STRENGTHENING KNOWLEDGE CREATION AND RESEARCH IN ENTREPRENEURSHIP: INCLUSION MATTERS

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Strengthening Knowledge Creation and Research in Entrepreneurship: Inclusion Matters

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Introduction

Inclusion in research systems (specifically, research training, universities, and the publishing and funding environment within higher education) is increasingly identified as a problem. A large — and growing — body of research identifies direct and indirect constraints on this research pipeline. We know that inclusion impacts, for example, the composition of graduate student cohorts, university student bodies, faculty at institutions of higher education, and funding and publication access. These constraints have been shown to exist throughout the lifecycle of a research career.

An inclusive body of researchers is better equipped to produce relevant, actionable scholarship that accounts for diversity and difference. Why? There's a strong link between the background, interests, and life experiences of a researcher and the questions and research topics they pursue.

How does inclusion affect knowledge production?

How is diversity and inclusion relevant to knowledge creation and research? Studies point out a number of impacts and benefits:

Various studies indicate that researchers' positionality — the various identities they hold — has a substantial impact on not only research topics, but also the theories and methods that scholars develop and use.

- **Identity influences the research topics that are seen as important**

  There's a strong link between social scientists' identities and lived experiences and the populations they choose to study (cf. Medin and Lee 2012; Moy and Bartman 1995). Increased diversity in academic fields often leads to novel research with previously understudied groups. For example, Latinx scholars within the field of political science broadened

### What does ‘diversity’ mean?

**Diversity, here, refers to systems, situations, or contexts where a wide range of different identities and ideologies are represented.** Diversity can represent many axes of identity or experience: race, ethnicity, gender, sexual orientation, religion, political belief, age, socioeconomic status, and physical or cognitive difference. The designation of underrepresented minority (URM) is also used in this report. Its working definition varies by institution, but it is typically used to refer to racial and ethnic minorities who are underrepresented in academia — often those who identify as African American,1 Latinx, Indigenous, and Native Hawaiian.

Inclusion is sometimes thought of as an initiative to increase representation of single-axis categories — like race, ethnicity, class, gender, etc. — this is referred to as "checkbox diversity." True inclusion efforts, however, are predicated on the understanding that individuals hold multiple, intersecting identities that cannot be neatly categorized. Inclusive research climates will move beyond the narrow lens of "checkbox diversity" and embrace the diverse worldviews and perspectives of researchers who hold a variety of identities.

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our understanding of American politics (Fraga et al. 2006). Or consider the uptick in underrepresented minority scholarship in the psychological sciences in the 1980s. This increased diversity led to the development of theories to account for the impacts of persistent discrimination on minority populations (cf. Bowman and Howard 1985) — a shift that helped improve knowledge about psychological processes across diverse segments of society.

• **Diversity can affect choice of methods**

Diversity in thought valuably pushes forward debate and discussion around methodology in research. A diverse pool of researchers can lead to the generation of diverse, novel methodologies. Novel research methodologies, such as engaged participant observation or photovoice, are often required to generate valid data from marginalized research populations, who face "survey-fatigue." Scholars who share identities with research participants have demonstrated the ability to use their shared experiences to gather richer data, particularly on sensitive subjects (Dwyer and Buckle 2009; Kerstetter 2012).

Diverse researchers benefit the field through their individual work. They also contribute to the departments they join, and more broadly, their disciplines' intellectual community.

• **Diverse teams can be more effective**

Research in management and organizational psychology demonstrates, for example, that diverse companies are more innovative (Mayer et al. 2017). Researchers speculate that this innovation arises because diverse teams have a broader range of experiences and background to draw from; they understand a broader potential range of product users than less diverse teams; and they

**Identity, observation, and innovation**

Many scholars pursue research questions that arise out of personal observation or lived experience (Medin et al. 2017). Research training is centered around the development of theory that can explain the world and constructs that can be tested. At their heart, theories emerge from observation. Inclusion means that more people — who are exposed to and observe more phenomena — are in a position to identify interesting patterns, curiosities, and topics that ultimately call for theorizing.

Some examples from entrepreneurship researchers demonstrate the role personal experience can play in shaping research interests. Bebonchu Atems (Clarkson University) decided at an early age to study economics — and to focus on income inequality — because of the stark disparities he witnessed growing up in Cameroon, while also seeing images of wealth in the United States in the media. Tessa Conroy (University of Wisconsin – Madison) grew up in a small rural town. As a child, she witnessed how the loss of a major employer impacted her community. Her firsthand experience led her to study strategies that can help communities experiencing similar economic challenges.2 Dean Shepherd (University of Notre Dame) realized — when his father closed his business — that extant research in his field didn't account for his father's experience. The academic literature dismissed emotionality and how failure relates to entrepreneurial action, motivating Shepherd to investigate entrepreneurial failure and grief (Shepherd et al. 2016).

A constellation of diverse, unique interests, lived experiences, creativity, and motivation to ask a specific question — as demonstrated by Atems, Conroy, and Shepherd — is important to open new doors and continue to advance the bounds of existing research. In the same way, there are still many research questions that have simply not received treatment by entrepreneurship research thus far.

For example, we face major economic challenges related to COVID-19 and the pandemic. While much has been studied about the economic effects of entrepreneurship on productivity, output growth, innovation, and jobs — all of which are crucial topics — there is far less research available to provide guidance on the relationship between entrepreneurship and economic inequality. Researchers from, or with proximity to, low-income households or communities may bring unique perspectives from their own lives to the study of entrepreneurship.

When the pool of researchers is homogeneous, the questions, answers, and interventions they produce are often homogenous, as well. Inclusive, diverse fields are better positioned to ask and answer pressing questions facing our heterogeneous society.
problem-solve better because they think about problems in unique ways. A number of studies have found that diverse teams are also more resilient. Teams that are cognitively diverse — meaning, teams that are not just phenotypically different, but that are made up of teammates who bring diverse perspectives and ways of knowing to their work — perform more effectively and react to challenges more quickly than homogeneous teams (Reynolds and Lewis 2017). These effects may occur on a discipline-wide scale as well. As diverse perspectives spur novel research questions and analyses within different academic fields, the ability of that discipline to create knowledge applicable across diverse segments of society can increase.

Aside from the impact of identity on the research questions that a scholar finds interesting, identity influences, to some extent, the scope and capacity of research activities with target populations.

- **Inclusion can expand or enhance connections to populations being studied**
  
  Marginalized populations may be reticent to work with researchers with whom they do not share identities. Studies show that communities respond in measurably different ways to researchers they identify as ‘outsiders’ compared to researchers who share some commonalities or are seen as ‘insiders’ within the group (Kerstetter 2012). Scholars with smaller degrees of social distance from the study population have access to more sensitive and valid data when working with marginalized communities (Muhammad et al. 2014). Researchers who share marginalized identities with a study population may have an easier time building rapport and trust with participants and are thus, often better positioned to capture accurate data than researchers who are perceived as ‘outsiders’ to the group (Nzinga et al. 2018).

- **Inclusion can impact cultural relevancy**
  
  Inclusion within research also, naturally, supports research activities that offer practical impact, and are translatable. When the research process includes diverse actors — as both investigators and research participants — the questions and interventions that arise are more often culturally appropriate, easily adoptable, and grounded in real, pressing issues (Medin and Bang 2014). Within entrepreneurship, for example, studies have shown that women are significantly more likely to purchase products from firms run by women or staffed by women inventors (Einio et al. 2019). This might indicate that when interventions or products emerge from within — or within closer proximity to — communities themselves, they are more likely to resonate with community members. Studies suggest the same might be true for the research process. For example, science education interventions have been shown to be more effective when informed by multiple, diverse researcher ideologies (Medin and Bang 2014).

### Inclusion or representation?

Inclusion of diverse researchers opens the door to diverse perspectives and ways of working. To put it another way, inclusion does not just mean incorporating phenotypically different researchers into existing mechanisms of knowledge production. Researchers with unique life experiences will bring with them unique ways of thinking, identifying problems and questions, developing models of research, and contributing to the field. True inclusion efforts move beyond representing diversity, and instead will create space for diverse ways of observing, thinking, theorizing, hypothesizing, testing, interpreting, and validating in research systems.

### Societal and economic consequences of non-inclusion in research systems

The societal and economic consequences of non-inclusion is high. It can delay new insight, discovery, and the development of knowledge and theories that are representative of a rapidly diversifying and changing world.

The extent and consequences of non-inclusion have been studied extensively in the fields of medicine and public health — studies have found that the populations researchers most often study are the least generalizable. A majority of behavioral science research is conducted on WEIRD — western, educated, industrialized, rich, and democratic participants and societies — (often, because of convenience, U.S. undergraduates). Globally, however, this population is a behavioral and psychological outlier. Data collected on
WEIRD participants is not broadly representative or generalizable, though it is often used this way (Henrich et al. 2010). This sampling bias has implications for how well we understand the behavior of diverse U.S. populations as well. For example, researchers that study decision-making discovered that dominant paradigms about how individuals save and spend do not extend to economically marginalized groups. While bias in attending to relative rather than absolute saving is well established, more recent research finds that poor people (or those placed under artificial scarcity) save more rationally (Shah et al. 2015). By generalizing from samples that represent population outliers, we reduce the applicability, relevance, and rigor of science.

In the technological sciences, inclusion has implications for citizen and consumer safety. Recent incidents have highlighted how unconscious and systemic bias among researchers and programmers leads to the development of racially biased algorithms. Facial recognition software, for example, often tags the faces of Black, Asian, and Latinx users as anomalies. Algorithms and the use of big data are growing in every domain, including those relevant to entrepreneurship (such as banking), and can be important for entrepreneurship scholars to deal with.

While the life or death implications of diversity in social science disciplines that study entrepreneurship may be less immediately obvious, they matter because entrepreneurship research directly contributes to management and policy activities.

**When non-inclusion in research and teaching is a life or death issue.**

In medicine, non-inclusion can shape differential life outcomes. Upwards of 90% of research in pharmacogenomics is conducted on white populations. As a result, the frontline therapeutic treatments for a number of conditions are less effective, and in some cases harmful, for various racial minority groups (Konkel 2015). Research that doesn’t include — or account for — human difference can be ineffective at best, and harmful at worst. Relatedly, non-inclusion in medical textbook illustration can lead to serious health outcomes for patients. Approximately 85% of medical textbook illustrators identify as white. Because medical textbooks reflect the experiences and worldviews of their authors, these books present an overly narrow view of the human body to students. A study of 6,000 images in 17 anatomy textbooks found a significant bias toward male bodies, and a depiction of women’s bodies as white, slender, and young (Parker et al. 2017). Scholars have found that this bodily disparity increases medical students’ implicit bias and, by illustrating disease states on only one model of body, makes doctors less able to identify and diagnose disease in diverse bodies (cf. Dijkstra et al. 2008).

**Algorithms and the use of big data are growing in every domain, including those relevant to entrepreneurship (such as banking), and can be important for entrepreneurship scholars to deal with.**
What factors can shape inclusion in the research pipeline?

**BARRIERS TO ENTRY**

Multiple barriers limit women, first generation scholars, and URM from entering academia and joining research institutions. For URM students, the academic pipeline — the path a student travels from childhood to postsecondary education — is full of “leaks” or junctures at which barriers and discrimination force them to discontinue their education. For example, URM students are less likely to have access to advanced math, science, and computing courses in high school, which limits their later participation in many STEM career paths (Theokas and Saaris 2013). Students of color are also more likely than White students to be unable to finish college due to financial barriers that result from the generational wealth gap (Mishory et al. 2019). Students of color and women lack access to diverse role models who share similar life experiences, leading to disparities in peer networks and mentorship (cf. Dee 2005; Gershenson et al. 2015). And a poor campus climate — as a result of bias and discrimination — strongly affects URM student engagement and retention (cf. Hurtado and Guillermo-Wann 2013; McClain and Perry 2017). Additionally, a lack of perceived cultural relevance or alignment can also discourage URM students from pursuing continued education in any given academic discipline (Bayer et al. 2020a; Bayer et al. 2020b).

**BIAS WITHIN THE ACADEMY**

Despite efforts to address pipeline leaks, many institutions of higher education continue to lack diversity. The demographics of the economics discipline, for example, highlights how pipeline constraints can affect a field. In 2015, there were only 47 Black economists employed as faculty at more than 127 degree granting institutions in the U.S. (Price and Sharpe 2017). The limited number of URM scholars who find employment at institutions of higher education face barriers within the academy, as well. Structural systems within institutions of higher education often place heavier labor burdens on women and URM scholars, while simultaneously undervaluing the products of this labor. For instance, female faculty — especially women of color — perform a disproportionate share of departmental service, mentorship, and “institutional housekeeping” (Pyke 2011). This work is often unrecognized and/or does not contribute to faculty career advancement.

**Where is entrepreneurship research produced?**

Entrepreneurship research is diverse and multi-disciplinary. This can make it difficult to fully grasp the factors that shape inclusion for researchers who pursue this topic. Studies of entrepreneurship are conducted across many fields, such as anthropology, economics, finance, management, public policy, social work, and sociology, to name a few. Climate studies — which, even within disciplines are difficult to analyze, as scholars experience divergent climates in their institutions, departments, and across geographic area — are even more complicated within the field of entrepreneurship research, as disciplinary diversity adds another variable. More research is needed to fully understand the factors that shape inclusion within the field.
In addition, women and URM scholars are significantly more likely to find employment at teaching institutions rather than at research-oriented institutions (Hancock et al. 2013). Often, these scholars carry heavy administrative and teaching loads, leaving less time and resources for research productivity – which, in many fields, is where the bulk of intellectual contribution to the field occurs. Heavy teaching load is consistently linked to a reduction in publishing output (Graves et al. 1982). These structural inequities affect scholars early in their careers as well. URM graduate students in many fields face isolation and financial constraints, which lead to higher dropout rates. In economics, Black, Latinx, and Indigenous graduate students cite substantially lower senses of belonging within the field; departmental environments described as “hostile” lead to low levels of satisfaction and the decision to exit the economics career trajectory (Bayer et al. 2020b).

BIAS IN FUNDING AND PUBLISHING

Research productivity has a strong impact on faculty advancement and reputation. It directly correlates with an individual’s ability to impact knowledge production within their field. Data shows, however, that across many fields, URM and women are funded and published at lower rates. Studies show, for example:

- Researchers of color are significantly less likely to receive federal funding for their research – a funding gap that persists even when education, publication records and citations, and previous grants are controlled for (Ginther et al. 2011).

- Women in economics face harsher scrutiny during peer review and receive less credit for co-authored papers during tenure review (Hengel 2017; Sarsons 2017).

- URM authors are less likely to have their work printed in top-tier journals in many fields, and women and other URM scholars are systematically cited less by their peers (Maliniak et al. 2013; Teele and Thelen 2017). In economics, for example, a persistent gender gap in top-tier journal publication and citation metrics has been theorized as a result of gendered social networks, and/or access to prestigious peer-networks to facilitate co-authorship (McDowell et al. 2006). Both theories are rooted in women’s higher likelihood to start their careers at lower-ranked economics departments, which has been identified as a symptom of institutional gender bias (Ghosh and Liu 2018).

- Another explanation for this disparity in publication rates between men and women is the gendered division of household labor (and institutional service) that leaves women with less time to publish and contribute to their fields (Suitor et al. 2001).

- Importantly, though, studies indicate that these gendered discrepancies cannot be solely explained by division of labor and childcare burdens. Analysis of the gender gap in tenure in economics shows that a significant portion of the discrepancy in promotion cannot be explained by observable characteristics (Ginther and Kahn 2004).

Inclusion in the researcher pipeline

Researchers across disciplines have developed innovative measures to address inclusion in knowledge production. Within economics, for example, interventions such as simple emails providing students with information about economics courses (Bayer et al. 2019), increasing same-gender and same-race mentorship opportunities (Bayer 2016), and pedagogical shifts that connect course material to students’ lives (Bayer et al. 2020a) all have promising impacts on gender and racial imbalances within the pool of undergraduate students who study the discipline.

However, gendered, racialized, and other disparities still exist across research systems. Larger-scale, holistic efforts to address the problem — and assess the impact of interventions — are harder for researchers to enact. How do we work toward an inclusive, innovative, and diverse field of researchers within entrepreneurship scholarship? Effective efforts will involve buy-in from multiple stakeholders within higher education, publishing, and funding domains; long-term, sustained initiatives; holistic understandings of diversity that move beyond ‘check-box’ representation; and supportiveness of — and openness to — the innovation diversity and inclusion can bring.
References


Endnotes

1. The ethnic and racial markers Black and African American are both used in this report, following either first usage of those cited, or referred author’s self-identification.