finding of this paper.

6. Discussion and Conclusion

The impeachment context we examined in this paper was a specific and rare event and we acknowledge some limitations and that a discussion of generalizability is merited. First, due to the nature of the natural experiment we utilize, our results focus on trust in governmental institutions. Our results may or may not generalize to trust in other types of nongovernmental institutions, such as the media, and may not generalize to trust in more specific branches of government (i.e., the Centers for Disease Control and Prevention, the police, or the Veterans Administration). We also cannot be certain whether the one-month increase in generalized trust in the institutions of government lasted or disappeared after a certain amount of time or when opposite events—for example, scandals involving the senior government officials in the postimpeachment administration—occurred. This is a limitation we share with many papers in the stream

on institutional environments and organizations, where we often study a single event or reform, but rarely (perhaps because of the difficulty involved) do we study the cumulative impact of subsequent sequences of events or reforms that are “opposite-signed.” The rare exception is occasionally when the sudden repeal of a bill allows for a second natural experiment (Marx et al. 2009). We would expect that when subsequent scandals occur, that this begins to again erode trust in institutions.

Tests of generalized institutional trust in other settings and after other types of events are needed as follow-on work to systematically understand where the theory will generalize. There may very well be less rare events that also increase generalized trust in institutions (media coverage of other judicial outcomes in lower courts, or instances of politicians putting the national interest above their own, etc.). Or conversely, smaller acts of corruption by politicians or in interaction with local government in everyday life could gradually erode trust in institutions, with the opposite effects. The effect sizes may be smaller, but cumulatively, they may be just as important. As in the case of the Korean Wave cultural phenomenon (Chua and Iwabuchi 2008, Kwon and Kim 2014), our theoretical mechanism may be one critical piece of a larger theoretical story about institutional changes removing repression, creating more equality in economic opportunities, and the virtuous cycle of increased trust and confidence that then leads to increases in entrepreneurship. The large, sudden event we examined in this paper is simply more useful from a research design standpoint. Though exploring different events and generalized trust is beyond the scope of our current paper, we do believe that given the prior work on generalized trust, that this theoretical mechanism is broadly applicable even beyond our sudden, quasi-natural experimental setting. However, the extent to which the size of the effect is large enough to detect at scale and the types of organizational behaviors or career decisions it may alter could depend on the specifics of the event. Entrepreneurial intent is the subject of our study, however, generalized trust in institutions could be studied in follow-on work to ours in a range of “scales” and outcomes. Digital platform owners also create and maintain institutions of governance (often via algorithms) and generalized trust may be important for entrepreneurial activity of complementary in this context as well (Koo and Eesley 2021). We hope our study helps scholars extend this stream in future research.

Recent surveys suggest that society’s trust in business, government and public institutions are at historic lows (Edelman 2014). Numerous significant events have unsettled individuals’ trust in society’s institutions and organizations. Even before the 2008 financial crisis, the failure of credit rating agencies,

and the bailout of failing banks, over time trust has been further eroded by further failures among regulators and governments, including scandals around Enron, AIG, LIBOR, Fannie Mae and Freddie Mac, FAA and the Boeing 737, the U.S. Veteran's administration, among a multitude of other, more recent examples. Prior work shows that a loss of trust is troubling for organizations since trust supports effective stakeholder relationships, transactions and market participation, as well as organizational development and effectiveness (e.g., Fukuyama 1995, Dirks and Ferrin 2001, Dyer and Chu 2003, Hiatt et al. 2015, Hiatt and Carlos 2019). However, does this loss of trust have implications for new organizations and particularly for the key driver of dynamism in the economy—entrepreneurship?

Whether entrepreneurship generates economic growth depends on the mix of productive and unproductive entrepreneurship in the economy. The incentive structure embedded in each society affects whether talented people become entrepreneurs and whether they engage in productive or unproductive, that is, rent-seeking, entrepreneurship. We examine how trust in institutions, in particular, trust in the regulatory institutions of government, affects the entrepreneurial intentions of potentially productive entrepreneurs. We utilize the unique event surrounding the impeachment of South Korea's previous president. The event improved people's trust in the institutions because it was ultimately the people's protests and demands that led to the impeachment of the president for influence peddling and extracting personal rents from businesses. By surveying the same individuals before and after the impeachment ruling, we identify people's changes in trust in institutions. We find that increased trust increases one's intent to start a business within five years. Moreover, we show that the relationship between trust in the institutions and entrepreneurial intention is significantly stronger for engineering majors from top universities.

6.1. Contributions to Institutional Theory

Institutions play an important part in determining economic activity and growth in society (Murphy et al. 1991, Russo 2001, Acemoglu et al. 2002). Previous research at the intersection of institutions and entrepreneurship has demonstrated the role that institutional change plays in shaping not only the rate (Klapper et al. 2006, Kerr and Nanda 2009, Klapper et al. 2010), but also the quality of entrepreneurship in the economy (Sine and David 2003, Hiatt et al. 2009, Eesley et al. 2018). Institutional theorists have helped our understanding of the microlevel processes of institutional change (Colyvas and Powell 2006, Colyvas 2007, Colyvas and Maroulis 2015). Subsequently, recent work shows that certain institutional changes have been shown to shift the type of entrepreneurship toward more innovative ventures

(Kenney and Patton 2009, Huang et al. 2017). Prior literature has shown that sufficiently lowering institutional barriers to growth (Eesley 2016) and barriers to failure (Eberhart et al. 2017) can increase the likelihood of higher human capital individuals starting firms. Understanding what factors encourage such individuals to found firms may result in more productive forms of entrepreneurship (Baumol 1990) and potentially higher rates of economic growth (Murphy et al. 1991).

Prior work has theorized how institutional changes lead to entrepreneurial opportunities and activity (Bosma et al. 2018). Much of this work has focused on regulatory institutional changes (Eesley 2016), with our understanding of nonregulatory, cognitive and normative changes on entrepreneurial behavior in relatively less developed economies (Hiatt et al. 2009, Armanios and Eesley 2021). To our knowledge, thus far, to our knowledge, the role of trust in institutions has largely been ignored in this line of scholarship. Calls in prior literature to fill the gaps in our understanding of how trust is broken or repaired at the institutional level and the implications for entrepreneurship at the individual level, have largely gone unanswered to date (Welter 2012, p. 206). Thus, our results contribute to this rapidly growing stream of literature on informal institutional change and entrepreneurship by further developing institutional arguments regarding the dynamics between institutional trust and entrepreneurship. Although prior work has conceptualized institutional trust, as a macro-level analogy to individual level, interpersonal trust (Shapiro 1987, Bachmann and Inkpen 2011, Bachmann, Gillespie and Priem 2015), relatively little theory is available to guide us conceptually in predicting the consequences of changes in institutional trust for individuals and organizations.

Zaheer and Zaheer (2006) and Welter (2012) among others point out the need for more research on institutional determinants of trust. Indeed, there is an implicit assumption in all of this prior work on institutions and entrepreneurship (including both the work in institutional economics and neo-institutional theory), which is whatever the focal institution being analyzed, that individuals inherently have trust in this institution and in the institutional environment in general. Although this assumption may hold (most of the time) in stable Western democracies, it need not always hold. Prior institutional theory has rarely (that we are aware of) examined the impact of institutional trust on organizations. One fact the global pandemic and associated political environment has laid bare, it is that trust in institutions in many countries, perhaps especially in the United States, is at all-time lows and may be nearing uncharted territory. Although the effects on our politics and political opinion surveys is well documented by political scientists, the effects of corrosively chipping at the society's trust in institutions

on organizational behavior (entrepreneurship in this case) has not been systematically theorized (that we are aware of) to date. This leaves an important gap in our understanding because if we neglect these potential effects and the embedded assumption in prior work of high levels of trust in institutions is violated, then our theories of organizational influences of the institutional environment are dangerously incomplete. Or worse, we may fail to find expected effects of institutional changes, not because those effects are absent, but rather due to the lack of trust in institutions.

We know from prior, foundational work that the levels of trust in institutions are not uniform and are subject to changes over time and across settings, yet trust is vital for economic exchange and the functioning of organizations (Zucker 1986, 1987). Because trust is particularly important when risk and interdependence are considered (Rousseau et al. 1998, Stewart 2004), we contribute to this literature by theorizing why changes in institutional trust have implications for entrepreneurial behaviors (and for individuals with different types of human capital). Further, we argue and show that these effects are not merely effects of regulatory institutions themselves (contract enforcement, judicial institutions, etc.). In demonstrating these impacts of institutional trust, we also respond to a recent call in the literature for more work on how informal institutions influence entrepreneurial behavior and the interactions with formal, regulatory institutions (Eesley et al. 2018).

Entrepreneurship literature, on the other hand, has recently begun to focus more on how entrepreneurs with awareness of their changing environments can strategically make use of aspects of the institutional environment such as intermediaries to gain access to resources (Marquis and Raynard 2015, Dutt et al. 2016, Armanios et al. 2017). Particularly when institutions are under-developed or changing, such strategies appear vital (Spicer et al. 2000, Washington and Ventresca 2004, McDermott et al. 2009, Mair et al. 2012, Eesley et al. 2021). This work has built on a longer tradition of influential theory and empirical work on how the social environment, including certification and social influence affects entrepreneurship (Kacperczyk 2013, Lerner and Malmendier 2013, Lee et al. 2017, Lanahan and Armanios 2018). However, others have focus on the impact of human capital development, yet abstracting away from the broader institutional environment (Lazear 2004). Nonetheless, increasingly, entrepreneurship research has been showing that many of the effects of education and human capital are not uniform across the population but depend on the institutional and cultural background of the individual and the interaction with the current environment in complex ways (Lee and Eesley 2018, Eesley and Lee 2021). Thus, although these

literatures have historically developed separately, there is a need to bring them more closely together and consider more fully the relationship between institutional environments and individual characteristics in shaping behaviors. Particularly when many, if not most of the formal regulatory initiatives to spur entrepreneurship are seen to have largely been unsuccessful (Lerner 2009), there is a strong need to explore alternatives, especially those rooted in insights about informal, nonregulatory institutional effects.

Institutions are commonly perceived as slow changing. However, this is not necessarily so as recent world events attest to. Political scandals or corruption can easily undermine the trust people have in their government. Bold corrective actions to fight corruption can increase people's trust in institutions as well. If such major political events that alter people's trust in institutions of government can affect the mix of productive entrepreneurship, such events could have subsequent implication for economic growth as well. As institutions have been referred to as guiding the winds of creative destruction, trust in institutions may be even more fundamental to ensuring that entrepreneurship is attractive to those most likely to use it to generate economic growth.

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Endnotes

¹ We follow Baumol (1993) and refer to productive entrepreneurship as activities that contribute to the net output of the economy or to the capacity to produce additional output. Innovation, production of goods and services, and activities that facilitate production are examples of productive entrepreneurship. However, entrepreneurship can make no productive contribution to the real output of the economy and even play destructive roles. Rent seeking for profit without contributing to production can be considered "nonproductive" entrepreneurship.

² We specifically focus in this paper on trust in the institutions of government, as distinct from trust in nongovernmental institutions (i.e., the media) or trust in specific branches or organizations of government (i.e., the police or specific politicians).

³ The impeachment differed from other optimism-inducing events in sports, such as South Korea going to the semi-finals of the World Cup or winning gold medals in the Olympics. These sporting events induce nationalistic sentiment. However, such nationalistic sentiment does not necessarily increase people's trust in government. In fact, sporting events to boast nationalism has been used by politicians for anti-ethical nation building or give cultural power to

separatist movements (Bairner 2001). In South Korea, politicians have used sports and the ensuing nationalistic sentiment to achieve certain political aims, such as anti-Japanese and anti-communist sentiments (Tosa 2015).

⁴ Although the Constitutional Court made the relevant decision, this was a scandal that involved multiple branches of government and the career decisions of the average citizen in the country likely reflect more of a generalized trust in institutions governing the economy and in the various branches of government they may encounter in the course of their entrepreneurial endeavors. The courts (broadly speaking) are relevant, as shown in previous literature due to the impact contract enforcement has on entrepreneurs (Lerner and Schoar 2005).

⁵ STEM students at top 5 universities comprise about 1.9% of the sample, whereas the number increases to 3.2% when we use the top 7 universities. Moreover, when we examine other majors the small sample size becomes more problematic. There is only 1 Law major from the top 5 university in the sample, which means we could not run all the regressions in Table 5 when we use the top 5 universities (Appendix Table 5).

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