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From Movements to Managers: Discourse, Jurisdictions, and Positions in the Field of
Sustainability

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Abstract

In three empirical chapters, this dissertation examines the field of sustainability over time, specifically uncovering the processes by which contentious interactions between movements and organizations can shift to the development of shared meaning and the creation of new organizational positions. The dissertation utilizes the analyses strategies of text analysis, field observations, interviews, and statistical modeling to investigate changes in discourse in the field of sustainability over time and the development and growth of sustainability manager positions that are tasked with managing movement-initiated work, in particular examining who comes to occupy these positions and how the individuals in them pursue or abandon efforts at movement-aligned changes inside their organizations. The empirical setting is primarily focused on sustainability in higher education, with one chapter utilizing a comparison case with sustainability in healthcare. Chapter 1 examines changes in discourse in an online forum about sustainability in higher education, and finds that the actors' discourse starts out as disparate from one another, but eventually reaches discursive coherence regarding which issues are core to the field; however, this settlement excludes key actors, such as activists. Additionally, when the same set of issues is discussed to a similar degree across actors, there is actually greater disagreement over how those core issues should operate in the field; this indicates that actors in this field first worked towards a shared understanding of which issues are "worthy of debate" before proceeding to debate the content of those issues. Chapter 2 traces the development of the nascent occupational group of sustainability managers in higher education, who were established with a mandate from a social movement but without a clear set of tasks to carry out in their new roles. Through analyses of observations, interviews, and archival documents on the multi-stage creation of this occupational group's jurisdiction, it becomes clear that the jurisdiction was

crafted in large part through intra-occupational negotiation over task areas and that the occupational group worked to distance its jurisdiction in part from what the movement had envisioned, but continued to work behind-the-scenes, engaging in movement-aligned "insurgency work" within areas that they had cut from their formal jurisdiction. Chapter 3 follows the individuals who were involved early on in the fields of sustainability in higher education and healthcare (termed "field founders") to examine who becomes a sustainability manager as these new positions are established and gain legitimacy over time. The results show that as the position gains legitimacy, field founders are more likely to become sustainability managers. In higher education, field founders from a movement-aligned background, who arguably represent the ideals of the field, are more likely to enter sustainability manager positions than those without a movement-aligned background, but this effect is negatively moderated by the degree of legitimacy of the position. In the healthcare sector, field founders with a movement-aligned background are no more likely to become sustainability managers than other field founders. A follow-up qualitative study of the founding of sustainability manager positions in the two sectors sheds light on potential reasons for these mixed results. Overall, the findings across the three chapters contribute to theories of movements and organizations, work and occupations, and fields.

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Dedication

To Ceri, whose answer to every roadblock that came along during this journey was always,

indefatigably, "No problem, we'll make this work."

Thank you for your patience, humor, love, optimism, and wisdom. Thank you for believing we

could do this.

Pe dymunwn olud bydol,
Hedyn buan ganddo sydd;
Golud calon lân, rinweddol,
Yn dwyn bythol elw fydd.

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Introduction

Social movements are a central source of pressure on organizations to change policies, practices, and structures (King & Pearce, 2010; Weber & King, 2013). Existing theoretical models conceptualize social movements as changing organizations primarily in two ways: 1) extra-institutional actors agitate for change through disruptive tactics; or 2) existing organizational members mobilize internally (Briscoe & Gupta, 2016). The first route is the prototypical social movement model. In these accounts, social movements either target the state, pushing for regulation of organizations, or they target organizations directly (primarily through contentious tactics such as protests and boycotts) to influence them to change their practices (King, 2008; King & Soule, 2007; McDonnell, King, & Soule, 2015; Van Dyke, Soule, & Taylor, 2004). Social movement actors in these models are often defined as "extra-institutional," indicating that they inhabit roles outside of the organizations they work to change (Snow, Soule, & Kriesi, 2008). Recently, scholars have recognized that movement mobilization can also occur *inside* organizations, which has been shown most notably through cases of employee activism regarding lesbian, gay, bisexual, and transgender (LGBT) rights in the workplace (Briscoe & Safford, 2008; Raeburn, 2004; Scully & Segal, 2002). In these studies, employees organize, often initially through support groups, and then agitate for changes to policies such as pension benefits for same-sex couples (Raeburn, 2004). These are "grassroots" groups comprised of employees with other formal positions in their organizations – they are not tasked with jurisdiction over these issues. These two models of change have provided the primary conceptualizations for our understanding of the dynamics between movements and organizations, even as some additional accounts of how movements influence organizations have been highlighted in extant studies – such as how movements gain credibility to be seen as experts

in organizational decisions (Epstein, 1995) and how movement-oriented individuals can enter

new positions in organizations tasked with managing movement-initiated changes (Lounsbury,

2001).

While viewing the possible pathways of change either via disruptive extra-institutional

actors or internal employee groups has greatly advanced our understanding of the influence of

movements on organizations, these two dominant perspectives do not account for other processes

by which these interactions unfold, leaving critical questions of the dynamics between

movements and organizations poorly understood. For example, how do movements work to build

entirely new fields around their core issues, not only targeting a single organization or a single

practice, but working across organizations in a field that can shift from purely disruptive tactics

to an arena of debate that eventually reaches some shared understanding with organizations

regarding policies, practices, standards, and positions? Additionally, how do positions in these

movement-initiated fields develop and shift over time? In particular, what happens when new

positions are created inside organizations to manage movement-mandated areas? These insider

change agent positions do not conform to either the view of extra-institutional movement actors

or grassroots employee volunteers, so we do not have a good theoretical understanding of how

they operate. Furthermore, we know little about who comes to occupy these roles and how they

might coordinate to form new occupations at the intersections of movements and organizations.

In this dissertation, I address these outstanding questions by adopting a longitudinal, multi-actor,

multi-organizational view that examines the processes by which contentious field-level

interactions between movements and organizations can shift to the development of shared

meaning, as well as the processes by which movement activity can translate to formal positions

in organizations, and finally in turn how those positions work towards or fall short of the potential for achieving movement-oriented change.

Addressing these questions is necessary because without an understanding of the field-level dynamics between social movements and organizations and the work of internal movement-initiated change agents, it is challenging to fully understand how social movements impact organizations, and therefore it is ultimately extremely difficult to understand the processes by which *symbolic* versus *substantive* changes are produced and institutionalized (DiMaggio & Powell, 1983; Edelman, 1992; Edelman, Petterson, Chambliss, & Erlanger, 1991). We know from scholarship on diversity management, for example, that diversity programs and positions, which came about in large part due to movement pressure, often fall short of what movements had envisioned for achieving equality (Berrey, 2015; Edelman, 2016; Edelman, Fuller, & Mara-Drita, 2001; Kalev, Dobbin, & Kelly, 2006). However, it is unclear when and why this is the case, or how movement-initiated fields, like diversity, translate to changes in discourse, practices, and positions in organizations. In this dissertation, I adopt a lens and setting that enable me to examine ongoing movement-organization dynamics surrounding the creation of a new field and new formal positions in detail. This dissertation focuses on the empirical case of the development of the field of "sustainability," and "sustainability manager" positions in organizations. Through multiple sources of qualitative and quantitative data, I examine changes in discourse, positions, and the task areas that sustainability managers came to oversee as organizations wrestled with the implementation of a set of changes that were promoted by movements. In particular, I focus on these dynamics within the sector of higher education, as movements were pivotal in establishing a new field around the issue of sustainability within this sector. Additionally, however, in my third chapter I also examine positions in sustainability

management in higher education alongside those in hospitals, to compare and contrast the development of these seemingly-similar roles across these two sectors.

Today, sustainability primarily refers to practices that are intended to reduce negative environmental impacts (such as eliminating waste, greenhouse gas emissions, or chemicals) or those that promote positive environmental outcomes (such as increasing biodiversity or access to healthy food). Sustainability has been routinized to include practices such as green building standards (Hoffman & Henn, 2008), recycling (Lounsbury, Ventresca, & Hirsch, 2003), and the consideration of environmental impacts in manufacturing (Howard-Grenville, 2007). However, as I will show, this was not always the full or intended definition of sustainability. Therefore, in this dissertation, I do not adopt a strict definition of sustainability. Instead, I seek to understand the definitions that are debated and employed by the actors whom I study and the practices that arise in the name of sustainability. Scoones (2007: 589) has referred to sustainability as a "boundary term," drawing on the theoretical insights of boundary objects (Star & Griesemer, 1989: 393), which are "objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites." I look at what sustainability has meant to different groups over time, and how it has come to signify a coherent set of commitments, positions, metrics, standards, and activities.

I examine the dynamics of sustainability primarily through theories of movements and organizations, but I also complement this perspective by using the lens of field theory and perspectives on work and occupations. In my studies, I first recognize that contestation around sustainability in higher education has brought together disparate groups who have interacted with one another to create a nascent issue-based field (Hoffman, 1999) where new practices, roles,

and standards were debated and implemented over time. An essential indicator of how this field developed was through changes in discourse (Wuthnow, 1989); both the content and the relative usage of different vocabularies by different actors indicates the issues at stake and the degree of shared understanding across actors regarding these issues. Therefore, in the first chapter I examine sustainability in higher education by looking at changes in discourse across actors over time, and utilize the lens of field theory to inform this study. Fields are dynamic arenas where actors occupy particular positions in a social order and interact with one another based on their shared interest in an area of social life and in shaping the rules governing that area (Bourdieu, 1971, 1984; DiMaggio & Powell, 1983; Fligstein & McAdam, 2012; Powell & DiMaggio, 1991). While there has been considerable work on the mechanisms of related processes, such as market emergence (Fligstein, 1996; Santos & Eisenhardt, 2009), product development (Kennedy, 2005; Porac, Rosa, Spanjol, & Saxon, 2001) and industry creation (Kennedy, 2008), the process of field construction remain less understood, especially within those fields that are formed at the intersection of movements and organizations. By examining changes in discourse in the field of sustainability over time through the full content of 9,540 messages from an online forum, this dissertation contributes to field theory by showing that the construction of what has to date been termed "shared understanding" – a key theoretical indicator in studies of fields – actually comprises two separate underlying constructs – 1) discursive coherence and 2) discursive agreement. Discursive coherence is a shared understanding of which issues matter to a field. Discursive agreement concerns how much agreement there is among field actors regarding those issues. In the field of sustainability, I find that discursive coherence increases over time, but those issues that become coherent in the discourse subsequently exhibit less agreement. This finding illuminates a process by which issues in nascent field become "worthy of debate," by

showing how there can be increased coherence around a shared set of central issues, enabling a field to settle, while contestation regarding how those issues should operate endures.

The second theoretical area that I engage with substantially in this dissertation is that of work and occupations (Abbott, 1988; Fayard, Stigliani, & Bechky, 2016; Hughes, 1958; Nelsen & Barley, 1997; Van Maanen & Barley, 1984). I utilize this lens to inform my theorizing especially in my second chapter, with an aim to in turn contribute back to this literature with my findings on the establishment of sustainability managers. I chose to examine sustainability managers in large part because I found through my work in Chapter 1 that this new occupational group was central to the ongoing discursive dynamics in this field. Additionally, sustainability managers are uniquely positioned as they work inside organizations but have a mandate (Hughes, 1958) that has come about in large part from a movement. To date in the work and occupations literature we have thought of new occupational groups as having a mandate that primarily comes from an employer, who confers the right to oversee a certain jurisdiction, which represents the set of tasks that is in their domain (Hughes, 1958). We have also assumed, based in large part on Abbott's (1988) influential work on professions, that mandates are translated to jurisdictions primarily through *inter-occupational* jockeying over tasks within organizations. However, through field observations, interviews, and archival data, my findings challenge this existing understanding by showing how mandates can come from multiple audiences and contain inherent tensions that do not easily translate into jurisdictions, and furthermore they illuminate the importance of *intra-occupational* negotiations over jurisdictions. In addition to these findings, Chapter 2 additionally contributes to theories of work and occupations by showing why and when an occupational group may also chose to *exclude* certain task areas from their jurisdiction,

even if they are part of their mandate, and furthermore how they negotiate these conflicting task areas over time.

Finally, throughout this dissertation I draw substantially on theories of how social movements influence organizational change, and I utilize this lens especially in the third chapter. Through this study, I contribute to and expand our understanding of the influence of movements in the creation and implementation of new positions within organizations that are tasked with managing movement-initiated issues. While we can point to numerous examples of these types of roles in organizations, such as affirmative action officers (Edelman et al., 1991), diversity officers (Dobbin, Kalev, & Kelly, 2007; Kelly & Dobbin, 1998), recycling managers (Lounsbury, 1998, 2001), corporate social responsibility managers (Risi & Wickert, 2017), and philanthropy officers (Pamphile, 2019), it is unclear how movements influence these positions over time, and in particular who comes to occupy these unusual roles at the intersection of movements and organizations. In this final chapter, therefore, I ask the question of who, from the individuals who were engaged in early field-forming conversations, becomes a sustainability manager. I investigate this question through data on the biographies and career pathways of 1,310 individuals who were involved in early field-organizing conversations on sustainability in higher education and healthcare. While previous work on the interactions between movements and organizations has focused extensively on the role of movements in creating new industries and markets (Dutta, Rao, & Vasi, 2016; Rao, Morrill, & Zald, 2000; Vasi, 2010; Weber, Heinze, & DeSoucey, 2008), the findings from this study contribute an understanding of the creation, and importantly also the implementation, of new positions to manage areas of work that have largely been initiated by movements.

Methodologically, in this dissertation I employ both qualitative interpretive approaches alongside quantitative text analysis and statistical modeling. I work to utilize the most appropriate methodological approach for answering different questions within each chapter, and I frequently bring together multiple types of data within the same study. My data are comprised of archival records, qualitative interviews, and a unique multivariate panel database that I constructed. The archival data are unusually rich, and include the full text of 9,540 messages from an online forum dedicated to sustainability in higher education as well as backstage documents showing the evolution of a standardized assessment tool for sustainability managers in higher education. My qualitative interviews comprise 29 semi-structured interviews with sustainability managers in higher education and 23 with those in the healthcare field. I use these interviews to understand the impetus for creating sustainability manager positions, the identities that sustainability managers embrace or reject, and how individuals in these positions attempt to manage change in their organizations. Finally, the panel database that I constructed is comprised of 1,310 career histories of individuals who were involved in early field-organizing conversations, which I gathered from the resume repository website *LinkedIn*. I use these data to investigate whether or not individuals from certain biographical backgrounds (e.g. work experience, education, and demographics) have an increased likelihood of entering a sustainability manager position.

This dissertation illuminates the processes by which movements can create entirely new fields of activity that spur changes in organizations based on new norms and expectations, new types of interactions between actors, new discourses, and new sets of practices and standards for evaluation. Importantly, it also focuses in particular on how movement pressure to address new fields can result in the creation of new organizational positions. The findings here contribute to

theories of movements and organizations, work and occupations, and fields, furthering our

understanding of the dynamics between movements and organizations.

Chapter Summaries

Chapter 1: "Worthy of Debate: Discursive coherence and agreement in the formation of the field of sustainability in higher education."

Chapter 1 explores the development of "shared understanding" in the field of environmental sustainability in higher education – a field that began with social movement pressure surrounding contentious issues and evolved over decades into a settled field. The study defines and traces two distinct elements of shared understanding in this field: discursive coherence and discursive agreement. Discursive coherence is a shared understanding of *which issues matter* to a field. Discursive agreement concerns *how much agreement* there is among field actors regarding those issues. To trace these indicators, we utilize topic modeling alongside qualitative coding of a sample of messages from an online forum of conversations focused on the nascent field. We find that discursive coherence increases over time, but that coherent issues are also more likely to exhibit disagreement, indicating that more coherent issues are seen as more consequential, and therefore more "worthy of debate" in the nascent field.

Chapter 2: "We're not like those crazy hippies: Jurisdictional censoring and concealing in the construction of sustainability management"

Chapter 2 identifies and analyzes the process of how a nascent occupational group translates their occupational mandate into a jurisdiction, and subsequently how they navigate the jurisdictional boundaries that they have created over time. Despite considerable interest in occupational mandates and jurisdictions, few studies have studied the relationship between them or the process by which jurisdictional boundaries are created. This study explores this relationship through the case of the formation of the occupational group of sustainability

managers in higher education, whose mandate was formed in large part out of pressure from a social movement that led to organizations creating new roles to manage sustainability work. This qualitative study utilizes observations, interviews, and archival data contribute to our understanding of occupational formation. It does so by first highlighting the importance of recognizing the tensions and conflicts that can exist in mandates and how those are navigated in the translation to jurisdictions – in this case through the activity of *jurisdictional censoring*, whereby elements of the mandate were excluded from the formal jurisdiction. The study also contributes by identifying the central role of intra-occupational negotiation in this case, a previously understudied aspect of jurisdictional boundary work. Finally, by uncovering the activity of *jurisdictional concealing*, whereby this group conceals their ongoing work in a task area that is outside of their jurisdiction but aligned with their mandate, the chapter also contributes to our understanding of when, why, and how occupational groups may choose to conceal elements of their task areas, rather than expand their formal jurisdiction.

Chapter 3: "Becoming an Insider: Pathways of movement from field founders to sustainability managers"

Chapter 3 investigates the pattern by which individuals who are active in forming a field – "field founders" - enter new professional positions to manage the concerns of that field. Utilizing data on the career pathways of 1,310 individuals who were involved in field-configuring spaces focused on sustainability, we test a set of hypotheses related to who is most likely to move from engaging in the field surrounding sustainability to becoming a sustainability manager, and how this changes over time. The question of who enters these positions matters, because ultimately it is these individuals who are largely working inside organizations towards institutionalizing the practices and policies associated with the field. We first hypothesize that in general, field founders

will be more likely to become sustainability managers as the position becomes more legitimate. We then hypothesize that field founders with a movement-aligned background will be more likely than other field founders to enter these positions, and our final hypothesis is that the likelihood of movement-aligned individuals becoming a sustainability manager will be negatively moderated by the degree of legitimacy of the position. We test these hypotheses by examining the career trajectories of field founders in the field of sustainability in higher education and healthcare. We find support for all three hypotheses in the higher education sector, but in the healthcare sector we only find support for the first hypothesis. We then conduct a follow-up qualitative study of sustainability managers in both sectors to understand the history behind the creation of their roles, and suggest theoretical propositions based on these data, which emphasize that the entry opportunities for movement-aligned individuals into positions as leaders who are tasked with managing social movement demands potentially depends on the degree to which movement pressure is a primary factor in the creation of the position. The findings contribute to our understanding of how movements influence the creation of new occupations, and importantly whether or not, and when, they have direct access to positions as internal change agents.

Chapter 1: Worthy of Debate: Discursive coherence and agreement in the formation of the field of sustainability in higher education

Fields are dynamic arenas where actors occupy particular positions in a social order and interact with one another based on their shared interest in an area of social life and in shaping the rules governing that area (Bourdieu, 1971, 1984; DiMaggio & Powell, 1983; Fligstein & McAdam, 2012; Powell & DiMaggio, 1991). In the emergence of new fields, actors engage in contestation over meaning and resources while also attempting to establish what has been termed "shared understanding" (Fligstein & McAdam, 2012), or "shared meaning," in the field. While the creation of a common discourse is central to the process of field emergence (Lawrence & Phillips, 2004; Lounsbury et al., 2003; Ruef, 1999), developing a shared understanding of what matters to a field is challenging. It is perhaps the most challenging in fields that form around contentious ideas and ambiguous norms and that are comprised of an array of actors from different backgrounds and organizational affiliations. For example, when social movements are working to change norms and practices surrounding contentious issues such as forestry standards, industry working conditions, or child labor, they must engage a variety of different actors who have a shared interest in the eventual fate of the contentious issue. The actors who engage in nascent fields may have divergent interests and conceptualizations of the goals and purpose of the field at first. The movement's goal is for the field to eventually reach a shared understanding, which theoretically should enable it to settle around a set of norms, practices, and potentially standards and evaluation measures. However, it is unclear how fields like these evolve from loosely connected individuals from different backgrounds with a shared interest in a

contentious issue (but divergent views on how that issue should operate) to settled fields of activity underpinned by shared understanding, which is essential for field formation.

Our study focuses on a field that began as a movement-led effort around a contentious issue, but eventually resulted in an entirely new settled field comprised of new practices, norms, evaluation tools, as well as field-specific roles and organizations. We examine how shared understanding evolved over the formative years of the nascent field of sustainability in higher education in North America. This case represents an excellent window to observe changes in discourse during field formation. "Sustainability" as a term, and an associated field, had little to no meaning until the early 1990s, when it began as a site of movement and organizational contention. Social movements, which were primarily comprised of student activists, targeted colleges and universities to pressure them to adopt a wide range of new practices and commitments. At the time, social movement actors, university officials, faculty, staff and other interested parties had very different views about what sustainability meant, how it should be handled, and even whether or not it should be an organizational concern. Between the early 1990s and 2010, however, interested actors carried on a continued discourse with one another that has undergirded the evolution of what can be termed the field of sustainability in higher education. They have sharpened the meaning of sustainability, created normative expectations of higher educations' "responsibilities," and spurred the voluntary adoption of a wide range of entirely new practices. By 2010, hundreds of colleges and universities had made significant commitments to sustainability and adopted numerous new practices, including changing waste disposal processes, installing renewable energy systems, adopting green building codes, creating positions for sustainability managers, and reporting on these efforts through voluntary reporting systems.

What sort of discursive change occurred to enable actors involved in the sustainability movement to move from contention over the meaning of sustainability to a relatively stable field with a "shared understanding" regarding roles and practices? In order to address this question, we analyze the complete archive of 9,540 messages from an online forum that was the site of conversations in this field between1992 through to 2010. The forum conversations give us a real-time, *in-situ* perspective on a nascent field from the point of view of multiple actors. A central part of our theoretical and analytical approach in this study is our refinement of the concept of "shared understanding," as it has remained elusive to define and measure empirically (Mohr, 2005). We consider "shared understanding," to comprise two distinct elements, which we term "discursive coherence" and "discursive agreement." These two concepts separate questions of 1) whether or not field members see the same set of issues as equally pertaining to a field (discursive coherence) and 2) whether or not they share opinions about how those issues should operate in the field (discursive agreement). We measure and trace these two concepts through topic modeling and qualitative coding of the discourse in the online forum to address the question of how shared understanding evolved over the formative years of the nascent field of sustainability in higher education in North America. Our approach builds on the linguistic turn within the study of organizations as well as the longstanding consideration of language as central to constituting shared understanding (DiMaggio, Nag, & Blei, 2013; Ghaziani & Ventresca, 2005; Ventresca & Mohr, 2002; Wuthnow, 1989).

In the following, we first introduce existing work and outstanding questions regarding shared understanding in field emergence and further define discursive coherence and discursive agreement. We then describe our data and analyses for measuring discursive change. Next, we present our results, which show that over time, the field of sustainability in higher education

reached relative discursive coherence between members – actors began to discuss the same set of issues to a similar degree as one another over time. However, the pathway towards discursive coherence was not linear and certain groups remained persistent discursive outliers. Additionally, we find that discursive agreement did not follow the same chronological pattern. In fact, agreement was lowest within issues that had cohered, indicating that there is an inverse relationship between discursive coherence and discursive agreement in the early years of this field. We explore the role of attention to explain this relationship, and indeed find that more coherent issues receive more attention from field members in the conversations. We conclude that once an issue becomes seen as pertaining to a field it also becomes "worthy of debate," which opens the door to disagreement between actors vying for control. By separating discursive coherence from discursive agreement, we find that field members can develop shared understanding of the central issues of the field, indicating relative field settlement, while continuing to disagree over how the field should operate, reflecting ongoing contestation.

SHARED UNDERSTANDING IN EMERGING FIELDS

Organizational scholars, drawing on Bourdieu's (1971, 1984) concept of fields, distinguish between "settled" and "unsettled" fields. Unsettled fields are those that are emerging or have persistent disagreement and contestation regarding principles, practices, and "rules of the game" (DiMaggio & Powell, 1983; Fligstein, 2001; Fligstein & McAdam, 2012; Hoffman, 1999; Powell & DiMaggio, 1991). Settled fields, on the other hand, are stable social orders, characterized by what scholars have termed a "shared understanding" amongst actors (Fligstein & McAdam, 2012). Thus, a central assumption of field theory is that as a field becomes a stable order, actors in that field develop a shared understanding of which issues are pertinent to that field and the relative importance of those issues. However, shared understanding, while deemed

important to field formation, has also been conceptually fuzzy and therefore difficult to measure empirically (Mohr, 2005). We seek to improve construct clarity and the theoretical language to describe how actors in a nascent field develop what has to date been called "shared understanding." In our consideration of the development of shared understanding, we think it is important to conceptually separate the degree to which different groups agree on *which issues matter* in a field versus *how much agreement* there is within those same issues (Goldberg, 2011; Martin, 2000). We term the former discursive coherence and the latter discursive agreement.

Discursive coherence refers to the degree to which field actors share a common orientation around how much an issue or set of issues is relevant to a field. Discursive coherence is important for drawing field boundaries and defining which issues are worthy of discussion, debate, and (potentially) conflict. When individuals discuss a set of issues in a field to a similar degree there is high discursive coherence, but when they discuss different issues or the same set of issues to varying degrees, there is low discursive coherence. Attaining discursive coherence is similar to the agenda setting dynamics of political arenas inasmuch as issues compete for attention and relevance, and as a field coheres, eventually certain issues become an accepted part of the landscape of what matters (Kingdon & Thurber, 1984). *Discursive agreement*, in contrast, refers to shared opinion, preferences, or positions about issues within the field that determine how the field should operate (Fligstein & McAdam, 2012; Goldberg, 2011). High discursive agreement implies that actors in a field agree, more or less, about how a particular issue should be handled.

Our premise is that it is possible for actors to have high overlap in which issues they see as relevant to a field and potentially still have different opinions about what to do about those

issues. For example, in the formation of the field of HIV/AIDS treatment, various groups that were involved in the field (i.e. pharmaceutical companies, advocacy councils, activist groups, patients) cohered around the issue of clinical trials as being essential to the field (Maguire, 2004). However, the groups continued to disagree in their views of *how* the trials should operate; for example, who could have access to them, who should pay for the treatments, and who could decide the risks patients could take with new treatments (Epstein, 1995; Maguire, 2004). The issue became coherent but the field actors were in continued disagreement.

Both discursive coherence and agreement are essential to questions of field formation, but in the past they have been conflated through general assertions that actors in nascent fields develop a "common understanding" (Maguire, 2004) or "common meaning systems," (Scott, 2000) that they "negotiate over issue interpretation" (Hoffman, 1999), or that fields are "battlegrounds where collective actors compete to give meaning to an issue" (Bail, 2012). In separating coherence from agreement, we follow the recent theoretical clarifications made by Martin (2000) and Goldberg (2011) who distinguish the consideration of the relative significance of an issue to an area of social life from the varying opinions regarding that same issue. In other words, even if actors agree on which issues matter in a field, it does not follow that they necessarily share the same opinions about what should be done about each of those issues.

Because past scholars have not separated discursive coherence from discursive agreement, we have little understanding of how the two are related, and therefore whether or not there is value in considering them as two separate constructs. To the extent that a field emerges during a moment of conflict and contestation, existing theories of how shared understanding develops in nascent fields would lead us to expect that over time contestation should decline. If

discursive coherence and agreement are somewhat interchangeable, then as contestation declines, discursive coherence and agreement (conflated as "shared understanding") would both increase.

However, by separating these constructs we can consider other potential relationships between field settlement and contestation. One possibility is that discursive coherence and agreement are linked sequentially and are produced through different field-level processes. In order for discursive agreement to be reached, actors must first develop a shared sense of which issues matter. Initial contestation over which issues matter is gradually settled as the discourse in a field becomes more coherent, but then this could lead to a second form of conflict in which actors struggle with each over how to pursue their individual and collective goals. Contestation, in this sense, changes form over time. Initially, contestation centers on which issues are relevant to a field, but as a shared set of issues coheres, contestation shifts and centers on how those issues are controlled or carried out by the various players in the field.

In our theorizing, first actors would vie for dominance over which issues matter and ought to be collectively addressed in the field. As the field stabilizes and the issue agenda becomes more defined, the field reaches higher levels of discursive coherence. As the actors begin to see the same set of issues as central to the field, they then contend over how to address those issues and collective goals in the most effective ways. At times, during this stage of discursive evolution, actors' ideological and positional differences come to the fore, which leads to contestation over means of attainment (rather than just ends). In consideration of this potential configuration, we propose examining discursive coherence and discursive agreement as two separate elements of field emergence. In the following, we empirically assess the discursive evolution of the field of sustainability in higher education.

EMPIRICAL SETTING: THE ONLINE FORUM FOR SUSTAINABILITY IN HIGHER EDUCATION

In the early 1990s social movements, comprised of student activists and movement organizations such as the Student Environmental Action Coalition, the National Wildlife Federation and the Sierra Club, began to pressure colleges and universities in North America to institutionalize new practices, such as recycling, energy management, renewable energy production, pollution reduction, and waste minimization under the umbrella term of "sustainability" (Eagan & Orr, 1992; Keniry, 1995; Lounsbury, 1998, 2001). At first higher education institutions resisted these pressures, preferring to leave sustainability issues to student groups, arguing against the costly nature of these new areas, and insisting that these issues were beyond the scope of their institutions (Eagan & Orr, 1992). However, over time this field shifted from primarily an unsettled site of contestation between student activists and their universities to a settled one of organizational commitments, annual conferences that brought together movement and organizational attendees, and the widespread adoption of voluntary reporting standards.

This shift was undergirded by ongoing discursive interaction among an unlikely cross-section of interested actors, including students, non-profit organizations, staff, regulators, faculty, and administrators who interacted regularly over time in new online spaces that centered on the field of sustainability in higher education. In this study, we examine the primary site of online conversation in this field, which is a forum that was set up in 1992 as an extension of a book titled *The Campus and Environmental Responsibility* (Eagan & Orr, 1992), in which a section called "A Plea for Networking," stated, "We urge everyone to share their ideas, their successes, and their failures… [the forum is] dedicated to sharing ideas and experiences from similar

campus environmental initiatives nationwide." The forum would become the central discussion arena for this field.[1] We became aware of the forum during participant observation with a campus sustainability team when the informants frequently mentioned it as their go-to resource for information and a place where they could "connect with their peers."

In this study, we focus on the period between 1992 and 2010, because by 2010 the field exemplified shared understanding of field practices through both normative and regulatory channels -*The Princeton Review* began to publish rankings of how schools compared across a standard set of sustainability activities and the U.S. Environmental Protection Agency (EPA) began collecting greenhouse gas emissions data on large colleges and universities. Between 1992 and 2010, 1,540 individuals from 641 organizations, including colleges and universities, non-profit organizations, businesses, and government agencies engaged in the conversations on the forum. The forum provide a large-scale, real-time, longitudinal view of the discourse in the nascent field of sustainability in higher education.

METHODS AND ANALYSIS

The forum conversations as backstage discourse

Prevailing approaches to studying discourse in fields have primarily focused on discourse that is produced in "front-stage" performances (Goffman, 1959) – such as such as press releases and industry reports – whereas much of the processes of mobilization and collective action to create shared understanding in a field occurs "backstage," in conversations that are typically closed off from public view (Kellogg, 2009; Mair & Hehenberger, 2014). Our data of online

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[1] In 2009 there was an attempt to shift the field conversations to a technologically-superior platform that was organized under topics and threads and could have provided a better structure to the field discourse. But between October 2009 and December 2010, there were only 592 posts to this new platform, while the forum that we study had 1,662 posts over the same period of time. In 2016, the new platform was discontinued, as the threads on it had an average of 400 days since their last posts.

conversations between field members represent "backstage" discourse because they are produced

by field actors for field actors. Additionally, the data do not suffer from the problems of

retrospective accounts of a field's development. The conversations include not only the

perspectives of those who endured in the field over time, or those who became leaders, but they

include the real-time conversations between individuals who played both major and minor roles

at various points. While these data are not free from attempts at individual impression

management, we argue that they are more representative of "backstage" interactions, as

individuals in the forum frequently express frustration, quarrel, seek help, reveal that they do not

believe that leaders in their organizations care about sustainability, and admit that they do not

know the best way to carry out their work. These types of conversations are essential to the

formation of a field, and yet they are absent from most existing studies.

Identifying issues in the forum discourse

We analyze the full message content of all of the conversations in the online forum from

when it began in 1992 through the end of 2010, which total 9,540 separate messages (3,509,274

words). Based on the technical design of the forum, all the messages were sent in a "reply all"

fashion to all members – the forum operates on a single level, without separate threads or issues.

As the online forum we study has no formal structure of conversations by topic, we employ

quantitative text analysis to identify and trace issues in the discourse over time. To identify the

issues in the discourse, we first analyzed the messages inductively, using an unsupervised topic

modeling algorithm called Latent Dirichlet Allocation (LDA) and the software program

MALLET (Blei, 2012; McCallum, 2002; McFarland et al., 2013). Topic modeling is a text

analysis approach that groups words based on their co-occurrence in a document (in our case a

"document" is a single message on the forum) and results in groups of words, which form topics, based on the frequency to which they co-occur in a document together (Blei, 2012; DiMaggio et al., 2013; Mohr & Bogdanov, 2013). To analyze the text, we first applied MALLET's English language exclusion dictionary to remove common stop words, such as "I", "it", and "the," from the text, which is standard practice in topic modeling. We also excluded all of the forum member's names and nine of the most-commonly used words, to separate topics into more distinct categories or issues.[2]

We then ran the topic model analysis, starting with 100 topics and re-running the models with more topics and fewer topics until the word lists formed distinctive and coherent topics, indicative of issues. Each topic is comprised of a list of 20 words that co-occur frequently together in the same messages. As previous scholars have indicated, the standard approach for determining the optimal number of topics is coherent topic interpretability (DiMaggio et al., 2013; Giorgi & Weber, 2015; Tangherlini & Leonard, 2013). Therefore, after examining the various models, we decided that the 75-topic specification provided the right balance of coverage, coherence, and distinctiveness. In this paper, we focus on six topics of theoretical and practical interest that we identified in the topic modeling procedure. Our approach is similar to Miller (2013), who produced 50 topics to balance topic cohesion, but then chose to compare six topics for interpretability.

The six topics (or issues), which we have labeled from the word lists and our knowledge of the field, are: 1) *compliance*, 2) *nature*, 3) *politics*, 4) *metrics and evaluation*, 5) *efficiency*,

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[2] The additional words that were removed in the analysis were: sustainab*, environment*, campus, university, college, green, education, office and school.

and 6) *the environmental movement*. The topics and associated word lists are shown in Table 1.1.

Messages about *compliance* primarily focus on a regulatory approach to environmental

problems, utilizing terms such as "EPA," "health," "safety," "regulations," and "standards."

Nature encompasses discussions of "endangered," "species," "wildlife," "earth day," and

"habitat[s]." *Politics* contains words such as "congress," "senate," "vote," "Washington," and

"president." *Metrics and evaluation* includes discussions of "surveys," "ratings," and "rankings,"

and also references to field-specific evaluation tools such as "Cool Schools" and "AASHE

STARS." *Efficiency* includes terms such as "conservation, "cost," "data," "reduction," and

"saving." And, finally, talk of *the environmental movement* includes terms such as "action,"

"campaign," "coalition," and "movement," and focuses on the collective action within this field.

-------------------------------------Insert Table 1.1 about here-------------------------------------

The topic model analysis produced a matrix of the six issues by the 9,450 forum

messages, with percentage figures for the probability of each topic in each message. The topic-

message matrix enables us to trace issues by message authors and groups over time as well as

helps us identify which messages are most associated with each issue.

Identifying groups on the forum

In addition to identifying the issues in the discourse, we also identified the authors of the

messages and the groups to which the authors belong, enabling us to measure the degree to

which each group discusses each of the issues over time. One co-author and one research

assistant worked to identify the 1,540 individuals on the forum, utilizing information from the

messages (such as email addresses and signatures), as well as details from organizational

websites and resume websites such as *LinkedIn*. We were able to identify the authors of 97% of the messages, and we coded each individual as belonging to one of thirty group categories, as shown in Table 1.2.[3]

----------------------------------Insert Table 1.2 about here ------------------------------------

We narrow our subsequent analyses to the ten most active groups in the forum, whom we consider the core members. As shown in Table 1.2, these groups are: 1) sustainability managers, 2) students, 3) recycling managers, 4) faculty, 5) non-profit workers, 6) facilities management staff, 7) activists, 8) business people, 9) environmental, health, and safety (EHS) staff, and 10) energy managers. The messages from these groups represent 85% of the overall forum messages and enable us to make more meaningful comparisons across the most central actors.

Measuring discursive coherence

We construct two variables to measure the degree of discursive coherence on the forum over time. The first is a variable that is at the group level, which we term "discursive distance," and the second is at the field level, which we term "discursive coherence." While we are ultimately interested in discursive coherence at the field level, it is helpful to see the discursive distance between groups in order to understand the underlying dynamics of the discourse in the field. Discursive distance is a measure of how much more or less one group discusses the six issues in their messages on average compared to the other groups in a given period. To measure discursive distance, we calculated the difference between the percent of overall words in a group's messages from a topic list compared to the average percentage of overall words in all

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[3] One additional category, "unidentifiable," was used for individuals whom we could not identify. This category comprised 2.9% of the overall posts.

other groups' messages from the same topic list over the same time period. The resultant figure

is a percentage and it can be positive or negative, depending on whether or not a group discussed

a focal issue more or less compared to the other groups. For example, if one group discussed an

issue in 4% of their discourse in a year and all the other groups' discussion of this issue averaged

9% in that year, then the focal group's discursive distance for that issue in that year would be -

5%. Finally, we take the absolute value of each distance score by topic and sum them by group in

a given year to get a total discursive distance score for each group in each year.

To measure discursive coherence at the *field* level, we go one step further. We start with

the groups' distance scores by year (across all topics). Then, we calculate the average of all the

distance scores in a year across all groups. Finally, we take the reciprocal of that number to

calculate discursive coherence. So, the lower the discursive distance of the groups in a year, the

more similar the groups' discourse is to one another, and the higher the discursive coherence is at

the field level. It is important to note that neither accounts for the *amount* of discourse in a given

period. While the sheer quantity of conversations may be a meaningful consideration in the

evolution of a field, we are concerned in this paper with the characteristics of the content of the

conversations and not with fluctuations in total discourse.

Measuring discursive agreement

In order to measure our second key concept, discursive agreement, we first recognized

that agreement and disagreement operate relationally – they emerge from interactions between

individuals. Therefore, our unit of analysis for measuring the level of agreement in the forum is

the conversation. Our first step in calculating discursive agreement was to extract all of the

forum messages that were part of a conversation, and disregard single posts that did not elicit any

responses. We therefore retained all messages with the same Subject line (or were a Reply to that

same Subject). For example, "Your Green Building Standards/Rating System" and "Re: Your

Green Building Standards/Rating System" were considered part of the same conversation.[4]

Narrowing the forum messages to those that were part of a conversation resulted in 6,737

messages, or 71%, of the overall messages.

We then created a sample of these conversations to qualitatively code for the presence or

absence of disagreement. We purposefully sampled 20% of the overall conversations by issue

and by year, resulting in a sample of 1,257 messages grouped into 355 conversations. To create

this sample, we first calculated the percentage of words from each of our topic model word lists

that were present in each conversation. For example, a conversation with the subject "Toxic Lab

Waste" contained 24 instances of words from the *compliance* issue word list, including

"chemical" and "waste," out of 532 total words in this conversation, resulting in a 5%

composition of *compliance* for this conversation. We then selected the conversations with the

highest composition of words representing each issue by year to create the sample; this approach

enables us to answer the question of how much agreement or disagreement there was within

conversations related to a particular issue in a certain period. For example, we can analyze

whether or not conversations about *efficiency* exhibited more or less discursive agreement over

time.

We read each of the 1,257 messages in our sample of conversations in full and hand-

coded them for whether or not they exhibited disagreement. Then, we aggregated the message-

level disagreement up to the conversation level – resulting in two types of conversations: 1)

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[4] When multiple messages had the same subject line in different time periods, a manual check was done to see if they were building on the same conversation or if they were separate messages that just happened to have the same subject line.

those that exhibited disagreement and 2) those that did not exhibit disagreement, indicating relative agreement. To calculate inter-rater-reliability measures on our coding, one co-author and one research assistant separately coded a random sample of 10% of the sample (131 messages). The coders attained an inter-rater-reliability of .84, calculated and adjusted using Cohen's Kappa, which we consider an acceptable figure.

FINDINGS

Discursive coherence

Figure 1.1 is a graphical representation of the discursive coherence at the field level over time. As shown, the groups discussed the six issue of 1) *compliance*, 2) *nature*, 3) *politics*, 4) *metrics and evaluation*, 5) *efficiency*, and 6) *the environmental movement* to a more similar degree as one another over time, indicating a pathway towards greater discursive coherence. Figure 1.1 also indicates, however, that increased discursive coherence did not come about in a linear fashion. There are periods where the discourse becomes more and less coherent over time. For example, there was more coherence at the very beginning, and then coherence dropped before eventually rising. Therefore, in order to examine the process through which discursive coherence takes shape, we divide the forum into periods, based on our understanding of the history of the field.

----------------------------------Insert Figure 1.1 about here----------------------------------

Periodization

We consider the first period to be the early years of formation of this field, from 1992-1997. The most active group on the forum during this period was students, who authored over one-third of the posts. This is when the field was primarily a site of contention between social

movement actors (mainly comprised of student activists) and their universities. During this first period, colleges and universities were starting to respond to movement pressure by signing commitments to sustainability, but sustainability in higher education had not yet started to be professionalized. There were some very early gatherings during this period, but they were mainly aimed at mobilizing students. Non-profit organizations such as the National Wildlife Federation and Second Nature encouraged students to work to advance sustainability in higher education, holding campus and regional workshops to coordinate efforts.

We consider 1998-2003 to be the second period in our era of study. This period comprises very early moves towards professionalization in this field. During this period, sustainability managers surpassed students to become the most prominent group on the forum, authoring 29% of the posts, but students were still active on it as well, authoring 20% of the posts. The National Wildlife Federation expanded beyond training sessions and began to ask campuses to make public commitments to sustainability by enrolling in its Campus Ecology program. Additionally, regional networks began to form, with the most active one being Education for Sustainability West, which was founded in 2001.

The years 2004-2007 comprise the third period. This period is characterized by numerous commitments by colleges and universities, organizational foundings, and a large increase in the creation of new positions in sustainability management. In terms of commitments, hundreds of college and university presidents signed on to the American College and University Presidents' Climate Commitment, which was founded in 2006. In terms of organizational foundings, there was the creation of a consortium of higher education organizations committed to sustainability, called HEASC, which was formed in December 2005, and shortly thereafter in 2006 there was

the founding of the first, and what would become the only, professional association of sustainability managers in higher education – AASHE (the Association for the Advancement of Sustainability in Higher Education). AASHE began holding biannual conferences in 2006, and started designing a measurement tool for sustainability in higher education that same year. This period was also marked by an uptick in the creation of new sustainability manager positions at colleges and universities. A 2006 AASHE survey of sustainability managers indicated that two-thirds of their positions were created between 2004 and 2006, with only one-third of them being created prior to 2004. On the forum, sustainability managers authored 47% of the posts.

Period 4 is comprised of the years 2008-2010. This period began with another wave of hires. According to a 2010 AASHE staffing survey, more people were hired into sustainability positions in higher education in 2008 than in all previous years combined. There was also a settlement of activities that had begun in the previous period. For example, AASHE's biannual conference became an annual gathering starting in 2010. Finally, the most distinctive characteristic of this period is the development of standards of evaluation in the field, in the form of ratings and rankings. AASHE launched a rating system, called STARS (the Sustainability Tracking and Rating System) in 2009. By early 2010, the STARS ratings were feeding in to new *Princeton Review* rankings of schools based on their sustainability activities.

It is important to note that it is difficult to definitively demarcate the boundaries of these periods. There are many milestones that occurred over these decades in the field. However, while the cut points are difficult to precisely determine, what is most important in the periodization is that each period is characterized by a similar type of activity in the evolution of the field (i.e. there is more similarity with what was happening within a period than across periods). However,

considering the impact that these period cut points have on our subsequent analyses, we ran a robustness check with a different set of cut-points for the periods, and found that our results are robust to these alternative periodizations that adjusted each period by one year either side.[5] Therefore, we have kept the above periodization, and the relative composition of the issues over these periods is shown in Figure 1.2.

----------------------------------Insert Figure 1.2 about here----------------------------------

Figure 1.2 shows that there have been some clear shifts in the relative discussion of the issues over time. For example, when the forum began, *compliance* was the most frequently discussed issue, comprising 25% of the share amongst the six issues, but it waned over time, only comprising 10% in the final period. Another shift was the frequent early discussions of *nature* and *politics*, which both fell in relative usage compared to other issues over time. Discussions of *metrics and evaluation* increased over time, and especially towards the end of our period of study. The issue of *efficiency*, which had been present in the field to a much lower extent at the beginning, increased steadily, from 15% in the first period to 49% by the last period. *Efficiency* dominated from Period 3 onward. Finally, the issue of *the environmental movement* was relatively stable over the periods except for a decrease in the last period.

Figure 1.3 shows a heat map of the absolute discursive distance of each group compared to the other groups by period. Generally, as we saw in Figure 1.1**,** the overall distance decreases over time, indicating increasing coherence. However, the heat map reveals outliers in each period

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[5] With the robustness checks, Period 2 consistently has the least coherence (whether it ends in 1997 or 1998), Period 4 consistently shows the most coherence (whether it begins in 2008 or 2009), and Periods 1 and 3 show a similarly medium degree of coherence (whether Period 1 begins in 1997 or 1998 and ends in 2003 or 2004 and whether Period 3 starts in 2004 or 2005 and ends in 2007 or 2008).

that were not visible by looking at the field level. In the following, we unpack our case through a periodization in which we examine which groups were more or less discursively aligned with the wider discourse and analyze how different groups invoked different issues over time. Our periodization also relies on the graphs shown in Figure 1.4, which illustrate the discursive distance by group for each of the six issues in each period. Significant distance from the mean is shown at the p<.05 level and discussed in the following sections.

---------------------------------Insert Figures 1.3 and 1.4 about here---------------------------------

Period 1: 1992-1997

In the first period, 1992 - 1997, the field was more discursively coherent than in the following period, but not as coherent as it became over time. As shown in Figure 1.2, the most frequently discussed issues were 1) *compliance* 2) *nature* and 3) *politics*. Examining the groups' discussion of the issues in Figure 1.4, we see that none of the groups are over- or under-represented in the amount to which they discuss *compliance*, indicating that there was alignment across the groups regarding the relative pertinence of this issue to the field. Much of the *compliance* discussion involved field members explaining government policies or grants to others. For example, one message that contained a high percentage of *compliance* language stated, "The U.S. EPA has a great pollution reduction and energy efficiency program called Green Lights."[6] Another detailed, "I believe that ozone depleting substances are ALREADY regulated under Section 608 of the Clean Air Act (1990)."[7] Actors invoked laws, rules, and government bodies when discussing *compliance*.

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[6] Green Schools Forum, 4 May 1996.
[7] Green Schools Forum, 1 November 1993

Nature was also prevalent in the discourse during the first period. However, as shown in Figure 1.4, activists discussed this issue statistically more than other groups. In the forum, activists are individuals from organizations such as Greenpeace, campaigners for organizations such as Public Interest Research Groups (PIRGs), and self-described student activists. Messages from activists about *nature* talked about "the fight to strengthen the Endangered Species Act,"[8] and work to "establish the Mojave Desert as the nation's 52nd National Park."[9] Although activists discussed *nature* regularly in this period, other groups did not discuss the issue as much. In fact, activists are generally an outlier in this period and remain an outlier over time, revealing their discursive distinctiveness throughout the evolution of this field, which is interesting, considering that the field started in large part based on their efforts. As shown in Figure 1.4, activists discussed three issues more on average than the other groups: 1) *nature*; 2) *politics*; and 3) *the environmental movement*. When activists discussed *politics,* they urged others to mobilize and call legislators regarding anti-logging bills, the Endangered Species Act, and social justice legislation such as wage bills. An example of the messages about *politics* include: "The ESA [Endangered Species Act] is under tremendous pressure in Congress right now and will likely be significantly weakened….Call your representative and 2 senators on Tuesday, July 11."[10]

Overall, we characterize the field in the first period as exhibiting medium coherence compared to the subsequent periods. This is evidenced by the overall discursive distance measure of 7% and the underlying differences between groups in their discussion of the issues. Four out

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[8] Green Schools Forum, 15 November 1993
[9] Green Schools Forum, 5 April 1994
[10] Green Schools Forum, 10 July 1995

of the six issues were characterized by a group that discussed it statistically more, on average, with activists and students the only outliers in their discussion of the topics.

Period 2: 1998-2003

The second period, from 1998 - 2003, exhibits the least discursive coherence compared to all other periods in our study. As shown in Figure 1.4, each issue had a group that discussed it statistically more on average than the other groups, and five different groups were outliers. In this period individuals from each group focused most on those issues that we would stereotypically associate as the core interest of their group.

For example, talk of *compliance* dropped, but it was still employed by environment, health and safety (EHS) officers, who discussed it more than other groups. In the 1980s EHS staff were hired to manage environmental issues from a regulatory standpoint, focusing on legal requirements for pollution, toxic waste, and safety. EHS staff are the quintessential compliance-oriented group, so their focus on *compliance* is not surprising, even as other groups discussed the issue less. Overall, the field was moving away from compliance and towards voluntary efforts that went beyond compliance. In this period, discussions of *nature* also dropped overall, but students discussed *nature* the most, talking about Earth Day and activities such as planting trees, cleaning up rivers, and collecting money for rainforest preservation and endangered species. Students shared opportunities for conferences, trainings, and organizations to fight for the protection and restoration of the natural environment. For example, in 1998, a student wrote of an upcoming event, stating that:

> This three-day training, co-sponsored by the NWF [National Wildlife Foundation]'s Campus Ecology Program and Xavier University's Center for Environmental program, will give participants the information and skills necessary to protect the Mississippi watershed, on campuses and in

communities. Participants will learn how to conduct waste audits, take part in skills training workshops, and participate in a "toxic tour" along the polluted banks of the Mississippi river.[11]

Between 1998 and 2003, talk of *politics* and *the environmental movement* also dropped; however, as in the first period, activists continued to be the strongest proponents of both issues. Other groups began to refer to *the environmental movement* less on average, while the activists began to discuss it even more, creating a discursive wedge between the groups. This is interesting, because we begin to notice that activists are more likely to discuss three issues that were more central to the field at the very beginning but waned over time in other groups' discourse – *politics*, *nature*, and *the environmental movement*.

In the second period, the issue of *metrics and evaluation* began to be discussed by business people, who were architects, consultants, and product and service suppliers. In this period business people were compiling "green guides" for eco-friendly products and evaluations. They were using the forum to both gather information for these evaluations as well as publicize their products. Later on, sustainability managers would attempt to grab hold of rankings and evaluations in the field, but it is interesting to note that they were not the initial proponents of *metrics and evaluation* in sustainability in higher education.

In this period, talk of *efficiency* increased. While this issue would eventually become central to the discourse of most groups, the analyses reveal that energy managers were the earliest group to regularly discuss *efficiency*. In this period, messages that contain a high degree of *efficiency* focused on adopting practices for energy and water conservation as well as cost savings. For example, an energy manager asked, "If anyone out there has adopted an energy policy on their college/university campus, i.e., something for staff and faculty that states

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[11] Green Schools Forum, 8 February 1998

temperature set points for summer/winter…"[12] However, in closely reading messages that had a high amount of *efficiency* language, it becomes clear that some actors also began to employ *efficiency* in their discussions of how to frame and sell sustainability in higher education by discussing it in terms of cost savings and return on investment. For example, a faculty member shared a tool that calculated cost savings for energy efficiency measures, stating that it was "useful in making our case for conservation measures such as powering down monitors."[13] Students invoked *efficiency* when asking for help in framing projects to external audiences, such as university administrators; they used terms such as "cost/benefit analysis", "payback", and "economics." One student said, "I'm putting together a paper on the economics of green building design, with the hope that this will be a useful document for showing to the administration here at Williams College or elsewhere."[14]

Overall, in this period, each group focused more on those issues that were of core interest to them and talked past one another more than in other periods. Discursive coherence was at its lowest compared to all the other periods, evidenced by the overall average distance of 8%. Additionally, as shown in Figure 1.4, all six issues included a group that discussed the issue more, on average, and five different groups (EHS staff, students, activists, business people and energy managers) were outliers in the degree to which they discussed one or more of the issues.

Period 3: 2004-2007

In the third period, 2004 - 2007, the overall distance between groups decreased, indicating a move towards greater discursive coherence, which would continue into the final

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[12] Green Schools Forum, 3 November 1999
[13] Green Schools Forum, 20 May 2002
[14] Green Schools Forum, 16 October 2002

period. While many of the issues continued to be over- or under-represented by a single group, both *efficiency* and *metrics and evaluation* did not have any group discussing them statistically more or less than the others, indicating increased coherence regarding the relevance of these two issues to the field.

During this period, *efficiency* emerged as the most central issue. As we found in the previous period, the discourse reveals that not only was *efficiency* being employed to discuss priorities inside the field but it was also being utilized to discuss strategies for framing issues to external audiences. In a post that contained a high percent of *efficiency* language, an energy manager stated that he wanted to install energy feedback systems in his college's dormitories, but he needed data to support the investment, because the group they needed the investment from "needs more convincing." He continued, "I am seeking additional results to support the argument [sic] these feedback systems are effective in motivating conservation behavior."[15] *Efficiency* was becoming a central issue in the field and continued to also serve as a legitimating strategy for communicating sustainability to external audiences. Another *efficiency* message that was written by a student in 2005 outlined their strategy of framing through the lens of *efficiency* quite clearly:

> I'm a student at Columbia University and part of the Earth Coalition, Columbia's Green Campus and Community Initiative. Columbia is about to take on a massive expansion project that will nearly double the size of our campus in the next 20 years…I'm writing to ask for specific examples of how green design has saved your institution money, and how money has been raised to off-set the additional up-front cost. From the conversations we've had with administrators and staff, it is clear that economics are the bottom line here. Therefore, we are looking to develop a very business-minded proposal.[16]

This student was pressuring her school to change, but she planned to frame sustainability in the language of something that the university valued – *efficiency* - indicating the beginning of

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[15] Green Schools Forum, 12 June 2007
[16] Green Schools Forum, 22 Jan 2005

some discursive alignment between movement members and the targeted colleges and universities. Seven years after this student's message, the expansion project at Columbia University that she aimed to influence became the first LEED (Leadership in Energy and Environmental Design) Platinum certified campus in the U.S., attaining the highest possible level of green building certification. This outcome highlights the fact that these conversations do not just reside in this discursive backstage, but are essential for the mobilization and strategic framing that underpin action in the field.

The second-most discussed issue in this period was that of *the environmental movement*. As before, this issue was primarily discussed by activists, including individuals from organizations such as the National Wildlife Federation, the Energy Justice Network, the Environmental Justice and Climate Change Initiative, and Greenpeace, who persisted in talking about *the environmental movement* and *politics* more on average. *Nature*, *politics*, and *compliance* were all discussed less overall than in the previous period, and would continue to decline in the final period. The continued decrease in *compliance*, which was talked about the most in this period by staff in facilities management, hints at a schism between what it means for the field to be centrally focused on compliance versus voluntary commitments to sustainability.

Overall, the third period was more discursively coherent compared to the previous period. However, there were some issues whereby certain groups were statistically distinctive, which follow on generally with the patterns we observed in the previous periods. We characterize the third period as one of medium coherence. This is evidenced by the overall discursive distance of 7% and the underlying differences between groups. As shown in Figure 1.4, four out of six of the

issues were discussed more on average by a group and three groups (activists, facilities managers, and EHS staff) were discursive outliers.

Period 4: 2008-2010

In the final period, 2008 - 2010, the overall average distance between groups was the lowest of all the periods thus far, indicating a continued path towards discursive coherence. Figure 1.4 shows the lessening of distance across groups over the issues. The conversations in this final period were even more focused on *efficiency* and *metrics and evaluation*, while other issues either decreased or remained constant.

Metrics and evaluation increased from 10% of the discourse across the six issues in the previous period to 28% of the share in this period. The primary measurement tool in this field was the Sustainability Tracking, Assessment & Rating System (STARS), which was developed between 2006 and 2009. It therefore makes sense that the discourse was heavily oriented towards *metrics and evaluation* during this period. Additionally, towards the end of this period *The Princeton Review* began publishing green school rankings based on the data from the STARS reporting tool. The discursive distance for *metrics and evaluation* indicates relative coherence between the groups, with no one group discussing the issue in a statistically different manner. Sustainability managers, the nascent professional group in this field, contributed extensively to the amount of discourse on *metrics and evaluation*. They were increasingly responsible for measuring progress on sustainability within their colleges and universities. Messages with a high composition of *metrics and evaluation* in this period discussed questions of how schools should measure or assign points to certain activities, whether or not schools should pay to participate in rating systems, and whether or not it was better to enable multiple rating systems to persist or to

strive to have a singular system. One sustainability manager shared a letter that she had written

to the non-profit organization the Sierra Club out of frustration with the fact that they were

collecting data that differed slightly from the STARS tool. She wrote the following:

> I would implore you to please review your survey form for next year, and mirror the questions and data that are being used for the AASHE STARS sustainability tracking rubric, in which we are a charter participant. In that way, it will be easier for us to respond to your questionnaire, using the same data we will be collecting and regularly updating as part of that rating and benchmarking system. The data, which will be collected through the STARS program was rigorously evaluated by institutional sustainability practitioners and advisors for being the objective metrics we SHOULD be evaluating and using to measure our sustainability progress.

As exemplified in this excerpt, questions of commensuration and accountability became

more central to the discourse in this period. This was one of the few changes in the discourse

between the third and fourth periods. As was the case in the previous period, activists continued

to discuss three issues that were of decreasing discursive importance to the rest of the field

members – *nature*, *politics*, and *the environmental movement* and facilities management staff

discussed *compliance* more than other groups.

We characterize this final period as one of high discursive coherence compared to the

previous periods. This is evidenced by the lowest discursive distance between groups, at 5%.

Four out of six of the issues included a group that discussed the issue more, on average, and only

two groups (i.e. activists and facilities managers) were outliers.

Discursive agreement

In our investigation of the evolution of discourse in this field, we have also analyzed

discursive agreement, or the level of agreement between field members regarding their opinions

on *how* different issues should operate in the field. As described in our methods section, we hand

coded a purposeful sample of 1,257 messages grouped into 355 conversations that contain a high

amount of discourse representing each of the six issues in each period. Through our analyses, we

find that the majority of conversations reflected agreement between field members – 78% of the

conversations contained no disagreement. A typical conversation in which individuals expressed

no disagreement focused on sharing information. For example, in 1999 a forum member wrote:

> I am currently involved in designing a proposal for a composting program here at [University Name]…I would appreciate if you could send any relevant information regarding your university's composting program. Information such as cost-benefit analysis, start-up procedures, design criteria, etc.

Individuals from Brown University, Cornell University, and Rensselaer Polytechnic

Institute responded by sharing advice and experience that they had gained from instituting

composting programs. They shared information from conferences, contact details for schools

with successful programs, and names of waste companies that offered composting services.

Overall, 22% of the coded conversations exhibited disagreement. These conversations

often began in a similar way as the example above, with an individual asking for help or advice,

but they were followed by disagreement in the replies. For example, in the third period a

discussion about *efficiency* started with an individual writing the following:

> [My university] is interested in learning about steps taken, policies implemented, and education campaigns launched that address energy conservation regarding computer use. Many computer departments advise for everyone to leave computers on overnight so they can receive updates. What have your schools done to ensure that computers are taking up the minimum amount of energy necessary during hours of non-usage?

The first response to this post raised a point of contention regarding these efforts at

efficiency, stating, "I realize that you asked about behavioral change, but I can't resist

editorializing a bit. It is my opinion that structural improvements to infrastructure are more

effective than behavioral changes in improving sustainability performance." Although both

message authors acknowledged that *efficiency* was central to sustainability, they had different opinions on the best pathway to achieve *efficiency*. In fact, in the third period, other discussions about *efficiency* highlighted similar points of disagreement, for example when an individual responded to someone's disparaging talk of behavior change initiatives by saying, "It is important to BOTH address human behavior AND building systems."

We find through our hand coding that in the last period *efficiency* and *metrics and evaluations* conversations contained a high level of disagreement, even though these two issues had reached relative discursive coherence by this time. For example, in response to a post about *metrics and evaluations* that asked about using kW/gsf (kilowatts per gross square footage) to measure energy usage in buildings, an individual responded that, "…it just seems like there are so many things that prevent you from making an apples-to-apples comparison on the kW/gsf metric if you're going to be identifying or even celebrating a 'leading building' as you say." The message authors were both talking to a similar degree about *metrics and evaluations*, but they differed in their opinion of the best metrics for evaluating the sustainability of a building. In other *metrics and evaluations* conversations during this time, there was also disagreement regarding concerns such as how different green building standards weighted materials in their scoring system and whether or not field members should use one energy tracking tool versus another. Overall, we find that although *efficiency* and *metrics and evaluation* became more coherent in periods three and four, with no one group statistically discussing them to a greater or lesser extent, field members disagreed with one another when talking about these issues.

In fact, when we calculate the discursive agreement surrounding each issue in each period, we find that when an issue exhibited higher discursive coherence, the conversations

related to that issue actually contained more *disagreement*. There was an inverse relationship between discursive coherence and discursive agreement, with a -.27 correlation between the two measures. On average, 74% of conversations about issues that were coherent in a period exhibited agreement, while conversations about issues that were not coherent had 79% agreement. Furthermore, this pattern held within each issue. When *compliance* was not coherent, its agreement level was higher, at 70%, compared to 65% when it was coherent. When *efficiency* reached coherence, its agreement level dropped from 85% to 75%, and during the periods when *metrics and evaluation* was coherent, it dropped from 80% agreement to 77% agreement. For the other three issues, coherence was never reached and they had relatively higher levels of agreement than for any of the other coherent issues – the *environmental movement* had 78% agreement, *nature* had 81%, and *politics* had 85%.

Why might more coherent issues exhibit more disagreement? One reason may be that more coherent issues are judged by field actors as more consequential to the field, and therefore are seen as more "worthy of debate." Based on this consideration, we decided to carry out an additional analysis to see whether or not messages about more coherent issues received more attention, or more replies, than messages about less coherent issues.

The role of attention in discursive coherence and agreement

In order to investigate whether or not messages related to coherent issues received more attention, we calculated the response rate to the 20 initial messages (i.e. those with a new subject line) most closely related to each issue (i.e. those that contained the highest percentage of words from each topic word list) in each of the four periods. This sample contained 480 messages, or 10% of the overall first messages.

We find that posts related to coherent issues were more likely to receive a response and received more responses on average compared to posts related to incoherent issues. Overall, initial messages about coherent issues had a 47% response rate, while initial messages about issues that were not coherent had a 19% response rate. On average, the 20 initial messages in each period generated 39 responses for coherent issues and 11 responses for issues that were not coherent. The correlation between coherence and response rate is .64.

--------------------------------Insert Figure 1.5 about here----------------------------------

As shown in the graphs in Figure 1.5, we find the same pattern in every period – more coherent issues received more attention - but interestingly the difference in response rates between coherent and non-coherent issues diverged even more over time. Over time the gap in attention grew. As shown in the graphs, this was mainly driven by an increase in attention towards more coherent issues, which were increasingly more likely to receive a response and more likely to receive more responses on average. For example, in period four, the initial messages in *metrics and evaluation* and *efficiency*, which were both coherent, had a 70% response rate (70% of the initial messages related to these two issues received at least one response) while *compliance*, *nature*, *politics*, and the *environmental movement* had a 20% response rate (only 20% of the initial messages in these areas received a response). In fact, there were zero responses to the 20 initial messages about the *environmental movement* in the last period – none of them materialized into conversations, which would have opened the door for debate. When someone posted a message that was highly related to the environmental movement, it did not solicit a response in this last period. The overall correlation between the number of responses an initial message generates and the presence of agreement in the eventual

conversation that ensues is -.33. When a post receives more responses, the ensuing conversation was more likely to exhibit disagreement.

Based on these analyses, we conclude a number of interesting findings. First, the more coherent an issue is, the more that initial messages about that issue receive attention (measured by the response rate and number of responses to initial messages). Second, when messages receive more responses there is a higher likelihood of disagreement in the conversation. Additionally, our hand coding of conversations showed that even when we only analyze messages that turn into conversations, coherent issues were still more likely to exhibit disagreement. Together, these findings support the idea that more coherent issues are seen as more consequential, and therefore more "worthy of debate" in the nascent field, and they also show that there is value in separating discursive coherence from discursive agreement as the two do not necessarily go hand-in-hand.

ROBUSTNESS CHECKS

Author dispersion

In interpreting our results, we wanted to check whether or not any of the issues we identified were primarily being driven by either a small number of individuals or one or two groups. Therefore, we examined the authors of the 100 posts that contained the highest percent of words from each issue. We found that the discussion of the issues was dispersed across numerous individuals and groups, which allays the concern of the influence of a small number of actors driving any of the issues. As shown in Table 1.3, the 100 posts that most closely represented each issue contained a minimum of 44 separate individual authors, meaning that no one individual was contributing more than 2.2% of the top 100 posts. Additionally, the minimum

number of groups contributing to the 100 posts for any single issue was 8 out of a possible 10, indicating that multiple groups discussed each of the issues.

----------------------------------- Insert Table 1.3 about here -------------------------------------

Minority groups

Additionally, we wanted to test whether or not the outlier groups in each period were discursively distinct because they contributed fewer messages in a period. We therefore ran a robustness check with period 3 (2004 - 2007) and period 4 (2008 - 2010), in which activists were the predominant outlier compared to the other groups that we analyzed. We chose these two periods because they had enough representation from other smaller groups to make a comparison, unlike the earlier years which were scarcer in terms of messages from other groups.

To ensure that outliers were not being driven by their smaller number of messages, we ran a robustness check with 12 additional groups that had fewer messages than the activists during these two periods.[17] The results of the robustness check are shown in the heat map in Figure 1.6, which displays the discursive distance for each group compared to all the other groups, showing a color gradation ranging from the highest distance shaded in red and the lowest shaded in green. The results show that the outlier position of the activists' discourse during these two periods is not attributable to their relatively smaller number of messages. Even when compared to the 12 other smaller groups, activists are still far and away the most discursively distant group, averaging 20% distance in period 3 and 13% distance in period 4. In period 3,

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[17] Additional groups include: 1) Administrative assistants (85 messages); 2) Administration members (32 messages); 3) Business Services staff (90 messages); 4) Capital Planning staff (25 messages); 5) Dining Services staff (23 messages); 6) Housing staff (17 messages); 7) Information Technology personnel (15 messages); 8) Lab managers (86 messages); 9) Public Sector workers (42 messages); 10) Researchers (inside university setting) (107 messages); 11) Researchers (outside university setting) (11 messages); 12) Student Affairs staff (27 messages).

excluding activists, the other infrequent posters averaged 6% distance, less than one-third of the distance of activists. These results are similar for period 4, whereby the other minority groups averaged 5% distance and the next-closest group had a distance measure of 10%. We are therefore confident that the activists' outlier status is not due to their lower number of messages, but is rather a measure of their distinctive discussion of the issues.

---------------------------------Insert Figure 1.6 about here----------------------------------

Along these same lines, in the consideration of the changing composition of issues, it is worth noting that group entry and exit is not the sole contributor of the discursive changes in the field. While inter-group replacement is likely a factor in changing field-level discourse (e.g. students' activity in the forum drops over time, so issues that students talk about more frequently, like *nature*, are likely to then drop as well), it is not the whole story. For example, if we just examine the students' discursive trends, we see that the within-group discussion of issues shifts over time, becoming more similar to the overall trends we see in the field-level discourse. For example, students discussed *efficiency* more than ten times as much in 2010 compared to 1992 and *the environmental movement* six time less over the same period. This preliminary evidence reflects that the entry and exit of groups cannot fully explain the discursive change at the field level; there are also meaningful within-group changes over time.

DISCUSSION AND CONCLUSION

In this study, we investigate the backstage discourse among multiple actors in the emergence of a nascent field in order to shed light on how the language of a new field evolves and potentially coheres into a stable social order. The field that we have chosen to study in this

case - sustainability in higher education - sits at the intersection of movements and the organizations that they are attempting to influence and change. The field began as a site of classic movement versus target contention in the early 1990s but evolved over time to comprise new commitments, partnerships, roles, practices, and standards for operating.

By unpacking a case of discursive change in the evolution of this field from a site of contentious activity by disparate groups of actors to a settled field, we make three contributions, which we discuss in detail in the following. First, we contribute an approach for studying "shared understanding," and show that there is value in theoretically and empirically separating what we term "discursive coherence" from "discursive agreement." Second, we find that although discursive coherence increases in this field over time, it does not progress in a linear fashion, or cohere to the same degree at the same time for all actors in the field. Finally, examining the evolution of shared understanding in a nascent field that was founded in large part due to efforts by a social movement, we can better understand the dynamics between social movements and other actors in field construction projects.

Separating discursive coherence from discursive agreement

Our empirical analyses support the argument that there is value in separating discursive coherence from discursive agreement in what has to date been termed "shared understanding." Even though shared understanding has been identified as an essential indicator of field development and settlement (Fligstein & McAdam, 2012), it has been difficult to measure and trace over time (Mohr, 2005). In this paper, we separate 1) whether or not field members see the same set of issues as equally pertaining to a field (discursive coherence) from 2) whether or not they share opinions about how those issues should operate in the field (discursive agreement). By doing so, we find that the evolution from an unsettled and contentious field to a relatively settled

one is associated with increased discursive coherence over time, as actors reach relative consensus regarding which issues are core to this field. However, we find that once an issue reaches coherence it actually exhibits less discursive agreement, meaning that the actors are more likely to disagree about how to implement that issue in the field. Our findings show that more attention is paid to coherent issues in the discourse, supporting the idea that field actors view more coherent issues as more consequential and therefore more "worthy of debate," and those issues actually draw more contestation as actors vie for control over the fate of the more consequential and central issues.

Thus, even as a field exhibits greater discursive coherence, there is still room for underlying contestation and disagreement over issues, in the form of both the presence of persistent discursive outliers (which we found with the activists in this case), as well as the ongoing disagreement over how central issues should operate. In fact, increased discursive coherence may enable a certain amount of healthy conflict and disagreement. Before actors can argue about the best way to go about addressing an issue, they must first identify a set of mutually-agreed upon issues from the world of possible concerns. We find that discursive evolution in a new field exhibits similar processes to agenda-setting in a legislative arena (Baumgartner & Jones, 2010; King, Bentele, & Soule, 2007). Similar to legislative politics, fields that emerge from social movement pressure for change are churning locations of interaction in which new issues ebb and wane in importance, often spurring controversy and contention (King & Pearce, 2010). Fields are very rarely completely settled inasmuch as discursive coherence creates opportunities for disagreement among members of the field about how to handle relevant issues. By distinguishing between discursive coherence and discursive

agreement, we offer greater conceptual clarity for measuring shared understanding in fields, as well as greater empirical purchase for studying discursive indicators of field development.

The path towards discursive coherence

Our study also provides evidence that the discourse in fields does not necessarily cohere in a linear fashion (Fligstein, 1997, 2001; Fligstein & McAdam, 2012; Martin, 2003). We find that some issues in the field of sustainability in higher education cohered early on, while others remained less coherent. Additionally, the discourse of some actors were aligned throughout the period of study, while other groups remained persistent outliers. Coherence did not increase at the same time and to the same degree for all of the issues across all of the groups in the field.

In the first period, there was medium coherence as to the relative importance of the core issues to the field. However, in the next period, there was actually less coherence. Each group emphasized issues that reflected their own concerns – such as *compliance* for environmental health and safety staff, *nature* for students, *efficiency* for energy managers, *metrics and evaluation* for business people, and *politics* and *the environmental movement* for activists. This is an interesting finding, because our knowledge of the field as having origins in contention may have led us to think that coherence would be lowest in the first period and then increase over time. However, in the very first period there is a smaller group of people who are mainly interested in pursuing changes to practices inside colleges and universities. At first, they are generally on the same page about which issues matter to this field. However, the lack of coherence is strongest in the second period, as more people enter the field, there is a greater diversity of actors regularly posting to the forum, and perhaps the stakes seem higher as it is becoming clearer that this field is going to affect a wide range of positions and practices. This is

when we see each group reflecting their core interests, as individuals carry their preferences, capital (social, economic, and cultural), as well as their habitus, or their dispositions, into the new field; these findings emphasize that even a nascent field is not a *tabula rasa* of social interaction (Bourdieu, 1984; Bourdieu & Wacquant, 1992).

Although the field reaches relative discursive coherence over time, we find that certain groups remain persistent outliers in the conversations. In our case, activists, who were members of groups such as Greenpeace and advocacy organizations, were ongoing contributors to the field's discourse, but they were persistently on the fringe. Activists remain discursively distinctive throughout the period of study, favoring issues such as *the environmental movement, nature,* and *politics*, rather than the issues of *efficiency* or *metrics and evaluation* that became more pertinent to the discourse of other groups over time. Additionally, when other groups began to refer to *the environmental movement* less on average, activists began to discuss it even more, creating a wedge between the groups. Such differences underlie the churning of contestation that likely characterizes many fields. Outliers, like activists in our analysis, may continue to engage in the field discourse as ongoing challengers who voice divergent views about what direction the field should take, even when all other groups' discourse coheres. So reaching relative discursive coherence does not mean that *all* actors have reached consensus as to the issues that matter to the field. In this case, we have a field that settled despite this persistently divergent voice.

Field formation out of social movement pressure

The final contribution of this study is that we are able to identify discursive patterns that are likely present in similar fields that are formed around issues that are promoted initially by social movements, but have eventual consequences for organizations. What is important in this

case is not only the patterns of discourse, but also how the content of the discourse changed over our period of study. We find that the discourse shifted in this movement-originated field, away from a social movement orientation and towards a more professional and rationalized lens on sustainability in higher education.

There have long been theoretical and practical concerns regarding processes of social movement professionalization (Hwang & Powell, 2009; Lubove, 1965; Staggenborg, 1988) and rationalization (Michels, 1911; Piven & Cloward, 1979), and debate has persisted regarding how these processes affect the degree to which a movement can maintain its radical stance (Zald, Morrill, & Rao, 2005). Added to that, there is recent concern that the field of sustainability and the associated area of corporate social responsibility have become institutionalized and (potentially) co-opted by organizations that emphasize the "business case" for sustainability, rather than the original substantive and broad agenda (Banerjee, 2008). Our evidence supports these concerns in part.

We find that the discourse in the field of sustainability in higher education cohered around *efficiency* and *metrics and evaluation* over time, indicating a trend towards rationalization. The field did not start out with a discursive focus on these issues, and while discussions of them grew in part through the entry of certain actors, such as sustainability managers and energy managers, it is also surprising that some of the actors who we would normally associate with the movement for sustainability, such as students, also adopted this discourse in this field. The discourse of *efficiency* reflects organizational concerns with cost savings, and sustainability was increasingly aligned with this rhetoric, especially through the focus on energy management and the conservation of resources. In terms of *metrics and evaluation*, the trend towards transforming goals or outcomes into quantifiable metrics has been

noted in prior research on commensurability (Espeland & Stevens, 2008; Meyer, 2010; Timmermans & Epstein, 2010) and in particular on rankings and ratings in higher education (Sauder & Espeland, 2009). One reason that *efficiency* and *metrics and evaluation* become more central in this field is likely because these issues are central to meeting university administrators' needs to see quantifiable performance and to institute cost-savings projects, whereas supporters of sustainability as *nature* or as part of *the environmental movement* found it harder to get organizations to adopt these priorities. Thus, the discourse reflected a trend towards rationalization in this field, perhaps as a means to accommodate administrative demands for measurement and quantification. However, our analyses reveal two caveats to this trend towards rationalization. The first is the aforementioned finding that activists resisted the focus on *efficiency* and *metrics and evaluation* and the second is that we found evidence that some actors who were agitating for change were often employing this language strategically.

Social movement activists, by definition, are agitators, or disruptors of the status quo (Piven & Cloward, 1979). In our case, activists resisted the dominant issues and did not did not appear to exhibit co-optation, one of the central theoretical concerns of the professionalization and rationalization of movement-oriented fields. In our study it is difficult to tell if activists purposefully positioned themselves as discursive outliers due to their oppositional stance or if they were outsiders primarily because the field moved away from their central concerns. This is an important question that could be investigated further by comparing the discursive trajectory of this field to other fields where activists are essential to the formation of the field and remain engaged in the ongoing discourse**.** However, in this field, the activist outliers likely produced what is termed a radical flank effect (Haines, 1984). By remaining on the fringe, the ideas of more discursively coherent actors, who were still advocating for change, such as many students

and non-profit workers on the forum, would have seemed more reasonable (less "radical') to university administrators.

The second caveat on the trend towards rationalization is that actors were not passively swept away by these shifts but were often employing this discourse in a strategic manner. This is most clearly visible in our evidence of the intentional employment of *efficiency* to appeal to front-stage audiences. For example, when a Columbia University student wanted to put together "a very business-minded proposal" because it seemed to her that "economics are the bottom line here," she sought to intentionally frame sustainability in the language of efficiency to the administration at her university. This anecdote illustrates that actors seeking to legitimate a new field are cognizant of the differences between how issues are discussed in the back-stage versus how they are evaluated by front-stage audiences. In order for framing to be effective it should resonate with the beliefs, priorities and ideas of its target audience (Benford & Snow, 2000; Hardy, Palmer, & Phillips, 2000; King, 2007; Klandermans, 1984; McAdam, 1986). Being a "socially skilled" actor relies on convincing others to collaborate through perspective-taking, establishing shared identities and employing shared cultural frames that motivate others (Fligstein, 2001). Our evidence of these strategic attempts to sell sustainability to administration and other external audiences contributed in part to the rise of discourse that reflected rationalization in the field, and we would expect to find similar trends in other fields that sit at the intersection of movements and organizations.

Future work and conclusion

While our approach goes beyond many empirical cases of field evolution, it also has limitations and provides opportunities for future research. We recognize that there are additional factors beyond discourse that should be considered when studying nascent fields, such as

changes in practices, standards, actor composition and events. In fact, many of these indicators have been examined in previous studies of field evolution (Armstrong, 2002; Hoffman, 1999; Lounsbury, 2001). We focus on discourse in large part because previous theoretical work has stressed the importance of shared understanding as an indicator of field formation, while to date there have been few empirical studies that have attempted to measure changes in shared understanding. However, future work could integrate discursive indicators with other factors, for example by examining whether or not shared understanding that is constructed behind-the-scenes precedes, develops in parallel with, or lags behind other indicators of field emergence and settlement.

Our findings also highlight the importance of the continued use of qualitative methods for analyzing text. In this case, a purely quantitative approach would have only showed an increase in discursive *coherence* over time, which could be mis-interpreted as *agreement* and miss the important underlying contestation that continued in the field. Future studies should continue to integrate multiple methods to examine the full picture of changing discourse over time.

In conclusion, our data and methodological approach have enabled us to pull back the curtain on the construction of shared understanding in a nascent field. Our findings contribute to an understanding of the process of field emergence by assessing discursive coherence and discursive agreement amongst a wide array of actors over time to trace the changing discourse in the field of sustainability in higher education. We find that the issues in this field have been contested by various groups but reach relative discursive coherence over time. However, we also uncover some important caveats. The process of discursive coherence did not progress at the same time and to the same degree for all of the groups, and some groups in particular remained outliers while others coalesced around the same set of issues more quickly. Additionally, even

when the discourse in the field reaches relative coherence, we find an increased disagreement around the most coherent issues, indicating that fields can exhibit a stable order while allowing for ongoing contestation.

Chapter 2: We're not like those crazy hippies: Jurisdictional censoring and concealing in the construction of sustainability management

Organizations are under increasing pressure to address a wide array of social problems that were not always considered within their remit – ranging from addressing gender and racial inequality and sexual harassment to fighting climate change and setting the ethical rules surrounding technological development (Ferraro, Etzion, & Gehman, 2015; Grodal & O'Mahony, 2017; Margolis & Walsh, 2003). Despite the fact that addressing these societal challenges are often ancillary to, and sometimes contradictory to, most organizations' primary goals and functions, under mounting pressure from outside groups, such as social movements, many organizations have created new roles to manage these expanding areas of work. These roles, which sit at the intersection of movements and organizations, include such positions as affirmative action officers (Edelman et al., 1991), diversity officers (Dobbin et al., 2007), recycling managers (Lounsbury, 1998), and corporate social responsibility managers (Risi & Wickert, 2017). Although there are many examples of these occupations, studies of the practices that are carried out by these occupational groups show that they often fall short of what movements had envisioned, most notably in the field of diversity management where they often struggle to eliminate, or even reduce, inequality in organizations (Edelman, 1992; Edelman, Krieger, Eliason, Albiston, & Mellema, 2011; Edelman et al., 1991; Kalev et al., 2006). Despite our recognition that these occupational groups often fail to remedy the social problems they were created to address, to date we have a limited understanding of how they come to carry out certain tasks and not others. This issue, which is especially pertinent to new occupational groups that are created out of social movement pressure, reflects a more general question that remains poorly

understood in management research – what is the process by which agreement around a common set of tasks is achieved for new occupational groups?

This outstanding question is centrally about the process of constructing an occupational group's jurisdictional boundaries, which encompass the set of tasks that is in their domain (Abbott, 1988). The dominant narrative of jurisdictional construction for new occupations is that jurisdictions stem from an occupational mandate, which is the *raison d'etre* that underpins the occupation (Hughes, 1958). Scholarship on occupations has identified an array of sources for occupational mandates (Anteby, Chan, & DiBenigno, 2016), including how mandates are built on regulatory change (Edelman et al., 1991), technological shifts (Elias, 2007; Kahl, King, & Liegel, 2016), jurisdictional conflict (Kellogg, 2014), individuals in existing roles shedding, or "hiving off" tasks (Hughes, 1958; Huising, 2015), and the establishment of paid work that was previously carried out by volunteers (Nelsen & Barley, 1997). Previous scholarship has maintained that after a mandate is established, an occupation's jurisdiction, or the set of tasks that are under their remit, is then established through two steps: 1) first, it is assumed that there is a set of tasks that is naturally associated with the mandate – for example if the mandate is to operate a new machine, then the new role is tasked with that machine's operation; 2) second, the majority of theoretical and empirical attention on jurisdictions has focused on the role of inter-occupational battles over jurisdictions, as individuals in occupations vie with those in other occupational groups for control over tasks, in an attempt to establish, defend, and expand their jurisdictional boundaries (Abbott, 1988). Through an inductive study of how the jurisdiction was constructed for a new occupational group that was established in part to respond to pressure from a social movement, I find that this previously-accepted process of jurisdictional construction does not hold in its entirety. This empirical case of how agreement around a common set of tasks

is achieved for a new occupational group expands and challenges existing assumptions of jurisdictional construction.

In the following, I conduct a field-level analysis of the founding and evolution of sustainability managers in higher education, asking the question of how their jurisdictional boundaries were established. This setting provides a revelatory case (Ragin & Becker, 1992; Yin, 1994), as colleges and universities were some of the primary sites where sustainability management positions were first established and these early occupational group members were therefore instrumental in defining the work of sustainability managers. My field research approach comprises observations, archival data, and interviews; I focus on the action within my case to build theory of how jurisdictional boundaries are constructed, paying close attention to *how* decisions are made to include and exclude certain tasks from their work, as well as the content of *what* gets removed or incorporated.

By tracing these processes, I first find that sustainability managers' jurisdiction does not flow smoothly from a mandate, but instead requires a process of negotiation to translate the tension within their mandate into a jurisdiction. In turn I find that much of the process of constructing a jurisdiction in this case occurred amongst the nascent occupational group members themselves, which highlights the importance of *intra-occupational* negotiation over jurisdiction, a previously under-studied aspect of jurisdictional construction. By focusing on this intra-occupational negotiation, I identify the processes by which certain parts of sustainability managers' mandate get incorporated into their jurisdiction and importantly why and how others are excluded from it. In doing so, I identify a process that I term *jurisdictional censoring* that highlights the mechanisms beyond inter-occupational battles by which task areas are included or excluded from an occupational group's jurisdiction. Additionally, I find that the sustainability

managers continue to work behind the scenes on some areas that do not end up in their formal jurisdiction but are aligned with their mandate. I identify the underlying aspects of this process, which I term *jurisdictional concealing*, and discuss where and when we might expect to find it taking place in other contexts. Taken together, the findings in this paper expand and challenge our understanding of the processes by which new occupational groups construct and navigate jurisdictions.

OCCUPATIONAL MANDATES AND JURISDICTIONS

Much of the prior work on occupations and professions has been a skill-based perspective, focusing on how prototypical professions, such as physicians, lawyers, and accountants establish themselves and expand their jurisdiction through specialized training, abstract knowledge, and qualifications (Abbott, 1988; Freidson, 1970; Larson, 1977). This scholarly attention has resulted in a wealth of knowledge, but primarily about a narrow group of occupations. Recently, work has expanded to consider a wider range of occupational settings and theoretical concerns (Anteby et al., 2016). However, most studies on occupational groups have focused on how *established* groups navigate change, for example when they encounter technological shifts (Barley, 1986; Nelson & Irwin, 2014), changes to regulations or rules (Kellogg 2009, 2011a,b), or peer-driven pressures (Howard-Grenville, Nelson, Earle, Haack, & Young, 2017). While questions of occupational change among established groups are fundamental to understanding occupations, questions of how occupational groups come to form in the first place have not received as much attention. This is despite the fact that, as Nelsen and Barley (1997: 619) aptly wrote, "no question could be more central to the study of work than how new occupations arise and acquire jurisdictions."

In extant studies on the formation of new occupational groups, the two constructs of occupational mandates and jurisdictions have frequently been employed but rarely examined in relation to one another, despite the fact that the relationship between them is likely consequential in determining how jurisdictions come about and how they may map on to or diverge from mandates. Occupational mandates are the primary justification for a role – a mandate provides the legitimacy for a new position to be created (Hughes, 1958; Nelsen & Barley, 1997). A classic example of a mandate is a need for a person with technical expertise that arises due to the introduction of a new technology, for example. Additional scholarship on the formation of mandates has also emphasized how individuals in new occupational groups can shape their mandate – this work highlights how mandates are not simply exogenous to occupational groups but are also influenced by them. For example, Nelsen and Barley (1997) found that early emergency medical technicians (EMTs) worked to change the culture surrounding the provision of emergency response services from primarily a volunteer-staffed service to one in which an emerging occupational group was deserving of remuneration and formalization of their roles. Recently, Fayard et al. (2016) found that service designers constructed a mandate for their occupation by distinguishing themselves from other occupations not only in terms of offering a different skill set, but also in terms of emphasizing that they hold a different set of values. Overall, work on mandates focuses less on what, exactly, an occupational group does, and instead on why a group exists.

In terms of what an occupational group does, or the set of tasks that are under their control, this is termed their jurisdiction. An important part of the scholarship on how jurisdictions are constructed is the idea that occupational groups are in conflict with other occupations and battle with them for control over tasks – as Anteby et al. (2016) summarized,

there is a conception of a "fixed pie of tasks is being divided among various occupations; gains in task jurisdiction by one occupation come at the expense of another occupation." This does not mean that coordination across occupations is not possible, or that it could even be beneficial (Kahl et al., 2016), but the way that jurisdictions are seen as constructed for new occupational groups is that they first build on tasks that are aligned with the occupational mandate and they are subsequently shaped primarily, if not exclusively, by inter-occupational jockeying in attempts to establish, defend, and expand the jurisdiction (Abbott, 1988).

Despite the theoretical centrality of mandates and jurisdictions in studies of occupational formation, these two important concepts have rarely been examined in relation to one another. Previous work has rested on an assumption that mandates flow readily into jurisdictions, rather than questioning the nature of this translation. It has also been a commonly-held view that new occupational groups mainly focus their efforts on shaping their mandate, which will then set the direction for the jurisdiction. For example, when Nelson and Barley (1984) focused on the creation of the mandate in their case of EMTs they stated that they did so in large part because mandates are essential for gaining the institutional resources that then enable occupational groups to compete in jurisdictional battles. Similarly, although Fayard et al. (2016: 2) recognized that "gaining an occupational mandate," and "legitimizing and solidifying an occupational jurisdiction" are two different "stages" of occupational emergence, their study focused exclusively on how service designers constructed their mandate, and they described the jurisdiction as largely flowing logically from the mandate. As the authors wrote, "once a mandate is established, practitioners' sense of solidarity and identity gives them moral authority to claim that their ways of conduct and thinking related to the work are appropriate and relevant (Fayard et al., 2016: 2)." Furthermore, they write that with the mandate, the "values infuse what

is defined as 'proper conduct,' as well as modes of thinking and beliefs (Fayard et al., 2016: 2)."

While a mandate might indeed do these things – provide a sense of solidarity and identity,

legitimate a mode of thinking, and define *how* a new occupational group should act, it does not

mean that it defines *what* an occupational group should do – or the set of tasks that is within their

jurisdiction. Additionally, the scant studies of jurisdictional construction have focused almost

exclusively on jurisdictional battles between occupational groups (Abbott, 1988; Bechky, 2003).

While these studies have been theoretically and empirically rich, they have not engaged closely

with other key sites of interaction that are essential to the process of jurisdictional formation; in

particular they have not thoroughly examined sites of intra-occupational negotiation, or the

interactions between individuals within the nascent occupational group itself, thereby

overlooking potential heterogeneity within occupational groups and the process of intra-

occupational negotiation. In this study, I have identified a case where I am able to trace the

process of the creation of a jurisdiction from a mandate, and I do not find that the jurisdiction is

clearly a corollary of the mandate nor purely a result of inter-occupational battles, which enables

me to empirically and subsequently problematize previously-held assumptions of how

jurisdictions are constructed.

OCCUPATIONAL FORMATION FROM SOCIAL MOVEMENTS

In this paper, I study an occupational group that was created in large part out of social

movement pressure. Social movements are organized groups of individuals working in part

outside of institutional systems with goals to change existing practices that contribute to wider

societal concerns (McAdam & Snow, 1997). Movements are one of the primary sources of

change in society, and organizations are the primary sites of contemporary life. If the concerns of

movements, which include inequality, fair treatment, ethics, and environmental impacts, become managed inside organizations, then it is pertinent to understand the process of translating social and environmental concerns from movements to the task areas that are carried out by occupations that are designed to address movement-initiated areas of work.

Previous scholarship has rarely considered what we can learn about occupational formation from these cases, even though there are numerous examples of how movements have played a fundamental role in establishing the impetus for new occupational groups (Dobbin, 2009; Edelman et al., 1991; Lounsbury, 1998; Risi & Wickert, 2017) and new positions are increasingly being created in the face of growing pressure on organizations to address a wider range of societal challenges (Ferraro et al., 2015; Grodal & O'Mahony, 2017; Margolis & Walsh, 2003). The scant work that has explored occupations that have been largely established due to a mandate from a movement, such as diversity managers and affirmative action officers, has found that many of the practices that have been put into place by these occupations have failed to solve the problems they were established to address (Kalev et al., 2006). For example, Edelman (1992, 2016) and colleagues (2011; 1991) have found that the work carried out by affirmative action officers and diversity officers often does not translate into substantive changes. Although we know that these types of occupational groups often fall short of what movements had envisioned, a key outstanding question is how their jurisdiction is established – or how it is decided that they will work to carry out task "A" and not "B." For example, in Dobbin's (2009) work on the establishment of personnel managers, whose roles were established in large part based on regulatory change that came from the demands of the civil rights movement, he conceptualizes the transition between the social movement mandate and the occupational group's work as a

brief handoff; he writes that personnel managers had "taken the baton and were running the next leg of the relay on their own Dobbin (2009:3)." Describing this transition as a momentary handoff ignores the processes that underpin the translation from what movements envision to what movement-mandated occupational groups actually do. And, as previously mentioned, the scholarship on occupations more generally does not provide a clear explanation of the relationship between mandates and jurisdictions that could shed light on this case where we know that there is often divergence between the two.

RESEARCH SETTING: SUSTAINABILITY IN HIGHER EDUCATION

In the late 1990s, college and university students in North America worked alongside non-profit organizations in what they termed the "campus sustainability movement" to advocate for higher education organizations to institutionalize an array of new social, environmental, and economic practices (Eagan & Orr, 1992; Lounsbury, 1998).[18] The campus sustainability movement went beyond the historical concerns of environmentalism, incorporating "issues of race, class and injustice with the [environmental] movement's traditional goals of preservation and conservation"[19] and advocating for a broad set of practices that included 1) environmental concerns, 2) social justice issues, and 3) economic equality (Brundtland, 1987; Scoones, 2007). A 1999 handbook from the movement illustrates the wide range of issues that they were mobilizing around - including animal rights, environmental racism, recycling, indigenous rights,

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[18] "UCLA Identifies a Major Source of Pollution: Itself," *LA Times*, 1989
[19] "Student Group Seeks to Broaden Goals of Environmental Movement," *The New York Times.* October 7, 1991.

global warming, health care, white privilege, class domination, safe working environments, oppression, establishing a living wage, unionization, and wilderness protection.[20]

The movement's efforts ultimately resulted in the creation of new positions in colleges and universities to manage sustainability. In 2004, the first sustainability coordinators were hired by Dartmouth and Oregon State University. The following year, in 2005, the Massachusetts Institute of Technology hired a sustainability director, Yale University hired a director for an office of sustainability, and numerous schools soon followed.[21] The occupational group of sustainability managers in higher education grew substantially over the next decade. By 2016, there were an estimated 2,000 sustainability professionals in higher education in the U.S. and Canada.[22] This growth was marked by major milestones, including the 2005 creation of a professional association, called the Association for the Advancement of Sustainability in Higher Education (AASHE). AASHE would become the central organizing body for the nascent occupational group, hosting online conversations and annual conferences and facilitating the creation of a standardized assessment tool called the Sustainability Tracking, Assessment and Rating System (STARS). AASHE's STARS tool guided sustainability managers' work and ultimately became *the standard* for practicing and assessing sustainability in higher education – the tasks that are encompassed in it represent the occupational group's jurisdiction. STARS data is fed into green school rankings published by *The Princeton Review* and *The Sierra Club*. By 2016, STARS was being used by over 700 colleges and universities. In the following, I analyze

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[20] Student Environmental Action Coalition Organizing Guide, 1999
[21] AASHE Website, accessed November 8, 2016 *The Internet Archive*
[22] AASHE 2016 Conference Attendees

multiple sources of field-level data that enable me to trace the process by which the occupational

group of sustainability manager's jurisdiction was constructed and navigated over this period.

DATA AND METHODS

While an important element of occupational construction is negotiated within

organizations, where individuals in new roles craft identities, carve out jurisdictions, and

structure tasks on-the-ground (Bechky, 2003, 2011; Huising, 2015; Kellogg, 2014; Nelsen &

Barley, 1997), there are also essential processes of occupational formation that occur at the field

level (Fayard et al., 2016; Kahl et al., 2016), whereby individuals from within the occupational

group interact with one another. Field-level approaches have been shown to be an invaluable lens

for studying evolution and change within occupational groups such as service designers (Fayard

et al., 2016), chemists (Howard-Grenville et al., 2017), and production planners (Kahl et al.,

2016). As described in the following, I adopt a field-level approach that combines data from

observations, archives, and interviews. Table 2.1 outlines each data source and describes how

each one contributes to the analyses and findings.

------------------------------Insert Table 2.1 about here------------------------------

Observations

I first sought an understanding of the tasks that sustainability managers carried out in

their day-to-day work, so in 2015 I started my data collection through participant observation

(Emerson, Fretz, & Shaw, 2011) with a sustainability manager at a private university in the U.S..

In total, I spent fifty hours in the field over four months, and after each interaction, which lasted

from two to six hours, I recorded field notes, which eventually totaled 105 single-spaced pages.

Observations included participating in a waste audit, attending faculty meetings to discuss

integrating sustainability into the curriculum, observing trainings with student "eco-reps" who

encourage their peers to adopt sustainable living habits, and witnessing discussions of how to

add sustainability requirements to a contract for a new food supplier. Each week I also wrote

memos to begin the iterative process of understanding and analyzing the observations while

continuing to gather data (Emerson, 2001; Emerson et al., 2011). In addition to this participant

observation, in 2016 I attended the annual AASHE conference, the largest conference for

sustainability managers in higher education.

Based on my participant observation and in concert with revisiting the literature on

occupational formation, I began to question how it was that sustainability managers focused on

the task areas that they did in their work. In particular, there were some issues that seemed, from

an outside perspective, to be "sustainability issues," that they were not engaged in formally, and

other issues that seemed to be less aligned with sustainability that they were actively focused on

in their work. I therefore decided to investigate this question in-depth, so I then gathered

interview and archival data to help me understand the process by which this group's jurisdiction

was constructed.

Interviews

Between 2015 and 2017 I conducted 29 semi-structured interviews with sustainability

managers working in higher education in North America, in order to understand the history of

their roles and task areas.[23] I recruited participants through a purposeful sampling strategy

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[23] In order to collect these data, I developed a research partnership with the professional association AASHE, which enabled me to use their name in approaching potential interviewees.

(Strauss & Corbin, 1998) to comprise a diverse group of colleges and universities that varied based on geography, student body size, and school type (e.g. private, public, religious, Ivy League, etc.).[24] The interviewee characteristics are shown in Table 2.2. On average, the individuals had been working in campus sustainability for eight years. Before becoming sustainability managers, interviewees came from a diverse range of positions, having previously worked in non-profit organizations, international development, local government, law, architecture, as well as other departments in higher education such as procurement and student affairs. None of the individuals whom I interviewed were deeply involved in the campus sustainability movement prior to becoming sustainability managers.

-----------------------------Insert Table 2.2 about here-----------------------------

The interviews lasted an average of one hour each and were semi-structured, enabling me to capture consistent information across participants but also encouraging interviewees to share information beyond the protocol. The final protocol was focused on five areas: 1) participant's background; 2) individual and occupational identity; 3) history of the position and occupational group (including their perceptions of the origins of their mandate); 4) organizational structure and task areas; and 5) efforts and strategies for change. When I asked participants about their work and why they engaged in certain task areas and not others, they frequently brought up how the Sustainability Tracking, Assessment and Rating System (STARS) guided their work. Interviewees told me that they followed the tasks outlined in STARS, that their committees were structured according to the areas in STARS, and that they set goals by first consulting STARS.

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[24] I received a 69% response rate and all the interviews were recorded and transcribed except one in which the participant preferred to not be recorded. Two-thirds of the interviewees were women and one-third were men, which aligns with the gender identity of survey respondents in AASHE's biannual occupational group survey.

STARS had also been an important resource in my participant observation setting. Through these accounts, I recognized the disciplining nature of STARS in defining the jurisdictional boundaries for sustainability managers and therefore I set out to collect additional archival data that would enable me to trace how STARS was created, including the process by which decisions were made about what would be in and out of this group's jurisdiction.

Archival data

Based on my interviewees' accounts of the role of STARS in reflecting and shaping their work, I gathered archival documents on the creation of STARS, as outlined in Table 2.1. Importantly, I was able to retrieve previous versions of documents and websites through the *Internet Archive*, which is a large-scale non-profit digital library that has captured websites and their contents over time. Like all archives, digital and physical, the *Internet Archive* is not comprehensive, but it is an essential tool for accessing documents during my period of interest, as websites facilitated the development of STARS but have been dismantled or updated over time. The creation of STARS began in 2006 and the first full version of the tool was released in 2009. Figure 2.1 shows a timeline of the development of STARS. Between 2006 and 2009, there were three drafts of STARS, with two periods for comment. Every time a draft of STARS was written, there was a round of review whereby hundreds of individuals from the fledgling occupational group gave anonymous feedback on the proposed task areas that would be in their jurisdiction – they negotiated over 122 proposed indicators in STARS to determine what should be added, what should be eliminated, and what should be changed. Then, a committee of occupational group members and AASHE representatives took the reviewers' comments into consideration, made changes to the draft, and released an updated version for comment, until

they finally settled on an operational version in 2009. I collected all of the versions of STARS as

well as the full archive of 1,347 comments from occupational group members on the drafts.

----------------------------------Insert Figure 2.1 about here----------------------------------

Analyses

I began my analyses by reconstructing the historical trajectory of the establishment and

evolution of the occupational group of sustainability managers in higher education through the

archival documents, following the tenets of organizational archival research as outlined by

Ventresca and Mohr (2002). I first read all of the archival documents in chronological order to

understand the full temporal arc of how the occupational group was established and how the

jurisdiction was defined over time. In reading the documents in full, I paid particular attention to

actors, settings, and contestation in the text.

After understanding this historical trajectory, I went back to the archival documents that

would enable me to trace the development of the occupational group's jurisdiction through the

multiple iterations and comments on STARS. I first coded all of the 1,347 occupational group

reviewers' comments, to classify each one as to 1) whether it suggested adding, eliminating, or

changing a task area in STARS; 2) if so, which task area did it address; and 3) what was the

justification given for making the change? Then, I applied a second round of coding to the

justifications, classifying them into the various ways by which the occupational group members

argued for drawing jurisdictional boundaries of what should be "in" and what should be "out."

After coding the comments, I went back to the three drafts of STARS to trace the *result* of the

occupational group members' comments, coding each proposed task area in STARS for whether

it 1) was eliminated, 2) remained relatively unchanged, 3) was strengthened, or 4) was weakened over the review process.

In concert with analyzing the archival documents, I also analyzed my field notes and interviews. I employed an inductive, code-building approach to my field notes and transcribed interviews that followed the tenets of iterative coding from grounded theory (Glaser & Strauss, 2009). In the first stage I utilized the technique of in vivo coding, which captures phrases verbatim (Miles, Huberman, & Saldana, 2013). Through this first-stage analysis, I recognized that the interviews and field notes could speak best to two issues – 1) sustainability manager's understanding of their mandate and 2) how sustainability managers navigated their jurisdictional boundaries, especially when they confronted task areas that aligned with their perception of their mandate but were outside of their formal jurisdiction. I therefore focused the subsequent stage of my analysis, in which I applied descriptive codes to the first-stage coding, primarily on these two areas. I describe my findings in the following section.

FINDINGS: JURISDICTIONAL CENSORING AND CONCEALING

The observations, interviews, and archival analyses reveal that the sustainability managers themselves were integral to the process of defining the boundaries of their jurisdiction. In doing so, they progressed through a multi-stage process, which included three steps: 1) interpreting the mandate; 2) establishing jurisdictional boundaries; and 3) navigating conflict between mandate and jurisdiction. I focus the majority of my analyses on the second and third stages, as this is where the activities and processes unfolded to confront their mandate and construct their jurisdiction. In these stages, the sustainability managers engaged in two central processes which have not been recognized in previous work – *jurisdictional censoring* and

jurisdictional concealing. In the following I describe each stage and the underlying processes and activities that comprise them.

Interpreting the mandate

I first questioned how the individuals working in sustainability management understood their mandate. In seeking a local understanding of this situation, in my interviews I asked sustainability managers questions regarding how and why their roles were established – what was the purpose for having sustainability managers? While my interviews took place after the foundational years of the occupational group, the majority of the individuals whom I interviewed started in their positions between 2006 and 2009, when the occupational group was being founded. Therefore, in analyzing the interview data related to this question, I paid particular attention to individuals who entered their roles during the founding period.

In discussing how they interpreted their mandate, the sustainability managers recounted the justifications that were put forth for the creation of their positions. Across the majority of the interviews, the sustainability managers attributed their mandate to the work of student mobilization and social movements who advocated that higher education organizations should expand their "responsibility" to new areas under the umbrella of sustainability and hire individuals to oversee this new area of work. For example, two women who were the first to hold their newly-created positions said that "the students had been calling for a sustainability person for a while" (1009) and "the students had been advocating for it" (1011). Another told me, "So before I came there was a student group called ECOS. I have been made to understand that ECOS actually advocated for an Office of Sustainability [here]" (1001).

One of the earliest field members I interviewed had worked at an Ivey League school for almost two decades. When she was hired, she first worked in environmental compliance, but her role expanded over time as she became the first Director of Campus Sustainability. While the compliance office still existed at her school, her career had progressed from working on environmental issues solely through compliance to the expansion into voluntary efforts through the lens of sustainability. She vividly recalled that the origin of this expansion was student pressure, stating:

> Around the Kyoto Protocol, when it was being discussed at the international forum, there were students on campus who formed a student activist group called Kyoto Now…They convinced the administration to be the first private entity to independently commit to the Kyoto Protocol. So it took off from there…through that we created our first professional sustainability position here (1018).

Many of the sustainability managers also talked more broadly about how their occupational *group* was created (not just their individual roles), reconstructing narratives from across organizations that reflected a shared understanding of their mandate. In these cases, they also overwhelmingly attributed the campus sustainability movement with establishing their mandate. For example, an interviewee who was one of the first individuals with a formal sustainability manager position in higher education in the U.S., and who had also been involved in establishing AASHE and creating STARS, said that "the environmental movement was definitely foundational in terms of motivating and designing the early higher education moves into sustainability" (1003). Another concurred, saying that their positions came about due to efforts from "a grassroots movement, probably around the 90's" (1007). A third, whose role was established towards the end

of the first push to create new positions, told me a similar story, saying that, "There was a big movement to create these positions on campuses" (1012).

Through both understanding individual organizational histories and shared narratives around the origins of their occupational group, sustainability managers interpreted that their mandates were largely constructed out of pressure from a movement to engage in sustainability. And they recounted this interpretation even years after the occupational group was founded, when a connection to the movement might have been forgotten and replaced by professionalization pursuits. Based on our existing theoretical understandings of how jurisdictions flow naturally from mandates, we would then expect that in this case a jurisdiction that matched the movement mandate would have followed, or at least would have been pursued through inter-occupational conflict. As I describe in the following, however, the process of jurisdictional construction in this case resulted in a jurisdiction that diverged in part from the movement mandate and was also significantly shaped by intra-occupational negotiation.

Establishing jurisdictional boundaries

One of the most substantial coordinated efforts the new occupational group of sustainability managers in higher education engaged in was negotiating the boundaries of their jurisdiction. When I interviewed some of the first sustainability managers in the U.S., they told me that at first their jurisdiction, or the set of tasks that were in their purview, was unclear. They stated, for example, "I didn't know shit really...There wasn't anything to know, there weren't any books to read; we were making this up as we went along" (1003). This interviewee continued, explaining how individuals in these new positions quickly began to coordinate, saying, "There were five people in the country I think - literally five people were working at universities in the

United States when I started. And so I quickly found out who they were and we started having phone calls" (1003). Another woman recalled the initial steps she took as the first sustainability manager in higher education in her Midwestern state. In early 2005, she organized a regional network of people across four states. She said, "We figured we might as well learn from each other" (1011). Another woman who was hired as one of the first sustainability managers in California in 2005 told me about how she relied on others in similar positions. She said, "When I started, no one knew what they were doing. I felt like I was on the phone all the time…asking for advice and support" (1013).

When their jurisdiction was unclear, they turned to one another. This coordination soon led to the creation of a professional association, AASHE, in 2005. And one of first projects that the sustainability managers began to organize through AASHE was the creation of STARS, to define a shared understanding of their work. AASHE's archival documents show that the early sustainability managers aimed for STARS to "become the 'standard' for how sustainability would be practiced in the higher education community."[25] The central purpose was to define the group's occupational jurisdiction through a bounded set of tasks that would be in their purview.

In the first version of STARS, which was compiled by a committee of early sustainability managers, the list of tasks that they included closely matched the broad and substantive mandate from the campus sustainability movement – covering social, economic, and environmental concerns. So there does seem to be evidence that at first, the mandate was largely mapped on to the first iteration of the jurisdiction. Documents show that at first the boundary around what should be included in their work was wide and inclusive, stating that STARS should cover "all

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[25] Ibid

the dimensions of sustainability (health, social, economic and ecological) and all the sectors and functions of campus."[26] The first draft of STARS reflected this goal, including task areas such as same-sex partner benefits, faculty racial and gender diversity, pay equity, and endowment transparency; it mirrored the concerns of the movement that spurred the creation of their roles. However, over the various iterations and comment periods in the process of creating STARS, I find that these particular issues and many others were eliminated through two activities: 1) trading Politics for politics and 2) trading values for standards. As described in the following, through these activities, the group engaged in the process of *jurisdictional censoring*, which distanced their jurisdiction from their original mandate.

  Trading Politics for politics. In the sustainability managers' multi-year negotiation of their jurisdiction through STARS, they engaged in *trading Politics for politics*. Trading Politics for politics means that early occupational group members eliminated certain task areas that they labelled as "too political," arguing that if they engaged in them they would be viewed by others as partisan, or aligned with a particular political ideology – Politics with a capital "P". At the same time, they raised worries about *local* politics on their campuses and expressed concern that certain task areas would upset those who held power locally – emphasizing that they should focus their efforts on politics with a lowercase "p". While the movement for campus sustainability had embraced Politics, the occupational group traded Politics for politics.

  In the comments on the first draft of STARS, one early sustainability manager raised concerns with proposed areas of work being seen as too "Political," and suggested that the next version of STARS should include "a paragraph about how these criteria match efforts in the

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[26] Ibid

business sector to be more sustainable in policies and practices. This will help move it away

from the conservative/liberal problem" (0.4 Reviewer 22). Another expressed similar concerns,

stating, "I have reservations because of what I see as a definite political emphasis in the draft"

(0.4 Reviewer 33). Other sustainability managers who commented on early drafts of STARS

described their worries about their work being viewed as too Political:

> It was my understanding that this was to be a technical document. It is not; rather it is a political document and there are way too many controversial positions taken in the document that will lose support for sustainability rather than garner support. If this document is supposed to be a political document, then I misunderstood its purpose and I would submit my resignation from the Technical Advisory Committee because I am not interested in pursuing the political aspects of sustainability (0.4 Reviewer 17).

This individual continued, emphasizing that, "Many of the issues, especially the social

issues, in this version of STARS will cause divisiveness and cause way too many people to

classify persons pushing sustainability as 'do-gooders,' 'tree huggers,' or some other derogatory

term" (0.4 Reviewer 17). Through this process, many sustainability managers argued that task

areas related to social justice areas should be removed. For example, another individual

commented on their perception that social justice-related task areas are too Political, stating:

> There is over-emphasis on social responsibility & community engagement, which seems to reflect an underlying political agenda...While I do understand and appreciate that environmental stewardship is one aspect of the broadest definition of sustainability, I still think that the STARS survey is too heavily weighted to the social justice elements (0.4 Reviewer 39).

Another early sustainability manager echoed this concern by saying that that the inclusion

of social justice issues made it look "like there's an 'agenda' that is being pushed" (0.4 Reviewer

31). In arguing for eliminating a task area surrounding same-sex domestic partner benefits, one

of the few social justice issues that remained in STARS after the first revision period, one

sustainability manager commented: "If I were to share this credit with our campus community, it

would likely be split down anticipated lines. My question to you is this: Is this a sustainability-

related area, or is it opportunistic?" (STARS Pilot Results). This individual was warning that the

inclusion of domestic partner benefits would divide the campus along Political, or partisan, lines,

and it should therefore be removed from their jurisdiction, which it subsequently was.

In trading Politics for politics, early sustainability managers instead embraced the

concerns of *local* politics, commenting, for example:

> I am concerned that community colleges, a huge sector where we haven't seen a lot of growth in sustainability, may be reluctant to participate because they are more tied politically to their local community than University campuses and thus might be reluctant to take on the political aspects of the draft. I would hate to have them turned off to STARS by the inclusion of political requirements that they or their community may not support (0.4 Reviewer 33).

This individual justified excluding indictors that might be seen as too partisan, or

Political, because they were worried about local politics. Another sustainability manager, who

commented specifically on indicators of college affordability and social mobility in the first draft

of STARS, raised a similar concern about local politics, saying that, "This area may 'stretch' the

definition of sustainability beyond the point where trustees may be prepared to accept it" (0.4

Reviewer 14). When this same individual reviewed the Operations section, they continued to

emphasize that they were anticipating how individuals in their local political arena would view

certain tasks, in this case writing that, "The variables and indicators subsumed by this area are

appropriate and reasonable considerations for boards and institutions" (0.4 Reviewer 14).

Overall, the comments on STARS show that the sustainability managers did not drop politics altogether as they negotiated their jurisdictional boundaries. However, they placed local politics, or their anticipated concerns of local communities, trustees, and boards as central stage. At the same time, they labelled much of the arena of social justice-related work as "too Political," voicing concerns that they would be seen as "pushing an agenda". They raised warnings about how they would be viewed by others and said that if they did not drop these Politicized task areas, those who held power locally would view those "pushing" sustainability as "do-gooders" and "tree-huggers."

Trading values for standards. The second activity in the construction of jurisdictional boundaries in this case was that of *trading values for standards*. In commenting on STARS, sustainability managers emphasized that their work should exclude tasks that only stood up to a values-based evaluation, while they should attempt to construct their jurisdiction around tasks that would stand up to a standards-based evaluation. Again, this represents a distancing from the mandate that the movement had established for their roles, which was inextricably connected to enacting a set of values such as equality, diversity, and respect for the environment. As I found with trading Politics for politics, the arguments and justifications that were given in trading values for standards also reflected a process of self-censoring.

In raising concerns with task areas that could be seen as values-driven, one sustainability manager argued that an area that included tasks related to working to improve social mobility through college admissions should be cut from STARS because it had "all sorts of values imbued in a question like that" (0.4 Reviewer 39). The individual continued:

I just wanted to give you my general reaction, because if I react in this way (and I'm very much oriented towards sustainability in all aspects), then it's an indicator you could get more negative responses from others and a disinclination to participate. There are too many social questions, many of them very vague and probably not particularly measurable.

Another said that the wording of some task areas sounded "too value laden" (0.4 Reviewer 22). A third sustainability manager vividly expressed trading values for standards, providing the following feedback on the "Social Responsibility and Community Engagement" section (which reflects "social justice" concerns) in the first draft of STARS:

I think these are important issues. However, I disagree that these are sustainability issues that should be rated. I don't see a single criterion I would include in STARS…On my campus, our sustainability efforts have focused on collecting statistical data that are factual. Once that data is collected, we can have sound data to develop campus policies around which consensus can be obtained so that sustainability is something that the entire campus community can support (0.4 Reviewer 17).

Others honed in on concerns of measurability and commensuration. For example, many raised these criticisms in relation to indicators that were designed to promote the inclusion of "underrepresented groups," which were in the early drafts under the diversity task area. In particular, they questioned whether or not there were "clear standards on what this means," and stated that the tasks that were associated with this term were "too vague," and that they could not be used for "quantitative analysis" (0.4 Reviewer 30). One reviewer labelled diversity "a highly problematic measure" (0.4 Reviewer 35) while another called it "a computational swamp" (Survey 0.4 Reviewer C). Another described their concerns around being standards-driven by writing:

There is no objective rubric against which to judge the potential impact of the actions recognized by the 'Community Relations and Partnerships', 'Diversity, Access, and Affordability', and 'Human Relations' Sections… they are not comparable on a level playing field – they're apples and oranges (0.5, Reviewer 2).

As this evidence shows, sustainability managers called for the elimination of task areas that were perceived to be justified more by values than standards. Again, as with the previous activity, the sustainability managers raised concerns about whether or not many task areas that reflected their mandate from the movement would be supported by other audiences. They voiced these concerns by describing worries that there would be a "disinclination to participate" while arguing that their aim should be to reach "consensus" in their organizations. Overall, the nascent occupational group members stressed that their work should be limited to areas that could be measurable through statistics and facts, which they framed as neutral.

Jurisdictional censoring. Through my analyses of the changes over time to the task areas within the three drafts of STARS I find that by trading Politics for politics and trading values for standards the sustainability managers eliminated and weakened many issues that were aligned with their mandate. I term this process of distancing elements of their work from their mandate *jurisdictional censoring*. In making the connections between this process and its underlying activities, it is important to note that the evidence does not show that individuals were arguing for restricting their jurisdictional boundaries because of run-ins with other occupational groups on the ground. Instead, they proposed (and made) changes to their jurisdiction based on their anticipations of the reactions of certain groups to their potential task areas. This is different from our existing understanding of how jurisdictions are carved out predominantly through battles with other groups. While those battles would likely still ensue, *jurisdictional censoring* was the first step in demarcating jurisdictional boundaries in this case, largely preempting and affecting the decision of what tasks this group would even attempt to pursue within their organizations.

To investigate the result of *jurisdictional censoring* in this case, I proceeded to examine what happened to each proposed indicator in the multiple drafts of STARS, tracing the outcome of each task area to see if it was: 1) eliminated, 2) relatively unchanged, 3) strengthened, or 4) weakened. The results of this analysis are shown in the Appendix and summarized in Table 2.3.

----------------------------------Insert Table 2.3 about here----------------------------------

In the first draft of STARS, there were four categories of task areas: 1) Operations 2) Social Responsibility & Community Engagement, 3) Governance & Finance, and 4) Education & Research. In tracing the trajectory of each task area over time I find that the proposed indicators in the Social Responsibility & Community Engagement category (which largely represents the social justice issues) were eliminated and weakened more than the proposed indicators in any of the other categories. As shown in Table 2.3, through the revision process, 63% of the proposed Social Responsibility & Community Engagement indicators were eliminated. In comparison, 19% of the proposed indicators were eliminated in Operations, 17% in Governance and Finance, and 26% in Education and Research. As shown in the Appendix, in the Social Responsibility & Community Engagement section, many indicators related to diversity were cut, as were those related to social mobility and those that would have covered domestic partner benefits, healthcare benefits, parental leave and pay equity. These were all issues where concerns of being seen as too Political or values-driven were raised in the sustainability managers' comments on STARS. This analysis shows that jurisdictional censoring resulted in shifting the boundaries of the sustainability managers' work away from elements of the mandate that had been put forward by the movement – in particular the social justice part of sustainability. The sustainability managers constructed a de-Politicized and standards-driven

domain out of concerns that they would be labelled "tree-huggers," or "do-gooders" if they engaged in certain task areas.

There are a few things to note, however, in drawing this conclusion. First of all, there was not consensus amongst the group regarding eliminating so many social justice issues from their jurisdiction, hence why I term it a negotiation. For example, in responding to the second draft of STARS, one sustainability manager lamented the jurisdictional censoring that was occurring, stating:

> It's too bad that the social responsibility piece was subsumed under Administration and Finance...it is again buried under a category that is not obvious. It is the most neglected of the three legs of the stool but will continue to rise in importance as the poor and disadvantaged impacted by resource scarcity and climate disruption (STARS 0.5 Reviewer 25).

In response to other social justice indicators that had been cut, another individual attempted to remind the group of their mandate for what they termed "holistic sustainability":

> The point that I want to make is in regards to the Diversity, Access, and Affordability section. Many of the comments by reviewers seemed to suggest that this section was inappropriate for STARS…The comment that I want to make is a reaffirmation of the general notion of sustainability…Please, do not succumb to the institutional inertia and resistance to achieving holistic sustainability (STARS 0.5 Reviewer 58).

Despite this contestation, however, the majority of the proposed social justice issues were eliminated from STARS over time and there were few sustainability managers who protested this self-censoring within the intra-occupational negotiation process.

To fully attribute the jurisdictional censoring that was occurring to the two activities I have uncovered here, it is also worth examining whether or not the sustainability managers cut certain areas from their jurisdiction because they did not want to take on tasks that were either

already managed by another occupational group or that they viewed as potentially leading to considerable conflict with another occupational group. An obvious consideration in this case is that many of the issues that they eliminated or significantly weakened – such as same-sex partner benefits, healthcare, equal pay, and parental leave – are all aligned in part with the task domain of human resources. In order to investigate whether or not concerns about encroachment were driving the cutting of certain tasks, I coded each of the 1,347 reviewer comments for whether or not they mentioned another occupational group. In doing so, I found that only 70 comments, or about 5% of the comments, discussed another occupational group. Within these, the most frequent groups that were mentioned are: 1) facilities managers; 2) faculty; 3) administration; 4) sustainability committee members; 5) dining staff; and finally 6) human resources. Human resources, the group that seemingly would have the greatest potential jurisdictional conflict over the indicators that were eliminated are only mentioned 6 times in the 1,347 comments. Furthermore, the occupational group that was mentioned the most, facilities managers, are most closely aligned with the STARS category of Operations, which is a category in which the majority of indicators remained relatively unchanged or were strengthened. The final version of STARS had more Operations indicators than indicators in any other category.

In qualitatively examining the mentions of other occupational groups in the STARS comments in more detail, it is clear that when others were mentioned, it was primarily in discussions of how the sustainability managers could influence other groups, ranging from minor suggestions, such as requiring dining services to start composting, to major changes such as integrating sustainability into faculty tenure requirements. This finding shows that although there were likely jurisdictional battles going on between sustainability managers and other

occupational groups on the ground, jurisdictional censoring was a separate and highly consequential process in the construction of jurisdictional boundaries in this case, and it was largely separate from this groups' interactions or concerns with other occupational groups. The sustainability managers were less concerned with how their jurisdiction would conflict with other groups and instead emphasized how the inclusion or exclusion of certain tasks would enable them to influence others and how they would be perceived by key audiences.

Although the identification of jurisdictional censoring, including its underlying activities and the resultant consequences of it in this case, is one of the major contributions of this paper, it is not the whole story. After seeing how the sustainability managers negotiated with one another to remove certain tasks from their jurisdiction, I was particularly interested in understanding if, and if so, how, this new occupational group would navigate tasks that they had eliminated from their formal jurisdiction but were actually still very much aligned with their mandate for sustainability now that their mandate and jurisdiction diverged. I describe the findings from this final stage of navigating conflict between the mandate and jurisdiction in the following.

Navigating conflict between mandate and jurisdiction

In 2009, the intra-occupational negotiation over the drafts of STARS concluded and the first fully-functional version of the standard began to guide the work of sustainability managers. Around the same time, movements began to push for colleges and universities to engage in a new task in the name of sustainability – divesting their financial investments from fossil fuel companies. Across colleges and universities, there were protests, demands for broader representation on investment committees, and signature campaigns in support of divestment from

fossil fuels.[27] Soon, the nascent group of sustainability managers was caught in the middle of this issue. While divesting from fossil fuel companies largely aligned with the mandate for sustainability that had originated with the campus sustainability movement, it was not in the sustainability managers' formal jurisdiction. In fact, through jurisdictional censoring the group had cut three of the seven proposed sections in STARS on funding and investment and weakened one, leaving a significantly watered-down set of tasks related to finance in their jurisdiction. The question is, how did sustainability managers handle this issue that epitomized the conflict between their mandate and their jurisdiction? From theory we would predict that the group would either ignore the issue (as it was outside of their jurisdiction) or that they would work to expand their jurisdiction to incorporate divestment and corral up a new task area that would give them greater influence and power in their organizations (Abbott, 1988). I find, however, that they followed neither of these theorized pathways. Instead, they enacted a process that I term *jurisdictional concealing* – engaging in work outside of their jurisdiction, but aiming to not be seen as working on these areas. This activity was undergirded by three activities: 1) recognizing the limits of their jurisdiction; 2) straddling identities; and 3) engaging in insurgency work. I describe each of these in the following.

Recognizing the limits of their jurisdiction. In my interviews, when I asked sustainability managers about what they did when they encountered an area like divestment, which fell outside of their formal jurisdiction but that many would consider a sustainability-related issue, they told me that even if they thought that these issues should be part of their work they recognized the limits of their jurisdiction. For example, one sustainability manager

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[27] "A New Divestment Focus on Campus: Fossil Fuels," *The New York Times*, September 5, 2013.

recounted the tensions within the occupational group, and how the jurisdiction that they had built

excluded certain parts of what sustainability work might encompass, stating:

> This is also a profession that has people that agree and disagree about the best way to do things, what the goals and the values should be. I think we keep talking about sustainability as this three legged stool. Yet we ignore the social responsibility and that side of our responsibility entirely. We focus on the environmental piece almost to the exclusion of the others (1019).

This individual recognized the cuts to the social and economic task areas in particular.

When I asked another sustainability manager about the biggest challenge he was facing in his

work, he said, "Just the limited scope that I've been tasked with" (1019). In particular, with the

issue of divestment, sustainability managers told me that they worried about being seen as

playing a central role in pushing for divestment, which was an active issue in their organizations

at the time. One told me that they had originally attempted to include divestment in their

sustainability plan, after movements on campus had urged them to address the issue, but that

they were later asked to remove it:

> Our original sustainability plan back in, when we set it up, had some, at least language from comments that came in for that [divestment from fossil fuels] but it wasn't something that my supervisor wanted in there so we basically took it out. I'm like ok. You know I can't, I can't go against this. I'm part of the "administration" so this is an awkward place to be (1011).

Another told me clearly that in her view divestment was not in their jurisdiction, saying,

"We would never lead a campaign for divestment - that's not our place," (1001) while a third

vividly described their constraints, saying, "Many of us can't openly advocate for divestment on

our own campuses" (1003). One individual recalled a conversation they had had with their

supervisor about the role that they should play in the divestment issue. They said, "And my boss

is like, 'We can do stuff behind the scenes, but it can no way shape our— no way can we be seen as the one pushing for this'" (1002). This individual recognized, and were sometimes told directly, that issues like divestment were outside of their jurisdiction, even if they also felt that it fit their mandate for sustainability. One long-established sustainability manager told me:

> Yeah, divestment is a really tough one because basically I've been told by my boss that it's not my sandbox so I have to stay away from it. But it does get awkward. As I'm not a tenured faculty I can't directly say 'no, I'm going to ignore my boss' [chuckles] (1011).

As the sustainability managers recounted the constraints that they felt in addressing divestment, which they categorized as an issue that was not in their "sandbox," or was outside of their jurisdiction, I asked them more about their identity, in particular their identity to the movement that had been largely responsible for the creation of their roles. I was unsure how they would feel, almost a decade after the initial establishment of their occupation, about their connection to their original mandate, and how their identity might be a key part of how they navigated these issues that aligned with their mandate but were outside of their jurisdiction.

Straddling identities. When I asked the sustainability managers about their identity, they expressed that they identified closely with the movement that they credited in large part for establishing their mandate, but they were also adamant about embracing a "professional" identity that they used to carefully and strongly distinguish themselves from prototypical movement actors. In terms of identifying as a member of a movement, one interviewee told me, straightforwardly, "I certainly see myself as being part of a movement. I wouldn't, I wouldn't know how I couldn't be" (1021). This person's tone indicated that she felt that her job was inseparable from the movement. Others emphasized that they sought to live out their commitment to the movement through their work. For example, one woman told me that, "My

passion within the environmental movement is personal…back in Milwaukee my job was super unfulfilling and so I volunteered a lot of my time. And now my passion is fulfilled by my job" (1022).

The sustainability managers also emphasized behaviors and practices that exemplified their movement identity, telling me that they served on local government committees, volunteered, read books by movement leaders, were politically active, took part in marches and followed climate negotiations. One said, "We compost at home, I don't drive to work, I take the train and the bus. I subscribe to environmental newsletters and try to follow what's going on in the media, like the [Keystone] XL pipeline" (1007). Another said, "I was active during one of the first Earth Days" (1014) and a third told me that she attended the 2014 global climate negotiations. The evidence from my interviews indicates that these individuals held on to an identity with the movement that had advocated for the establishment of their occupation and that they personally engaged in practices that aligned with this identity.

However, when I probed them to ask in more detail about their identity I heard a slightly different story. When I asked if they considered themselves "activists," who many would consider to be the prototypical movement actors, the majority preferred not to identify in this way, and they often went on to talk disparagingly about their perceptions of activists. One said, "I guess I hesitate there because I feel like um, that's too…there's a lot of baggage that comes with that" (1004). Another said, "For me I'm more interested in building partnerships to actually implement things than I am in doing protests or different things like that" (1032). One interviewee expanded on her identity, saying:

I consider myself part of the movement for sure, but I don't necessarily consider myself an activist…I guess when I think of an activist I think of someone who works really hard but at the end of the day has a hard time accomplishing anything. They put in a lot of effort but it rarely gets anywhere…I don't want to be standing up there shouting or protesting at people. I want to be like water on a rock, you're quiet, dripping away slowly, you're there but people don't really see you, but you're eventually able to break the rock apart (1013).

When I asked another individual if she felt that she was working more within a movement or a profession, after a few seconds of silence she distinguished herself from prototypical movement members, emphasizing that "We're not like those crazy hippy sustainability people" (1018). In distinguishing themselves from movement members, an additional individual said:

I don't consider myself an activist… and I think to be able to do our job well, actually we should not be activists…what it really comes down to is just we want to be very evidence-based...It's not about saving the world just because we want to save the whales. (1025)

Taken together, these findings paint a picture of an identity that was very much aligned with the activities that had undergirded jurisdictional censoring – they maintained an ongoing identity with the campus sustainability movement, but they wanted to avoid being labelled as activists, who they disparagingly characterized as politically-motivated and values-driven individuals who protested and shouted in the street but did not accomplish much. Instead, they wanted to be seen as professionals, and to pursue their work "like water on a rock…you're there but people don't really see you." These add up to an activity of identity straddling, which I consider to be a key aspect of the process of jurisdictional concealing that they engaged in when facing movement-aligned issues that were outside of their jurisdiction, like divestment.

Engaging in insurgency work. The last activity that comprises jurisdictional concealing is engaging in insurgency work, an action that builds on the previous two activities - first on the

recognition of the limits of their jurisdiction, but also on the embodiment of an identity that straddles the movement that was responsible for establishing their mandate and their "professional" identity that was de-politicized, standards-driven, and "evidence-based." I first saw the activity of engaging in insurgency work in action during my participant observation when I witnessed how the sustainability manager whom I was observing navigated the divestment issue. Early on in my interactions I had asked him about his role in divestment, and he had succinctly told me, "The students can do that. I'm not going to take a stance on that." However, over the coming months I witnessed him arranging the funding to bring the most prominent public figure in the divestment campaign to speak on campus. When I attended the resultant event, I witnessed the charismatic speaker rallying hundreds of people in the crowd while an electrified group of students wearing bright orange "Divest" sweatshirts introduced him and posed for pictures with him after the talk. Anyone in the audience would have assumed that the students on the stage organized the visit. However, sitting quietly in the back row was the sustainability manager, who I knew had orchestrated the event.

After witnessing this sustainability manager conceal his work to catalyze the conversations around divestment in his organization, I asked other sustainability managers how they were navigating the divestment issue. Through my interviews, I found that many individuals were also engaging in similar work. When I asked one sustainability manager – is divestment an issue your organization is considering right now? He said, "Oh yeah…And this is a time where you know, I don't say this to most people, but this is a time where I really shaped the dialogue on the topic" (1017). He went on to specifically term his behind-the-scenes efforts as his "insurgent sustainability work" (1017). Others emphasized how they directed their efforts at students in

particular, who they saw as central to the process of getting their organizations to engage in divestment. For example, one sustainability manager told me the following:

> We have a student sustainability class, and I'm like, "You guys have so much power. You don't even realize the power you have. And so if you start putting that to good use, you can make much more change than I'll ever be able to make if you use that collective power".... So I tell them that. And I say, "Don't tell anyone I said that, but that's the truth" [laughter] (1002).

Another sustainability manager told me, in response to a question of whether or not their students were involved in divestment, "Well they haven't gotten real serious about it yet so I'm gonna challenge the students here" (1003) and the individual who had previously said it was not in their "sandbox" said, "I try to be as supportive as I can around the edges" (1011); they continued, emphasizing that, "I try not to get quoted in the student paper" (1011). Finally, a charismatic individual told me, "I feel like my job is building activists to be active activists…So what I try to talk to the students about is to embrace their power" (1015). He went on to say that with this type of work "the goal is to not be seen" (1015). The sustainability managers described this process as working "around the edges" or "behind the scenes" while confiding in me that they did not want people to know how they had "shaped the dialogue" in their insurgency work.

Jurisdictional concealing. These three activities comprise the process of jurisdictional concealing. First, sustainability managers faced conflicts between their mandate and their jurisdiction and recognized the limits of their formal jurisdiction. Second, they straddled their identity between having an ongoing connection to the movement that had established their mandate while being adamant that they did not want to be equated with them. If they had not maintained a partial identity with the movement, it is likely that they would have ignored the issue of divestment altogether and pursued more of a prototypical professionalization project

through focusing on tasks that they could openly pursue through formal jurisdictional expansion. In this case, however, by recognizing their original mandate and identifying with the movement that established it, they sought to further the work in areas like divestment, but by recognizing the limits of their jurisdiction and also aiming to be seen as professionals, they carried out these tasks through insurgency work behind the scenes.

When I inquired about why sustainability managers concealed some of their work, I learned that they hoped that they would mobilize the movement to put pressure back on to their organizations, which would result in reversing the direction of pressure from what we normally think of as pressure coming *from* movements *to* organizations. For example, a woman who had worked in environmental law prior to her role told me, "If anything I want students to feel like they can push. I mean that's where, that's the only way a university improves and changes and modernizes you know" (1031). Additionally, one of the long-established occupational group members told me:

> They [the students] raise the whole game in terms of visibility of these issues. And they need to flex their muscles more just to show people that they can. Because my experience is that the administration is quite, I won't say fearful but respectful of student advocacy (1003).

Overall, sustainability managers indicated that if they could quietly catalyze the movement that had largely supported their broad mandate, they might be able to have influence without being seen as straying beyond their censored jurisdiction.

DISCUSSION

This case unpacks the process by which a nascent occupational group negotiates the boundaries of their jurisdiction and subsequently navigates work that aligns with their mandate

but is outside of their formal jurisdiction. Previous work has focused on the importance of mandates and jurisdictions in occupational formation (Abbott, 1988; Bechky, 2003; Hughes, 1958), but has not closely examined the relationship between these two concepts, instead often assuming that jurisdictions naturally map onto mandates (Fayard et al., 2016; Nelsen & Barley, 1997). By unpacking this case of a nascent occupational group that was founded out of a mandate to implement "sustainability," I am able to trace how that broad mandate was translated into a formal jurisdiction.

The process that I uncover in the outlining of jurisdictional boundaries in this case, namely jurisdictional censoring, contributes to our understanding of how occupations are established by highlighting the important role of intra-occupational negotiation in defining jurisdictions. In this case, while inter-occupational jockeying may have been going on on-the-ground (and would likely continue at a later stage), at the field level sustainability managers were first contesting which task areas should be included and which should be excluded from their jurisdiction, and they were doing so largely outside of a direct consideration of the task areas of other occupations. This shows how the process of constructing jurisdictions does not occur *exclusively* between occupations, as has been conceptualized to date (Abbott, 1988; Anteby et al., 2016).

Furthermore, through my analysis of how sustainability managers subsequently navigated a key task area – divestment – that aligned with their mandate but not with their formal jurisdiction, I find that they engaged in the process of jurisdictional concealing. The identification of jurisdictional concealing contributes to our understanding of how jurisdictions are constructed and navigated because it indicates that occupational groups are not only

interested in expanding their jurisdiction, in an assumed effort of solely focusing on corralling up tasks (Abbott, 1988), but that there are also cases when they strategically work to intentionally conceal certain elements of their work. I find the process of jurisdictional concealing took place when the mandate and jurisdiction conflicted but also when the sustainability managers held concerns that they would be seen disparagingly if they engaged in certain work, or when the work would violate part of their identity (in this case their "professional" identity, which they were careful to distinguish from an activist identity).

Although this study is of a somewhat unusual occupational group, as the mandate for establishing positions for sustainability managers was created in large part out of demands from a movement, the findings and implications from this case are certainly applicable to a wider range of settings, as I discuss in detail in the following.

Recognizing conflict in mandates

While this case focuses on an occupational group that was created in large part based on movement pressure, movement-mandated occupations are certainly not the only cases in which mandates contain tensions between what the organization envisions for a role versus what other groups – such as customers, regulators, professional associations, or investors – may see as the purpose for a new position. In fact, a great deal of previous work has focused on role conflict between the professions and organizations, and it is worth considering whether or not these audiences would hold competing views of an occupational group's mandate. Additionally, recent work has also highlighted how some occupational groups may also be established with a mandate to be "brokers" between existing occupations, and in these cases they could face conflicting ideas across the two sets of professional norms and expectations (Kellogg, 2014). As

described through these examples, mandates likely often contain tensions and conflicting

expectations for a new occupational group. However, despite a recognition of all of these sources

of potential audiences who may hold conflicting ideas of the purpose of an occupational group,

to date occupational mandates have been largely considered as referential to, or co-constructed,

simply between employees and employers (Fayard et al., 2016; Hughes, 1958; Nelsen & Barley,

1997). The findings in this paper on a mandate that was constructed in large part from a

movement demonstrate why this previous understanding is limited in its ability to recognize the

multiple groups who may play a role in establishing mandates for new occupations.

Translating mandates to jurisdictions

Although working to craft a mandate is one way in which new occupational groups

navigate the tensions and conflicts in their mandate, and it is a means that has been explored in

some detail to date (Fayard et al., 2016; Nelsen & Barley, 1997), I find that translating a mandate

into a jurisdiction is also a key process whereby occupational groups attempt to work through

these tensions and conflicting purposes for their roles, and this process greatly effects what new

occupational groups actually do in their work. While most work to date on occupational

formation has highlighted how jurisdictional boundaries are established through battles with

other occupational groups (Abbott, 1988), and while this is arguably an important part of the

process of jurisdictional construction, previous scholarship has generally overlooked the intra-

occupational processes that are essential for translating mandates to jurisdictions. In my case I

find that intra-occupational negotiation is central to the process of drawing jurisdictional

boundaries for sustainability managers. Again, this finding extends existing theory of how

mandates are translated into jurisdictions, encouraging us to examine the interactions among

members of nascent occupational groups in addition to studies of interactions between occupational groups.

In addition to recognizing the role of intra-occupational negotiation in the process of jurisdictional construction, the findings in this case also expand our consideration of when occupations may actually choose to narrow the boundaries of their work. Unlike existing theories that emphasize efforts at jurisdictional expansion (Abbott, 1988), I find that the sustainability managers do not seek to make broad jurisdictional claims and corral up tasks in an ever-expanding jurisdiction, but rather that they narrowed their work through jurisdictional censoring, due to concerns that certain areas might be seen as too political or value-laden. This finding is pertinent not only to understanding jurisdictional formation in general, but it is also particularly relevant for furthering our understanding of occupations that are created out of social movement pressure. Although we know from previous scholarship that many occupations that are created in large part out of mandates from movements eventually fall short of what movements had envisioned for their roles (Edelman, 1992; Edelman et al., 2011; Edelman et al., 1991; Kalev et al., 2006), previously we did not have an understanding of the process by which their work was structured. Importantly, through the data in my case I am able to trace the evolution of the jurisdiction of sustainability managers and identify the underlying processes that facilitated jurisdictional censoring, showing how and why sustainability managers constructed jurisdictional boundaries that excluded certain task areas – in this case social justice issues – from their work.

Navigating mandate and jurisdictional conflict

Finally, this paper explores what happens to task areas that are aligned with an occupational group's mandate but are excluded from their formal jurisdiction. I find that there

are certain task areas, like divestment in this case, that do not end up in sustainability manager's jurisdiction but that they continue to work on behind the scenes, concealing the full range of their work. This finding indicates that in addition to needing a better understanding of how mandates get translated into jurisdictions, we also need to pay closer attention to how, why, and when occupations engage in work that is outside of their formal jurisdiction. We have been operating to date largely under the assumption that the professionalization process is focused on expanding the set of tasks that are formally under an occupational group's control (Abbott, 1988). While this process of jurisdictional expansion is likely operating in many cases, it has created blind spots in our theorizing which have led us to overlook the question of when occupations may choose to strategically engage in work that they do not want others to know that they are pursuing. While scholarship has explored why and when occupations "hive-off" work, or refuse to engage in certain tasks, and the consequences of these moves on organizing (for example see Kellogg (2014) and Huising (2015)), this paper expands this research by showing that occupational groups may exclude work from their formal jurisdiction while still engaging in those tasks behind the scenes – a process I term jurisdictional concealing.

The findings in this paper on jurisdictional concealing matter because they provide a theoretical pathway by which occupational groups can both publically embrace a narrowed jurisdiction while continuing to further their broader mandate. This finding could also help explain previous puzzling results from studies of diversity whereby scholars have found that having a diversity manager position in an organization matters more for achieving diversity outcomes than having other policies and practices in place – the role itself has been shown to have an effect above and beyond the formal practices that the role is tasked with (Kalev et al.,

2006). So perhaps the influence of these types of occupational groups is not only to be found in their formal jurisdictions, but it is also in their ongoing "insurgency" work – a finding that has not been observed or recognized to date. Practically, these findings offer some hope for the role of occupational groups that have been established out of movement pressure to address societal challenges. They show that not only do movements put pressure on organizations to change (Briscoe & Gupta, 2016; McDonnell et al., 2015), but there is a potential mechanism whereby organizational insiders, in these occupations, contribute to mobilizing the movement and enabling movements to theoretically have more influence than they would have had without the occupational group in place.

Boundary conditions and opportunities for future research

The two primary limits of this study are the fact that it is focused on a single occupational group, and that this case is unusual in some fundamental ways. As this study is grounded in a single empirical case, it will be pertinent to explore whether or not the activities and processes that are identified here operate similarly in other contexts. In terms of the case itself, there is the important caveat that it is focused on sustainability managers whose mandate was established in large part by a movement. Therefore, the findings here are most extendable to similar settings, where movements or external groups like professional associations are important players in shaping the justification for new positions to be created. Within the scope of movement-mandated occupations, it is likely that these types of occupations will continue to be created inside a multitude of organizations and are deserving of greater attention. It would be of interest to compare how the findings from sustainability managers can help us understand how similar

occupations that are being created to manage social, environmental, and ethical concerns across many types of organizations are constructed.

The methodological choices in this study could also inadvertently have resulted in missed opportunities that future work could explore in greater detail. The first methodological consideration is that this study is focused on the field level, which makes the activities that unfolded at the organizational level slightly more opaque. Ethnographic methods would likely be best suited for investigating these processes on-the-ground in greater detail, especially to better understand the relationship between intra-occupational negotiation and inter-occupational battles in the construction of jurisdiction. The second is that I have only studied the first decade of this occupational group's construction, and therefore there are opportunities to examine the subsequent activities that follow on from those identified in this study. Finally, while my focus is on the occupational group, there are consequences for movements that could be explored in subsequent studies. It is unclear from my empirical lens how the occupational group's decision to eliminate certain tasks affected the movement. It is possible that by hiving off these areas, it leaves a space for the movement to still work and potentially mobilize around. Future work could examine similar cases from the perspective of movements, to understand how occupational groups that emerge from movement pressure might complement, co-opt, or supplant the movement.

Conclusion

This study contributes to our understanding of how jurisdictions are constructed for new occupational groups, and subsequently how these groups navigate their formal jurisdiction over time. The findings show that processes of intra-occupational negotiation were central in this

case, as sustainability managers engaged in jurisdictional censoring, narrowing their jurisdiction away from some of the task areas in their mandate that they feared would make them appear too Political or values-based. Furthermore, by uncovering how this group navigates an issue that is outside of their formal jurisdiction but aligns with their mandate, this paper also contributes to our understanding of when, why, and how occupational groups may choose to hide elements of their work through jurisdictional concealing, rather than expanding their formal jurisdiction. By basing this study in a setting where the occupational group was largely created out of a mandate from a movement, the findings are particularly relevant for our understanding of occupations that are established at the intersection of movements and organizations (which are increasingly being created), but they also extend to how occupations more generally navigate conflicts and tensions in their mandates, as is the case when third parties such as customers, regulators, professional associations, investors, or even other professions play a role in mandate construction. This study provides an in-depth analysis of the process of navigating the conflicts that can arise in these situations. It uncovers the processes by which new occupational groups negotiate at the field level to construct jurisdictional boundaries but also importantly shows how they may conceal elements of their work over time, which provides an explanation for how new occupational groups construct and maintain jurisdictional boundaries but work to further areas that may align with their mandate but be outside of their jurisdiction.

Chapter 3: Becoming an Insider: Pathways of movement from field founders to sustainability managers

Nascent fields include actors from multiple backgrounds who have differing interests and aims regarding the issues that are at the core of the field (Fligstein & McAdam, 2012; Hoffman, 1999). One way in which new fields come about is through the efforts of social movements that are working to change policies, practices, and standards across organizations and society. For example, movements have helped develop new fields around philanthropy (Mair & Hehenberger, 2014), environmental impact (Hoffman, 1996, 1999), human rights (Bartley & Child, 2011), workplace equality (Dobbin, 2009), and diversity (Edelman et al., 2001). Although these fields are spearheaded by movements, they often aim to create change within and across organizations. Therefore, early field-configuring spaces and conversations in these fields are filled with contestation among a variety of actors (including those pushing for change and those who are the targets), as they vie for control over meanings and attempt to reach a shared understanding regarding which issues are central to the field and how to proceed on those issues (Augustine & King, 2019).

Over time, in many of these fields, organizations eventually succumb to the pressure from movements – acknowledging an expanded set of expectations and new "responsibilities" – and creating positions inside organizations to manage these new areas of work. This process has undergirded new organizational positions such as affirmative action officers (Edelman et al., 1991), diversity officers (Dobbin et al., 2007; Kelly & Dobbin, 1998), recycling managers (Lounsbury, 1998, 2001), corporate social responsibility managers (Risi & Wickert, 2017), and philanthropy officers (Pamphile, 2019). However, numerous unanswered questions remain regarding these processes. First, how do individuals involved in the field potentially shift to these

new positions inside organizations that are tasked with managing the concerns of the field – are

certain individuals in the field more or less likely to become organizational insiders? In

particular, in movement-originated fields, are the movement-aligned individuals who were

essential to the field's ideals able to gain access organizations through these new positions?

Moreover, even if movement-aligned individuals are able to access these positions when they are

first established, as the new positions become more legitimate and institutionalized, those roles

may change as they become more fully integrated into organizations' structures; as this process

unfolds will movement-aligned individuals continue to influence the field's trajectory through

entry into these positions?

The questions surrounding who comes to occupy these insider roles that were created in

large part due to movement pressure is extremely important for understanding how the demands

of movements get translated into and institutionalized within organizations. The areas that these

individuals are tasked with, and the procedures for carrying them out, are often ambiguous

(especially at the beginning before routines are established), and the individuals in these

positions therefore have to work to define their roles and the jurisdiction that will be in their

purview (see Chapter 2 and Edelman et al. (1991)). The positions in question also sit at the

intersection of movements and organizations, and the individuals in them are often faced with

managing competing demands to pursue paradoxical goals (Pamphile, 2019). If we want to

understand how organizations implement movement-initiated concerns to be more equitable,

lessen their impact on the environment, and provide healthier environments for their workers, we

need to understand who comes to occupy the positions that oversee these areas.

To begin to address the question of who enters these key organizational positions, we

focus in particular on the career trajectories of field founders, who we define as individuals who

are involved in early field-configuring spaces, such as meetings, conferences, and online conversations in nascent fields. Field-configuring spaces are "backstage" arenas where individuals from different backgrounds debate with one another regarding the "rules of the game" and the future of the field (Lampel & Meyer, 2008; Mair & Hehenberger, 2014). We are interested in the characteristics of field founders that are associated with their likelihood of entering formal insider positions as managers of the very issues that they debated and discussed over time, and in how the degree of legitimacy of the position affects their entry patterns. Additionally, we are interested in those field founders who have a movement background or orientation, as in the case we study they are the most aligned with the original ideals of the field; they are the "evangelists" (Stinchcombe, 2002) who believe that significant change is desirable and possible.

We approach this study by identifying a population of field founders from the field of sustainability and tracing the career trajectories of a sample of 1,310 individuals from this group over time. We examine the career moves of field founders in sustainability across two sectors – higher education and healthcare, because we aim for our findings to be generalizable beyond a single sector. We also know that historically movements played more of a role in the field of sustainability in higher education, as colleges and universities were primary sites of student activism for sustainability (see Chapter 1). However, in healthcare, while movements have played a role in establishing the field of sustainability, there was a much lower percentage of those with a movement-aligned background amongst the field founders in this sector. Therefore, although we hypothesize similar patterns of entry into insider sustainability manager roles across the sectors, we are also interested in how the dynamics of who enters these positions over time

may also differ when the positions originate from a fundamentally different composition of field founders.

In the following, we first describe our setting and the field founders that we study. We then draw on theories of legitimacy and the role of social movements in establishing new fields to build hypotheses of the likelihood of field founders becoming sustainability managers. We subsequently test our hypotheses using panel data on the career trajectories of field founders, and find that our hypotheses are upheld fully in higher education, but only partially in the healthcare sector. We then conduct a qualitative follow-up study with sustainability managers in both sectors to understand the origins of their roles. We conclude that across the board, the legitimacy of sustainability manager positions is associated with a higher likelihood of field founders entering these positions. However, the entry patterns of movement-oriented founders differs across the two sectors. In the higher education sector, a sector with more direct movement involvement in early field-configuring spaces, movement-oriented field founders were more likely to become sustainability managers overall compared to other field founders. However, as the position became more legitimate, movement-oriented founders were no more likely than others to become sustainability managers in colleges and universities. Our findings show, therefore, that even when movement-oriented individuals are more able to enter formal positions as insiders when the positions are first established, if the position gains legitimacy over time, those evangelists may lose their direct influence as insider change agents.

RESEARCH SETTING: SUSTAINABILITY MANAGEMENT

The setting for this study is the field of sustainability and newly-created positions in sustainability management in two sectors – the higher education sector, which includes colleges and universities, and the healthcare sector, where we focus on sustainability managers in

hospitals. While these sectors differ in some ways, they face similar challenges in managing sustainability, as they are both large service-oriented organizations staffed by a combination of staff and professional groups who have a high degree of autonomy and discretion in their work. Furthermore, in the U.S. context, hospitals and higher education organizations are sometimes categorized as playing similar roles as "anchor organizations", meaning that they are some of the largest employers and most visible organizations in many communities.

'Sustainability' is an umbrella term that encompasses numerous areas and has been somewhat ambiguous over time (Scoones, 2007). Although it historically encompassed concerns about social, environmental, and economic wellbeing (colloquially referred to as the "triple bottom line), in most organizations today sustainability work primarily focuses on reducing and improving the environmental impact of organizations. In both the higher education and healthcare sectors, field-configuring spaces pre-dated the creation of formal roles in sustainability and were integral arenas where sustainability was debated amongst a diversity of actors. Our focus is on the individuals who were engaged in these spaces, whom we term "field founders."

In the healthcare sector, where we focus predominantly on sustainability in hospitals, much of the early action around sustainability began with concerns regarding mercury and chemicals in medical waste, which exposed staff to toxins and was sometimes also incinerated in local communities. A campaign to eradicate mercury in hospitals was organized in the mid-1990s, and from there other sustainability concerns were raised in hospitals, often by concerned staff or by leaders who took a stance on the issue. In the late 1990s, hospitals began to make sustainability commitments through a partnership program with the U.S. Environmental Protection Agency (EPA). One of the first, and primary, field-configuring spaces where these

new commitments and responsibilities were debated was at an annual conference called CleanMed than began in 2001 and continues to today. The conference was first organized by a movement organization, Health Care Without Harm, who were leading the medical waste incineration and mercury eradication efforts, and aimed to coordinate what they termed "a collaborative campaign for environmentally responsible health care." Over time, the annual CleanMed conference has attracted a range of individuals, from nurses and doctors to non-profit activists, third-party contractors and government employees.

In higher education, a social movement that was led in large part by students pressured colleges and universities to make commitments to a wide range of sustainability issues, such as recycling, green building, and carbon emissions reductions (Creighton, 1998; Eagan & Orr, 1992). Various non-profit organizations were built to oversee these commitments and the monitoring programs that have stemmed from them (Keniry, 1995). One of the primary field-configuring spaces in this sector was an online discussion forum that was established in 1992 as an extension of a book titled *The Campus and Environmental Responsibility* (Eagan & Orr, 1992). The forum participants include faculty, students, social movement activists, and non-profit employees, alongside university staff from a range of areas such as dining, facilities management, and housing.

Over time, as the actors convened and contested sustainability across these sectors, new positions of sustainability managers began to be created both in colleges and universities as well as hospitals. A professional association for sustainability managers in higher education was founded in 2006, and by 2015 it had grown to over 2,000 members. A similar association was created for hospital sustainability managers in 2008. Today, sustainability managers are common positions in thousands of colleges and universities as well as hospitals. They oversee a similar

program of work, managing recycling, energy efficiency, sustainability reporting, and the adoption of standards such as organic certification for food and green building codes for new construction projects. Sustainability represents a new movement-initiated field that has crossed existing organizational and position boundaries, incorporating a wide range of individuals with an interest in shaping the issue and in defining the practices and expectations that are collectively understood as "operating sustainably." At the center of this arena has been the creation and professionalization of dedicated positions of sustainability managers. In the following, we hypothesize how field founders might enter these positions.

THE LEGITIMATION OF NEW FIELDS

Research on the legitimation of new fields has examined the early years of new industries and markets (Fligstein & McAdam, 2012; Kennedy, 2008; Navis & Glynn, 2010; Russo, 2001; Santos & Eisenhardt, 2009). When new fields form, there is a great deal of ambiguity regarding the purpose, players, and boundaries of the field (Fligstein & McAdam, 2012). Actors enter into a new field without a clear position vis-à-vis one another and lack a shared understanding as to the goals and "rules of the game" in the field (Fligstein, 2001). Actors in new fields seek to appear more legitimate both to one another as well as to external audiences and therefore work to reduce ambiguity through activities such as constructing categorical boundaries through discursive associations with existing organizations (Kennedy, 2008); creating shared identities within the field (Navis & Glynn, 2010); agreeing on a "dominant design" for operating within the new field (Aldrich & Fiol, 1994); and framing their work as-if it was already legitimated (Aldrich & Fiol, 1994).

These processes are intended to increase the legitimacy – or the level of comprehensibility and taken-for-grantedness (Suchman, 1995) of the new field and the actors, positions, and meanings within it. In our case, we are interested in the establishment and degree of legitimacy of the position of sustainability managers over time, and how field founders might move into the role at different stages of the legitimation process. A marker of the legitimacy of a practice – which can be defined as the degree to which it is seen as "desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995: 574) – is when it becomes widely adopted as an appropriate and necessary component of efficient, rational organizations (Tolbert & Zucker, 1983). Therefore, ecological and institutional theories of legitimation have put forth the idea that a primary indicator of the degree of legitimacy of a new practice is the degree to which that practice has been adopted across organizations (Greve, 2002; Hannan & Carroll, 1992; Strang & Meyer, 1993; Strang & Soule, 1998). The number of adopters increases its prevalence, which in turn normalizes the practice.[28]

We know generally that the work of establishing a new occupational position is largely focused on legitimating new roles in organizations (Reay, Golden-Biddle, & Germann, 2006) and establishing the mandate (or the justification) for the role (Abbott, 1988; Hughes, 1958; Nelsen & Barley, 1997). Within the field of sustainability, after organizations made commitments to operate more sustainably, at first it was unclear who would be responsible for

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[28] Studies have therefore emphasized the degree to which a new form or practice becomes diffused across a population, and the mechanisms for diffusion (Strang & Meyer 1993; Strang & Soule 1998), emphasizing that in a new field there is a "liability of newness," but with each additional adopter, the form becomes more taken-for-granted and can therefore be considered to be more legitimate.

implementing these changes. Sometimes new tasks fell on existing staff, such as recycling officers or energy managers, but soon new positions began to be created with the mandate to manage "sustainability." As more and more individuals were hired into these positions across organizations, the position gained legitimacy. The establishment and adoption of the same position across organizations can be seen as an indicator of increased taken-for-grantedness of a new area, as knowledge and information becomes codified and bundled into tasks and routines (Colyvas & Powell, 2006). At the same time as similar positions were being established across organizations, the nascent occupational group that formed via coordination amongst individuals in these positions also exemplified other markers of institutionalization – such as the founding of professional associations, the development of new training and certification programs, and the introduction of standards (see Chapter 2).

We posit that greater legitimation of the occupational position would make it easier and more acceptable for field founders to move into sustainability manager roles. Whereas at first becoming a sustainability manager might have been a questionable career decision, or may have been limited to internal employees, the increasing visibility of the role, its subsequent taken-for-grantedness, and the surrounding institutional support for the position made it more attractive for field founders. We hypothesize, therefore, that there ought to be a higher likelihood of entrants into sustainability manager positions as the position became more legitimate – as measured via the number of individuals hired into sustainability manager positions to date.

Hypothesis 1: The number of prior individuals hired as sustainability managers will be positively associated with field founders' likelihood of entering sustainability manager positions.

MOVEMENTS' ROLE IN THE CREATION AND LEGITIMATION OF NEW FIELDS

The creation of new positions in organizations based on social movement pressure is part of a wider shift in society whereby social movements have increasingly directed their attention towards organizations directly (rather than via regulatory channels) (Walker, Martin, & McCarthy, 2008; Weber & King, 2013) to pressure them to change existing practices. This pressure can come in the form of direct action tactics such as boycotts, lawsuits, and shareholder resolutions (King & Soule, 2007; Lee & Lounsbury, 2011; Lounsbury, 2001; McDonnell et al., 2015), but it can also take the form of the work of movements to build and legitimate entirely new fields of activity with new norms, roles, and expectations regarding and expanding view of organizations' "responsibilities."

Most of the work on the role of movements in shaping new fields has focused on how movements create new markets and industries (Dutta, Rao, & Vasi, 2016; Lee, 2009; Weber, Heinze, & DeSoucey, 2008). However, the creation of new fields by movements can also spur changes within existing organizations. For example, the field of Black Studies, which developed through the establishment of new departments at universities, largely came out of student protests in the 1960s following the civil rights movement (Rojas, 2007). The field of equal opportunity, which changed the ways that organizations hired, evaluated, and promoted workers, was established in large part based on the women's and civil rights movements (Dobbin, 2009). And the field that developed around corporate environmentalism grew out of movements and resulted in widespread changes to numerous industries and organizations, for example within the chemical industry (Hoffman, 1999). Movements' efforts to build the cultural and material infrastructure for new fields can result in changes to practices, products, or positions within

existing organizations through such efforts such as establishing new standards (Bartley, 2007a), introducing and legitimating new professional areas of expertise (Howard-Grenville et al., 2017), challenging rules around hiring and promotion in the workplace (Briscoe & Safford, 2008; Dobbin, 2009), and the activity that we study here – the creation of entirely new positions that can eventually also grow into entirely new occupational groups that are insiders tasked with managing movement-initiated areas of work.

The role that movements play in shaping new positions and occupations is not well understood. While we have examples that indicate that movements can spur the creation of new positions (Dobbin, 2009; Lounsbury, 2001), it is particularly unclear who comes to occupy these positions and what backgrounds they bring to the role (Briscoe & Gupta, 2016) – for an exception see Lounsbury (2001). It is important to understand who fills these roles and how the positions evolve over time because the individuals in these positions are the ones who largely attempt to manage substantive changes to organizational practices. In the case of affirmative action officers, for example, Edelman et al. (1991: 73) provides evidence that organizational change "depends largely on the initiative and agenda of those persons within organizations who are charged with managing the compliance effort."

One key way to understand these roles better is to examine the backgrounds of the individuals who are hired into them. We know that people bring their skills, perspectives, and expertise to new roles through their previous educational and work experience. Scholars have long been interested in how individuals' backgrounds affect the likelihood of them becoming mobilized to join social movements (Klandermans, 1984; Snow, Zurcher Jr, & Ekland-Olson, 1980). Work on recruitment to activism has shown that biographical antecedents, or aspects of an

individuals' professional and personal history are correlated with individuals choosing to engage in high-risk activism (McAdam, 1986). For example, McAdam (1986) found that individuals with a greater number of organizational affiliations (in particular with political and civil rights organizations), more direct experience in civil rights activism, and more extensive ties to other activists were more likely to show up to participate in high-risk activism during the 1964 Freedom Summer. Those who were already embedded in the network of activism were more likely to continue their involvement in these new roles. Furthermore, in a follow-up study of the consequences of this participation, 46% of those that participated in the Freedom Summer strongly agreed with the statement "My participation in social movements affected my choices about work." (McAdam, 1989), showing the impact that engaging in activism can also have on individuals' subsequent professional choices. More recent work on activism in the workplace (which is closer to our case of the formal roles of sustainability managers), also shows that grassroots employee groups that have mobilized and agitated for change in workplace are usually comprised of individuals with a direct personal connection to the movement that they are working to further, such as the LGBT rights in the workplace (Scully & Segal, 2002). Backgrounds and identities matter for choices of engaging in movement-oriented work.

Organizational theorists have also proposed that those who are highly engaged in promoting a new area are likely to then become the "nascent professionals" tasked with codifying that area "in organizational routines" (Strang & Meyer, 1993: 495). In our case, we posit that field founders with a movement-aligned background would be more likely to seek the opportunity to work towards institutionalizing the changes that they envisioned and would also be more likely to be seen by organizations as having the knowledge and skills in this area due to

their role in establishing the new field. Therefore, we hypothesize that field founders with a movement-aligned background would be more likely than other field founders to take on new opportunities as managers of movement-initiated areas of work inside organizations.

Hypothesis 2: Field founders with a movement-aligned background will be more likely to enter sustainability manager positions than other field founders.

In addition to this hypothesis, there is also reason to believe that individuals with a more movement-aligned background will be more likely to enter insider positions in the early stages of the position's establishment, but that they may not play as central of a role in the field over time as the new occupational positions become legitimated. The work of legitimating a new field depends heavily on individuals who are committed to the idea or practice to do the work needed to raise awareness and make the idea or practice more socio-politically acceptable. Whether the new field involves the creation of a new organizational form or the spread of a new program, movement activists are key players in the legitimation effort. When the field lacks legitimacy, their efforts are more valued and have a greater impact on the evolution of the field (Strang & Meyer, 1993). Carroll (1997: 129) described these activists as individuals "devoted to causes, lifestyles and visions of a better future for all (rather than profit-maximizing entrepreneurs engaged in competitive battles based primarily on self-interest)." Their role is theorizing the possibility of and the need for the new model of action and making it an "institutional imperative," but once the model is widely accepted, their presence is perhaps less central to the field's persistence (Greenwood, Suddaby, & Hinings, 2002; Strang & Meyer, 1993: 495).

In many ways, increasing legitimacy, which leads to acceptance and institutionalization of their cause, is what movement actors seek when promoting a new ideal or goal. They strive

for increased adoption of changes to the everyday way of working and living to more closely

match their ideals, and they work to institutionalize these changes through mechanisms such as

regulations (Dobbin, 2009), voluntary standards (Bartley, 2007b), and cultural change (Vasi,

Walker, Johnson, & Tan, 2015). In a study of the establishment of an industry for grass-fed beef,

for example, movements were essential for providing the cultural codes that encouraged

entrepreneurship in this area as well establishing the material distribution channels, such as

farmer's markets, buying clubs, and direct sales that enabled producers to reach ideologically-

aligned consumers (Weber et al., 2008). Creed, Scully, and Austin (2002) found that legitimating

accounts by movement-oriented individuals were also key to establishing common meanings and

identities that legitimated gay-friendly workplace practices. In these cases, movement activity

was focused on the earliest efforts at legitimation. Within the field of sustainability, movements

have worked to routinize practices such as green building standards (Hoffman & Henn, 2008),

recycling (Lounsbury et al., 2003), the consideration of environmental impacts in manufacturing

(Howard-Grenville, 2007), and importantly the creation and adoption of new positions to manage

these new areas of work.

However, as social-movement-initiated fields and the positions in them become more

legitimate, one might argue that movement-aligned individuals are viewed as less essential to the

future growth of the field. Once a field becomes taken-for-granted, norms of behavior and

institutional pressures develop that lead to self-propagation of the initial cause (Tolbert &

Zucker, 1983). The cultural codes that movements helped to establish take hold and are imbued

with value. The products and distribution channels activists helped to build are now accepted as

part of the material landscape. The organizational commitments, voluntary standards, and new

practices that activists normalized become incorporated into organizational goals and evaluation measures. In a sense, the field is becoming institutionalized, and as is true with other social movement-related phenomena, institutionalization increases the need for more professional involvement and the committed activists are needed less (Jenkins, 1983; Schneiberg & Lounsbury, 2008).

This move away from a movement orientation has been shown in the development of other social-movement-initiated fields. For example, in a study of how the recycling field shifted over time, Lounsbury (2005) found that the logics of the field shifted from a "holistic recycling logic" that was promoted by activists to eventually encompassing a "technocratic recycling logic" – although the latter logic did not replace the former, as the field was institutionalized it lost much of the connection to its activist roots. The peripheralization of activists is also evident in the field of sustainability (Augustine & King, 2019). As the role of sustainability manager became more legitimate, efficiency became a more common rationale for supporting sustainability work in higher education (rather than movement-aligned issues).

Within new positions that have been created to lead and manage social-movement-initiated work inside organizations, this shift would likely manifest itself in the kinds of people who take on these roles over time. Individuals with a movement-aligned background bring needed resources in early stages of a field, which make them ideal leaders promoting the cause of sustainability. But in later stages of legitimation, those same resources become less valued. Other types of individuals, including members of adjacent occupations, become viable contenders for these positions inasmuch as they bring other types of resources (e.g., knowledge about how to implement innovation or an understanding of how to navigate internal

bureaucracies) to the field that activists are less well-positioned to bring. Additionally, while individuals from a movement-aligned background might not care as much about the degree of legitimacy of a position when they are looking for a professional role (because they are more concerned with the ideals of change than the status or professional opportunity it affords), others who may not have been interested in the role at first may take more interest in it as it becomes more legitimate. We hypothesize, therefore, that as movement-initiated positions become more legitimate, field founders with movement-aligned backgrounds, who are centrally motivated by ideals and have been integral to creating *the impetus* for change, become more peripheral to the change efforts, and are therefore less likely to enter sustainability manager positions as the legitimacy of the position increases.

Hypothesis 3: Field founders with movement-aligned backgrounds' likelihood of entry into sustainability manager positions will decrease as the number of prior field founders hired into those positions increases.

METHODS

LinkedIn profile data and dependent variable

In this study, we use biographical data on individuals, which has been utilized in studies of recruitment to activism (McAdam, 1986), to assess field founders' likelihood of becoming a sustainability manager. We examine a population of individuals who were engaged in field-configuring spaces where sustainability was being discussed and debated. To construct our sample, we first gathered all of the available participant lists from the annual sustainability conference in healthcare, CleanMed, which was founded by a social movement and grew into a partnership over time between movement organizations, hospitals, and a new sustainability professional association. We were able to obtain the full lists of all attendees from 2001, 2002, 2004, 2006,

2008, 2009, and 2010. This resulted in 1,285 unique individuals, ranging from nurses and doctors to non-profit activists, third-party contractors and government employees. For the higher education sector, we gathered the names of all participants in an online forum about sustainability in higher education from 1992 to 2010, which totals 1,435 individuals. [29] Faculty, students, social movement activists, and non-profit employees were involved in these conversations, alongside university staff from a range of areas such as dining, facilities management, and housing. In both sectors, we include information on all available field founders were involved up to and including 2010.

We then proceeded to gather biographical data on these individuals from the online resume repository *LinkedIn*. Of the 1,285 field founders in the healthcare sector, 510 (40%) had active and complete *LinkedIn* profiles. [30] Of the 1,435 field founders in the higher education sector, 800 (56%) had active and complete *LinkedIn* profiles. [31] These individuals comprise our final sample. The benefit of *LinkedIn* is that we obtain the full career histories for each individual. For example, if an individual attended CleanMed in 2001, we can obtain data on LinkedIn regarding what employment positions they held before this engagement as well as what they proceeded to do after it. Our annual observations for individuals therefore ranges from 1966-2018, when we completed our data collection. The 510 individuals in healthcare comprise 11,093 person-year observations and the 800 individuals in higher education sector comprise 12,233 person-year observations.

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[29] In 2009 there was an attempt to shift the field conversations to a technologically-superior platform that was organized under topics and threads and could have provided a better structure to the field discourse. But between October 2009 and December 2010, there were only 592 posts to this new platform, while the forum that we study had 1,662 posts over the same period of time. In 2016, the new platform was discontinued, as the threads on it had an average of 400 days since their last posts.

[30] Active profiles were those that could be accessed on *LinkedIn*. I define complete profiles as those that included at least 1 work experience and the details of at least 1 degree at the high school level or above.

[31] It is important to consider the possibility of selection bias with using *LinkenIn* profiles as our primary source of data. In particular, it is worth considering whether or not people with different biographical backgrounds are more or less likely to use *LinkedIn* and whether or not individuals who enter sustainability manager roles in particular are more or less likely to use *LinkedIn*. We are able to investigate this in part in our higher education data, as we know the roles that individuals were in when they were on the forum. We find that neither sustainability managers nor activists in this sector were statistically more or less likely than other groups (such as facilities managers, energy managers, or business people) to have an active and complete *LinkedIn* profile.

The dependent variable in the analyses is the entry of an individual into a sustainability manager role. In one set of analyses it is constructed from the data on field founders and positions in hospitals and in the second set of analyses is based on the higher education sector. To construct this dependent variable, we hand-coded each individuals' work experience information from their *LinkedIn* profiles, examining the title and job description for whether or not each role was as a sustainability manager. Keywords were sufficient for the majority of cases, but early roles and even some later roles have unconventional titles, such as "Environmental Stewardship Manager." Therefore, all of the roles were hand coded by the authors.

Independent variables

There are two main independent variables in this study. The first is the number of previous entries by field founders into sustainability manager roles in each sector. Figure 3.1 shows a graph of this trajectory in each sector by year. This variable comes exclusively from the number of entries into a sustainability manager role that we measure through our sample, and therefore it is important to recognize that the adoption curve in our sample may differ slightly from the number of sustainability manager position entries in the sector overall. However, the steepest sections of the curves correspond to the years when the sustainability manager positions were becoming more legitimate in both sectors (though activities such as the beginning of professional associations, annual gatherings, certification programs, and standards for their work) – between 2005 and 2010, so they map on to what we know about other indicators of the establishment and legitimation of this position. This variable is measured by the cumulative entries into sustainability manager roles in the field founder sample up to and including the previous year; because the *LinkedIn* profiles do not provide all individuals' month or day of entry into a new position, we measure this variable by year.

--------------------------------Insert Figure 3.1 about here --------------------------------

The second main independent variable of interest in this study is whether or not an individual has a movement-aligned background. This is a binary variable that is either 0 or 1. We utilized two pieces of biographical information to construct this variable. First, we consider that having significant experience working in the non-profit work sector is one indicator. Amongst the field founders, those with significant non-profit experience represent the activists and movement-aligned individuals who were largely advocating for change in these sectors. These are the individuals who expressed ongoing dedication and commitment to the ideals in this field. We therefore coded field founders with more than one standard deviation above the mean years of experience in the non-profit sector as having a movement-aligned background. This includes anyone with 6 or more years of experience working in the non-profit sector.

However, we also wanted to include individuals who did not necessarily have a long tenure in movement-aligned organizations, but who expressed a connection to movement ideals nonetheless – especially to account for younger movement actors who engaged in this field early in their working lives. Therefore, we conducted a dictionary-based word count of the number of "movement-aligned" words that each individual utilized to describe their previous work experience. The dictionary was derived from a topic model of the conversations in the online forum about sustainability in higher education (as discussed in detail in Chapter 1). It includes terms such as "campaign," "coalition," "movement," and "organizing."[32] Again, we consider those individuals with more than one standard deviation above the mean of movement-aligned

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[32] The full dictionary of movement-oriented words includes the following terms: action; alliance; campaign; challenge; clean; climate; climate_change; coalition*; energy; global; global_warming; movement*; national; network*; organization*; organizing; peace; people; world; youth

words in their profiles to date to have a movement-aligned background. In this case this includes

individuals who used more than 23 movement-oriented words in their profile entries. As an

example, the following description was part of an individual's profile that was more than one

standard deviation above the mean in use of movement-aligned words:

> Coordinated the coalition from our founding meeting until PowerShift '07, our first
> national conference with 6,000 young people in Washington, D.C. I built a diverse and
> effective coalition, launched our Campus Climate Challenge campaign, and grew our
> annual budget to $5 million in 2007, supporting 75 full-time staff across the country.

A second example is the following from another profile that was more than one standard

deviation above the mean in its inclusion of movement-aligned words:

> Launched at COP22 in November 2016, ECONGO aspires to serve as a "network of
> networks" to inspire innovative climate action and deep decarbonization through
> effective education, communication and outreach. Supporting existing United Nations
> and related efforts to inform and engage publics to help develop adequate responses to
> climate/global changes on a regional and local basis, ECONGO will help maximize our
> collective impact to reduce climate risks and maximize sustainable solutions.

In both of the indicators that we use to construct the movement-aligned background

variable, we lagged them by one year (i.e. both the non-profit experience and the use of

movement-aligned words in profile descriptions are considered up to and including the prior

year). In both cases, we consider that by including only individuals who are more than 1 standard

deviation above the mean we are adopting a conservative measure for who we are considering to

have a movement-aligned background and only including those with a strong commitment to the

movement in their behavior and self-descriptions.

Control variables

In addition to the main independent variables of interest, we include a number of control variables in our models, including age, gender, work experience, and educational history (level and area). Additionally, we control for the total number of words to date in each *LinkedIn* profile and include a dummy variable to control for time.

First, we include each individual's estimated age. The *LinkedIn* profiles do not list an individual's age, so we calculated an estimate for age in two ways. First, for those individuals who reported the years of their undergraduate education we calculated their age as completing their undergraduate education at the age of 22. For those who did not list the dates for their undergraduate education, we calculated their age as starting their first job at the average age in which all others in the sample started their first jobs – at the age of 25. These two data points enable us to estimate the age for everyone in our sample.

We proceeded to include the sex of each individual. We created this variable using individuals' first names and the genderize.io program, which calculates the probability that a first name is either male or female, based on the occurrence of that name in official sources such as the Social Security Administration records as well as in social media sources that verify the gender of the users (Lerchenmueller, 2016). In our case, if the probability of a given sex was less than 80 percent, as it was for names such as "Pat," "Casey," and "Jaime" we manually checked the profiles of these individuals and utilized their photographs to determine their sex.

We created a continuous variable for work experience that represents the total number of positions that each individual had held up to a given year. We constructed the variable in this manner because total years of work experience was highly correlated with age, and we wanted to be able to control for experience and age in our models.

We determined the educational history – including the highest degree and the areas of study – for each individual from the information in their *LinkedIn* profiles. The degree variables are dummy (0/1) variables that represent the highest degree reported by each individual. As no individual in our sample reported their highest degree as high school, there are three mutually exclusive degree level variables representing the highest degree attained: 1) undergraduate degree; 2) Master's degree; and 3) PhD. In all models, the category "undergraduate degree," is excluded and therefore serves as a reference category. The second set of variables related to educational history are the degree areas of study. The degree areas are not mutually exclusive, and therefore comprise all of the areas that individuals reported studying. One co-author and one research assistant hand coded the individuals' degrees into 12 categories. These were then transformed to dummy variables (0/1) for each of the following degree areas: 1) architecture; 2) business; 3) education; 4) engineering; 5) environmental studies; 6) hard sciences; 7) humanities; 8) law; 9) medicine; 10) social sciences; 11) unclear; and 12) other. In all models, the category "other," which is a catch-all for areas that do not fit in the other degree area categories is excluded from the models and therefore serves as a reference category.

We control for the total number of words an individual used in their profile up until that date. We include this control because our independent variable of social-movement background is constructed in part based on an individual's use of total movement-aligned words. Finally, we include a control variable for time. It is a dummy (0/1) variable that is coded as 1 if the year is after 2000. The descriptive statistics and correlations of all the variables (by industry sample) are shown in Tables 3.1, 3.2, 3.3 and 3.4.

-------------------------- Insert Tables 3.1, 3.2, 3.3 & 3.4 about here--------------------------

Analyses

We utilize a logistic regression with random effects set up for panel data to understand the relationship between individuals' biographies and their likelihood of being hired as sustainability managers in the two sectors. In these models, we cluster the standard errors by individual. We run separate analyses for the healthcare and higher education sectors, with the sample drawn from the two different sectors and testing for the sector-specific dependent variable for each sector (i.e. becoming a sustainability manger in the healthcare sector in the healthcare models and in higher education in the higher education models). We ran all the models to include sustainability manager positions established after the year 1980. Table 3.5 shows the models for the healthcare sector and Table 3.6 shows the models for the higher education sector.

--------------------------Insert Tables 3.5 & 3.6 about here--------------------------

FINDINGS

Model 1 includes all of the control variables for the healthcare sector and Model 5 includes all of the control variables for the higher education sector. These models show that there are some differences in the profiles of field founders who are more likely to become sustainability managers in the two sectors. For example, in healthcare, those field founders with graduate degrees are less likely than those with undergraduate degrees to become sustainability managers (shown in Model 1), while this relationship is reversed in the higher education sector (shown in Model 5), where those with graduate degrees are more than twice as likely than those whose highest degree was an undergraduate degree to become sustainability managers. In the higher education sector, an individual's total positions to date has a negative effect on becoming

a sustainability manager, while being female (sex=1) has a positive effect. Female field founders are twice as likely to become sustainability managers in colleges and universities compared to male field founders. Neither the total number of previous positions nor sex are significant in predicting entry to the role in the healthcare sector. In both models the time period control variable is positive and significant, showing that field founders in both sectors were about nine times more likely to become sustainability managers after 2000.

We run Models 2 and 6 to test H1, that the number of prior field founders hired as sustainability managers will be positively associated with field founders' likelihood of becoming a sustainability manager. In both sectors, the number of prior entrants is statistically significant and positively correlated with the likelihood of field founders becoming a sustainability manager, providing support for H1. In the higher education sector, the probability of becoming a sustainability manager is 2.44 times higher at the mean number of prior entrants compared to zero prior entrants. And the probability at one standard deviation above the mean number of prior entrants is twice that what it is at the mean. A similar pattern holds in the healthcare sector, although it is important to note that the overall probabilities of entry are much smaller. In the healthcare sector, moving from zero entrants to the mean number of entrants results in a 3.8 times higher probability that an individual becomes a sustainability manager, and moving from the mean to 1 standard deviation above the mean results in 2.8 times higher probability than at the mean number of prior entrants. We also ran this analysis with a squared term for the number of previous entrants, to see if there was a curvilinear relationship between previous entries and subsequent likelihood to enter into these positions. We did not find that this squared term was

significant in either of these two models, indicating a linear, rather than curvilinear effect of previous entrants.

We run Models 3 and 7 to test H2, that field founders with a movement-aligned background will be more likely to become sustainability managers than other field founders. We find mixed results in these analyses. H2 is supported in the higher education sector, where having a movement background is significant (at the $p<.05$ level) and positively associated with becoming a sustainability manager. In this sector, individuals with a movement background are twice as likely to become sustainability managers. However, we find the opposite result in the healthcare industry, where having a movement-oriented background is significant but negatively correlated with becoming a sustainability manager.

The results of our tests for H3 are shown in Models 4 and 8. As shown in Model 4, in the healthcare sector, the interaction between the number of previous sustainability manager entries and having a movement-aligned background was not significant. Therefore, the data in the healthcare sector does not support H3. However, as shown in Model 8, in the higher education sector the interaction between movement-aligned background (0/1) and the continuous variable of total sustainability manager entries in the sector to date is negative and significant, indicating that the total number of previous entries negatively moderates the effect of having a movement-oriented background on the likelihood of becoming a sustainability manager. H3 is therefore supported in the higher education sector. However, it is important to note the caveat that our support for H3 is only found in the sector where those with a movement-oriented background were more likely to enter these positions overall. The interaction effects are shown through graphs of the marginal effects and the average marginal effect in Figures 3.2 and 3.3. As shown

in Figure 3.2, although movement-oriented individuals have a higher probability of becoming a sustainability manager overall, as the field becomes more legitimate and more people have entered this position, the difference in likelihood between movement-oriented and other individuals is negligible. Post-estimation tests on the higher education sector data show that after 150 individual field founders have become sustainability managers, having a movement-oriented background is no longer a statistically-significant predictor of becoming a sustainability manager.

----------------------------------Insert Figures 3.2 & 3.3 about here----------------------------------

QUALITATIVE FOLLOW-UP INVESTIGATION

Our statistical analyses produced mixed results, as we found support for H2 and H3 in the higher education sector but not in the healthcare sector. At this point, we wanted to further explore why it might be that field founders with movement-aligned backgrounds were more likely to enter sustainability manager roles in the higher education sector but not in hospitals. Following the tenets of abductive reasoning, we posit that the explanation for these differences may be in the different ways that the positions in these two sectors were established, and in particular potential differences in the degree to which movements directly affected the creation of these roles. For example, we know that the healthcare sector move into sustainability was initiated in part by movements but also in large part by programs from the Environmental Protection Agency (EPA), while regulation and government intervention did not play a large role in the higher education sector. Additionally, we know that colleges and universities are sites of significant direct movement action in general, and in the sustainability field in particular, as

numerous histories have been written on the pivotal role of student activism in higher education organizations' moves into sustainability (Creighton, 1998; Eagan & Orr, 1992; Keniry, 1995). We can also see that in our sample, 40% of the field founders in the higher education sector had a movement-oriented background, while only 19% of those in the healthcare field-configuring conversations had a movement-oriented background.

With this knowledge in hand, we carried out a follow-up abductive (Timmermans & Tavory, 2012) qualitative study to investigate the possible differences in how and why sustainability manager positions were established in these two sectors to further explicate our quantitative results as well as generate propositions that can be tested in subsequent work. We therefore conducted semi-structured interviews with 29 sustainability managers working in higher education and 23 sustainability managers working in hospitals. All interviews were semi-structured and lasted an average of 1 hour each. We recruited participants through a purposeful sampling strategy (Strauss & Corbin, 1998) to comprise a diverse group of organizations that varied based on geography, size, and type (e.g. private, public, religious, non-profit, etc.).[33]

For this follow-up study, we coded the interviews for participants' views on the history of the establishment of sustainability management positions in their organizations and sectors, following abductive approaches that embrace, rather than attempt to ignore, previously-understood empirical and theoretical aspects of the case at hand (Timmermans & Tavory, 2012). Indeed, we find that the two sectors differed dramatically in individuals' accounts of the

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[33] The response rate for the higher education sector was 69% and 62% for the healthcare sector. All of the interviews were recorded and transcribed except one in which the participant preferred to not be recorded.

establishment of their positions, and in particular in the role of social movements in creating the impetus and justification, or occupational mandate (Hughes, 1958), for their positions.

Individuals in the higher education sector predominantly credited a movement with the establishment of their roles and their organizations' moves into sustainability. When asked about the history of their positions, they answered that "there was a movement on campus," (1012) or that their roles could be attributed "very much to students," (1018) or that a student group "advocated for an office of sustainability" (1001). One individual recounted that "the students have been calling for a sustainability person for a while" (1009), and others described the movement more broadly than students, talking about how "the faculty and staff and students had been you know kind of beating a drum of wanting to have more sustainability" (1031). The sustainability managers in higher education described direct collective action and tactics such as sit-ins and signature campaigns as driving the establishment of their positions. And this is the sector where we find that movement-oriented individuals were more likely to enter sustainability manager roles and gain access as internal change agents, especially before the positions were widely legitimated.

In the healthcare sector, we heard a very different story. The sustainability managers discussed a range of drivers for the creation of their roles, emphasizing organizational goals of efficiency and cost savings. For example, hospital sustainability managers said that "the return on investment was there and it helped justify it," (2002) or "it's about cost reduction," (2005), or "that's the initial driver, I think, for a lot of organizations is there's significant opportunity for efficiencies" (2011). Additionally, they also mentioned other mechanisms such as the efforts of

individual organizational leaders, isomorphic pressures from peers in their industry, and reputation concerns within their communities.

Even when we probed about the role of movements, the participants overwhelmingly said that their impression was that their organization, and the healthcare sector more generally, had not experienced much movement pressure for creating sustainability manager positions. In response to the question – "Has there been a social movement, for the hospital go green?" one manager answered "I think I would say no, and that's unfortunate" (2002). When we asked if patients, or other concerned groups were putting pressure on hospitals to do more in sustainability another took a second to respond before saying "I don't think that we ever had patients asking about it" (2001). When we asked another sustainability manager if there was any collective action within their community for their hospital to go green they said:

> No. I think it's just the community is more interested in the hospital as being a place of care and a respite and less so much as a beacon of sustainability…It is really coming from the top down at [my hospital], so it is coming from the CEO and the CFO. They're very interested in these energy saving initiatives (2005).

In this follow-up qualitative study, it seems that although movements played a pivotal role in establishing the field of sustainability in both sectors, they were perhaps less central to the creation of positions in sustainability in the healthcare sector, where the normative changes movements worked towards for sustainability may have translated into different mechanisms of adoption of the position, such as efficiency goals, pressure or incentives from regulators, changes to leaders' beliefs, mimetic isomorphism, and reputation concerns. These align with the second-stage logics and goals that are often found in cases of institutionalization (Lounsbury, 2005; Tolbert & Zucker, 1983). Of course, we recognize that there could be a different mechanism underlying the differences we find in our statistical models showing the sector differences in the

probability of field founders with movement-aligned backgrounds entering sustainability

manager roles in these two sectors. However, with the qualitative evidence that we find on the

different mechanisms by which these positions were established in these two sectors, we

generate the following theoretical propositions, based on modifications to our original

hypotheses:

> *Proposition 1: Field founders with a movement-aligned background will be more likely than other field founders to enter positions where the position's mandate was created out of pressure from a social movement.*
>
> *Proposition 2: Within positions whose mandate was created out of pressure from a social movement, field founders with movement-aligned backgrounds' likelihood of entering these positions will decrease as the positions become more legitimate.*

We posit that in order for individuals from a movement-aligned background to gain

access directly to insider change agent positions such as sustainability managers, it is perhaps

also pertinent that movements have played a direct role in shaping the mandate for the position.

We encourage future work that can isolate the effect of a mandate from a movement on the

substantive differences in who comes to occupy these positions that are tasked with

implementing movement-initiated changes inside organizations.

DISCUSSION

Scholarship to date has helped us understand the role that movements play in establishing

new markets, fields, and industries, such as the wind power industry (Sine & Lee, 2009), the

organic food industry (Lee, 2009), and the market for grass-fed beef (Weber et al., 2008). The

establishment of new fields and markets is part of the overall expansion in movements'

repertoires beyond their traditional efforts of targeting the state, and towards a broader array of

tactics aimed at effecting change in organizations (Van Dyke et al., 2004; Walker et al., 2008).

Existing work on how movements target organizations has illuminated how and when social movement pressure, especially in the form of direct action tactics such as boycotts, can change organizational practices, such as producing a corporate social responsibility report or establishing a board committee on corporate social responsibility (McDonnell et al., 2015). Work in this area has furthered our understanding of which organizations get targeted when (King & McDonnell, 2012) and when organizations are more likely to concede to movement pressure (King, 2008). The unanswered question is what happens next – how do commitments by organizations get put into practice?

One key area that is central to answering this question is an understanding of new positions in organizations that are created to "manage" movement demands and the moves by which individuals who work to create new fields might have access to these insider roles. Empirically, we can see the establishment of many new positions in organizations that "manage" social-movement-initiated areas – such as equal opportunity, diversity, corporate social responsibility, and sustainability (Dobbin, 2009; Edelman et al., 1991; Kelly & Dobbin, 1998; Lounsbury, 1998; Pamphile, 2019; Risi & Wickert, 2017; Wright, Nyberg, & Grant, 2012). Who comes to occupy these roles matter, and therefore in this study we have asked about entry to these positions as they become more legitimate over time in addition to the patterns of entry by field founders with a movement orientation, who we consider most committed to the ideals of the original movement-oriented field.

This paper delves into an exploration of these dynamics in particular through the pathway by which field founders, or those who are engaged in early field-configuring spaces and conversations, access these formal positions. We therefore go further than previous work, not

only asking when or why these positions were established, but focusing on who actually comes

to occupy them (for an exception see Lounsbury (2001)), with our investigation of both the role

of field founders' backgrounds and the level of legitimacy of the position in affecting the

likelihood of different individuals entering these positions.

Managing movement issues inside organizations

Existing theoretical models conceptualize social movements as changing organizations

primarily in two ways: (1) external pressure to change rules or norms or (2) internal mobilization

of existing organizational members (Briscoe & Gupta, 2016). The first case is the prototypical

social movement model. Social movements either target the state, pressuring it to regulate

organizations, or they target organizations directly through boycotts or reputational threats to

push them to change their practices (King, 2008; King & Soule, 2007; McDonnell & King, 2013;

McDonnell et al., 2015; Van Dyke et al., 2004). In both cases, social movement actors are often

defined as "extra-institutional," indicating that they inhabit roles and employ tactics that are

outside of the organizations they work to change (Snow et al., 2008).

Recently, scholars have expanded our understanding of social movements and

organizational change by examining movement mobilization *inside* organizations, most notably

in the case of employee activism regarding lesbian, gay, bisexual, and transgender (LGBT) rights

in the workplace (Briscoe & Safford, 2008; Raeburn, 2004; Scully & Segal, 2002). In these

studies, employees mobilize, often initially through support groups, and then agitate for changes

to policies such as pension benefits for same-sex couples (Raeburn, 2004). These are

"grassroots" groups comprised of employees with other formal positions in their organizations –

they are not tasked with jurisdiction over LGBT issues. This work extends our understanding of

the relationship between social movement actors and targets, and importantly illustrates how organizational change can come from inside organizations (Dutton, Ashford, O'Neill, & Lawrence, 2001). However, our findings draw attention to a third set of processes that does not fit these existing accounts of extra-institutional or employee-based grassroots movements. By identifying and working to understand the role of proximate field actors who work in conversation with organizations as well as formal positions inside organizations that are established to manage movement-aligned areas, this paper greatly expands our conceptualization of the pathways by which movements affect organizations.

The effects of institutionalization on movement-mandated areas

One of the primary findings from this study is that even when individuals from a movement-oriented background are more likely to enter sustainability manager positions, their likelihood of entry is negatively moderated by the degree of legitimacy of the position. This was shown through the analyses of individuals in the higher education sector. This finding indicates that the process of increased legitimacy of a new position, a key step in the institutionalization of these positions, is associated with a decreasing rate of those from a movement-oriented background being more likely to become insider change agents. This finding highlights the double-edged sword of the institutionalization of movement demands. While movements work to have new practices and positions more widely adopted, as these changes become more legitimate features of organizations, they can lose their connection to the original movement (Lounsbury, 2005), and we find support for this downside of increase legitimacy in particular through the lessening of entry by movement-aligned individuals into positions as sustainability managers.

While troubling for movement actors, these findings add to existing literature that has focused in particular on changes *within* social movement organizations as they institutionalize. Historically, a defining feature of social movement theory has been the view that movements are in fact defined by their lack of organization, coordination, norms, rules, and leadership, unlike more organized groups striving for change, such as political parties (Heberle, 1951; Michels, 1911; Smelser, 1962). Smelser distinguished movements from non-movements, writing that "collective behavior… is not institutionalized behavior. According to the degree to which it becomes institutionalized, it loses its distinctive character (1962: 8)." In our study, even in the sector where those field founders from a movement-oriented background entered sustainability manager positions at a higher rate, over time these positions lost their distinctive (movement-oriented) character as others became just as likely to enter the position as it increased in legitimacy.

This idea of how increased organization and institutionalization of movements is detrimental to their distinctive radical nature is predicated on the work of Michels (1911), who put forward the idea of the "iron law of oligarchy," whereby movements follow a trajectory in which they start out informal, but over time become more organized and bureaucratic, which in turn results in a lessening of radical tactics and a shift in focus towards maintaining the formal bureaucratic organization rather than furthering the goals of the movement. Following in this work, Piven and Cloward (1979: xi) found, through their study of the workers' movements, the civil rights movement and the welfare rights movement, that when these movements became more formalized, they "abandoned their oppositional politics." Additional work on the professionalization of movement members aligns with these concerns. Professionals increase

routines such as strategic planning, budgets, and financial reporting that create reliable, predictable, and static organizations that, while more robust to fluctuations in funding and resources, are less likely to embrace radical activities (Thompson, 1967; Weber, 1946, 1978). As Staggenborg (1988) has found in her extensive work on the professionalization of the pro-choice (abortion rights) movement, actors in the movement who are "professionals" are less likely to advocate for using innovative or disruptive tactics and instead encourage the use of institutionalized tactics, again indicating that processes of institutionalization and professionalization are associated with less radical activity over time.

Our findings indicate that a similar process may be occurring within positions that are largely established in organizations to address movement-initiated changes, as they become widely adopted and therefore more legitimate over time. As the degree of legitimacy of the sustainability management positions in higher education increased, we saw the decreased entry of movement-aligned field founders into these positions, who we consider the "evangelists" of sustainability in this case. Further work is needed to understand the full effect of institutionalization on positions created in organizations to appeal to movement concerns, but this is an area with many opportunities for furthering our understanding of movement and organization dynamics.

Limits and Future Work

As is the case in any study, there are limits both related to the data and analyses strategies that we have used, as well as how much we can generalize from our case. We first acknowledge that there are some drawbacks to utilizing data from *LinkedIn*. The data on this resume website is self-reported. Of course, the concerns of self-reported data apply across numerous types of data,

such as those collected via surveys and interviews, but it is worth noting this potential issue with data from *LinkedIn*, especially as the profiles are public. To remedy concerns of individuals only sharing part of their biographical information, we have only included individuals in our study whose profiles include details on both their work experience and educational background, but it is possible that other data are missing. Even though we have no reason to think that these data would be missing in a systematic fashion that would bias our analyses, it is pertinent to note the shortcomings of this type of data source as online data is becoming increasingly available to researchers.

Another limit to this study is our sample construction. While we intentionally chose a sample of individuals who were involved in field-configuring spaces, which included an online forum in the case of higher education and conferences about sustainability in healthcare, we recognize that these spaces may not be commensurate. In particular, we find a lower overall percentage of movement-aligned field founders in higher education versus healthcare, and it is hard to know whether or not this truly indicates differences in the composition of the field founders across this sector, or if an aspect of this difference could be based on our data sources. In particular, the forum data begins in 1992, so it likely captures a larger percent of movement-oriented individuals who were involved in the field during this very early period. With the hospital data starting in 2001, we may be censoring, or unintentionally missing, individuals who may have been involved in the field prior to 2001 but were no longer active in it. We feel that this concern is somewhat allayed by the fact that the 2001 CleanMed conference was spearheaded by a movement organization, so we are hopeful that movement-oriented individuals were still actively involved in the field in 2001 and had access to this event. However, it is also

possible that the composition of individuals could be affected by the fact that the forum has lower barriers to entry in terms of costs and resources for participation, as compared with the conference. Again, our hope is to look at the trajectories of those who are active movement-oriented field founders with a commitment to the ideals of the movement, so hopefully they would be able to overcome the barriers to attending the conference on sustainability in healthcare, but it is a further concern that is worth recognizing.

A final potential issue with our study and our divergent findings across the higher education and the healthcare sectors is our definition and operationalization of movement-oriented individuals. We consider these individuals to have more than 1 standard deviation above the mean in either years working in non-profit organizations or movement-oriented words in their profiles. The concern with this approach is that there may be "movement-oriented" individuals who do not fit this definition. For example, perhaps those who consider themselves working towards movement goals in hospitals do not necessarily have extensive experience in non-profit organizations or utilize movement-oriented language to describe their work. Perhaps they are more like "tempered radicals" (Meyerson & Scully, 1995). For example, they may adopt language and have held previous positions that are more aligned with the norms and expectations for sustainability in their sector, and in healthcare we see that efficiency norms and goals are more prevalent in the motivations for establishing sustainability. Our definition would not account for this background and orientation. We believe that previous experience in the non-profit sector and movement-oriented language are good indicators based on the data in this study, but future work could improve our understanding of what constitutes being "movement-oriented."

Conclusion

In conclusion, this study helps open up a new area of scholarship on how those who work to establish a field, or field founders, access new positions in organizations created out of their work, and in turn how changes to those positions, such as the degree of legitimacy of the position over time, can affect the level of influence that movements have in a field as it institutionalizes. In particular, by finding that in higher education, where movements directly advocated for the position of sustainability managers, those field founders with a movement-oriented background had a higher likelihood of entry into these positions than others, but that this access diminished as the position became more legitimate over time, we add to the understanding of movement-organization dynamics. However, our findings on the healthcare sector problematize and add nuance to questions of how movements influence organizational change beyond initial commitments. In the healthcare industry, movement-oriented individuals were less common in the composition of field founders and were also less likely to enter new sustainability manager positions. Our qualitative follow-up study posits that these differences may be based on the degree to which the seemingly-similar positions in the two sectors were created out of direct action from movements in higher education versus goals of efficiency, mimetic pressures from peers, or leaders' beliefs in the healthcare sector. Our hope is that this paper is the first in a long line of future scholarship that will work to better understand these ongoing dynamics between movements, fields, and positions created inside organizations to manage movement-initiated areas of work, such as equality and environmental impact.

Concluding remarks on the substantive and normative implications of this work

In addition to the theoretical extensions that come about from this dissertation, which are outlined in the introduction and discussed in detail in each of the chapters, there are also some key substantive implications of these findings which are worth pondering over in closing. As mentioned above, movements are one of the primary sources of change in society, and organizations are the primary sites of contemporary life. If the concerns of movements, which include issues such as inequality, ethics, health and wellbeing, human rights, appropriate use of technology, and environmental impacts, become "managed" inside organizations, then it is pertinent to understand the process of translating social and environmental concerns from movements to organizations that adopt commitments to address them. One of the ways that organizations are responding to these pressures is through the creation of new positions, a primary focus of this dissertation. New positions are being created every day such as "ethics officers" in technology companies who will play switchman for driverless vehicles, "chief wellness officers" who will manage the healthcare rights and responsibilities of workforces, and "philanthropy officers" who decide which social problems are worthy of private funding as public funding for communities simultaneously diminishes.

The process by which sustainability as a field was created by movements and transitioned to new discourses and positions inside organizations is pertinent for our substantive and normative understanding of how to treat and study similar fields and the central role of new occupations within them. As shown in this dissertation, a movement was largely responsible for initiating the field of sustainability in higher education. The movement encompassed student

activists as well as individuals from social movement organizations such as Greenpeace and The National Wildlife Federation. Movement actors promoted a wide range of issues such as politics, nature, and social justice concerns within their discussions of sustainability. Over time, higher education organizations responded to the pressures within this new field in part by creating new sustainability manager positions. Around the same time that these positions were established, the discourse in the field cohered across the majority of actors, but it solidified around issues such as efficiency and metrics and evaluation, rather than the initial issues that movements had promoted, such as nature and politics. Over time, the central coherent discourse also excluded social movement actors, who were increasingly discursively distinct from the other actors in the field. The discursive changes reflect an increased rationalization and de-radicalization away from movement ideals. While this shift is the dominant take-away from Chapter 1, the findings also demonstrate that some movement actors were found to be employing discourses of efficiency and metrics and evaluation strategically with external audiences to gain support for sustainability (Dutton et al., 2001; Howard-Grenville, 2007), and that non-movement actors in this field may benefit over time from the radical flank effect (Haines, 1984), whereby their discourse is seen as less radical (and therefore more "reasonable") compared to social movement actors.

When sustainability manager positions were established in higher education, at first their jurisdiction, or the set of tasks that was under their purview, was unclear. It seems that organizations hired them largely to comply with social movement pressure, but did not clearly outline their task areas. As shown in Chapter 2, individuals in these roles soon organized to create a professional association and negotiated with one another to establish the boundaries of their jurisdiction. Through this process, they started with a broad mandate from a social

movement, but over time they narrowed their task areas through what I term jurisdictional censoring to exclude social justice issues from their work. Again, as I found through the discursive change in this field, many of the concerns that the movement for sustainability had promoted – for example same-sex benefits, paternity leave, and graduate student health insurance – were cut from the sustainability managers' jurisdictions through self-censoring over stated worries about this work being seen as too political or too values-driven. This evidence builds on the substantive finding that this field dropped many of the more radical or politically-sensitive areas at it shifted from movement-led action to formal organizational positions over time. The caveat here is that I also find that sustainability managers maintain an identity with the movement and work behind-the-scenes to engage in "insurgency work" on issues that are aligned with their social movement mandate but that they excluded from their formal jurisdiction, such as divestment from fossil fuels. They conceal this work, but nevertheless attempt to progress it. This finding provides some hope for how these movement-mandated positions can result in more substantive movement-aligned change inside organizations.

Finally, as shown in Chapter 3, I find mixed results on the degree of access that individuals from movement-aligned backgrounds have to newly-created positions in organizations as insider change agents. It seems that in higher education, movement-aligned individuals had greater access than other field founders to these roles, especially when the roles were first created and not yet legitimated. In this sector, those with a movement-aligned background were more likely to enter roles as sustainability managers, although as the roles were legitimated, those without a movement-aligned background were increasingly as likely to become sustainability managers, finally ending up with a statistically indistinguishable

difference in the likelihood of becoming sustainability managers. Again, these findings support the idea that the voice, concerns, and expertise of movements were valued less over time in the field of sustainability as it institutionalized and professionalized. In the healthcare sector, those with movement-aligned backgrounds did not have any greater access to new positions in sustainability management. In fact, they were less likely than those without a movement-aligned background to be hired into these positions. While further work is needed to understand the mechanisms behind why these seemingly similar positions differed across the two sectors, preliminary qualitative work indicates that it may be due to the fact that movements were the primary driver for establishing sustainability manager positions in higher education but not in healthcare. Movement-aligned individuals seem to have not had this same opportunity for access where they did not play as central of a role in creating the mandate for the creation of new positions, even though they were essential players in establishing the field of sustainability in both sectors.

The findings in this dissertation on how movement demands translate to new fields and subsequently to new organizational positions are in line with existing scholarship on the implications of professionalization and institutionalization of movements themselves, in that the creation of formal organizational structures and positions in movements has been shown to lead to decreased radicalization and a diminished use of novel or disruptive tactics (Michels, 1911; Piven & Cloward, 1979; Staggenborg, 1988). However, the picture of sustainability managers that emerges from this study does not fit cleanly with what we may have previously imagined based on existing scholarship. I find that sustainability managers are not trapped in an "iron cage of oligarchy," as Michels (1911) might argue, but neither are they working solely towards

professional expansion with no ongoing connection to the movement that was responsible in large part for creating their positions, as has been theorized for personal managers as they emerged from the demands of the civil rights movement (Dobbin, 2009). Rather the sustainability managers epitomize institutionally-embedded actors, engaging in the strategic use of discourse, retaining an ongoing identification with the movement, and crafting jurisdictional boundaries that enable them to loosely couple front-stage demands for efficiency and evaluation (Colyvas & Powell, 2009) while mobilizing progress towards more contentious issues behind-the-scenes in their "insurgency work."

Tables

Table 1.1: Topics Word Lists

Compliance	Nature	Politics	Metrics & Evaluation	Efficiency	Environmental Movement
air	activities	act	aashe	building	action
chemical	area	action	brown	conservation	alliance
cost	day	american	colleges	consumption	campaign
epa	earth	association	cool_schools	coordinator	challenge
federal	earth_day	budget	data	cost	clean
government	endangered	call	efforts	data	climate
health	event	committee	institutions	efficiency	climate_change
levels	events	congress	program	electricity	coalition
management	forest	government	questions	energy	energy
million	habitat	house	ranking	energy_star	global
pollution	local	legislation	rating	equipment	global_warming
prevention	national	letter	report	management	movement
quality	natural	million	report_card	power	national
regulations	park	national	schools	program	network
safety	parks	president	sei	projects	organizations
standards	public	program	share	reduction	organizing
states	region	senate	stars	saving	peace
u.s	species	support	survey	technology	people
waste	tree	vote	system	usage	world
water	wildlife	washington	year	utility	youth

Table 1.2: Groups in the Sustainability Forum

Group	Total Posts	Percent of Posts	Cumulative Percent of Posts
1) Sustainability managers *	2447	26%	26%
2) Students	1150	12%	38%
3) Recycling officers *	967	10%	48%
4) Faculty	909	10%	57%
5) Non-profit workers	880	9%	67%
6) Facilities management staff *	504	5%	72%
7) Activists	337	4%	75%
8) Business people	324	3%	79%
9) Environment, health and safety officers *	320	3%	82%
10) Energy managers *	270	3%	85%
11) Sustainability committee members *	235	3%	87%
12) Public sector workers	127	1%	89%
13) University Researchers *	123	1%	90%
14) Administrative assistants *	122	1%	91%
15) Business services *	93	1%	92%
16) Lab managers *	87	0.90%	93%
17) K-12 staff	48	0.50%	94%
18) Student affairs *	43	0.50%	94%
19) Librarians *	41	0.40%	95%
20) IT staff *	37	0.40%	95%
21) Administrators *	36	0.40%	95%
22) Researchers (outside the university)	27	0.30%	96%
23) Capital planning staff *	25	0.30%	96%
24) Communications staff *	25	0.30%	96%
25) Dining staff *	23	0.20%	96%
26) Housing *	23	0.20%	97%
27) Environmental policy *	21	0.20%	97%
28) Center directors *	11	0.10%	97%
29) Academic affairs *	5	0.10%	97%
30) Purchasing staff *	1	0.00%	97%
31) Other: unidentifiable	279	3%	100%

* University / college staff

Table 1.3: Robustness Check for Message Author Dispersion

	Number of individual authors (out of 100 posts)	Number of groups authoring (out of top 10 groups)
Top 100 Posts on Efficiency	69	9
Top 100 on Compliance	50	10
Top 100 on Nature	45	8
Top 100 on Politics	44	8
Top 100 on Metrics and Evaluation	62	8
Top 100 on Environmental Movement	53	9

Table 2.1: Chapter 2 Data Sources

Data	Data Type	Data Description	Role of Data
Field notes and memos • Observational data from fifty hours of participant observation with a team of sustainability managers as well as from a conference of sustainability managers in higher education.	Observational	Field notes and memos totaling 105 single-spaced pages	Observations serve to gain a better understanding of the central tensions, meanings, roles, and vocabularies of the field as well as how the issue of divestment is navigated on the ground
AASHE Documents • 2003: List of "Existing Campus Sustainability Assessment Tools for Higher Education" • 2006: HEASC "Call for a System for Assessing & Comparing Progress in Campus Sustainability" • 2006 & 2007: HEASC Newsletters • 2006: Homepage of Original Campus Sustainability Rating System Proposal (CSRS) on AASHE website • 2006: Abstract for AASHE Conference: "Developing a Campus Sustainability Rating System" • 2006: AASHE "Sustainability in Higher Education Assessment Framework" (SHEAF) Instruction Manual and Submission Form • 2007: "CSRS Proposal for a Campus Sustainability Rating System" • 2007: Campus Sustainability Rating System (CSRS) • 2007: "Developing a Campus Sustainability Rating System Workshop at Rocky Mountain Sustainability Summit U. Colorado at Boulder, February 22, 2007 Summary of Meeting • 2007: "Developing a Campus Sustainability Rating System Workshop at Smart & Sustainable Campuses Conference University of Maryland, April 18, 2007 Summary of Meeting • 2007: AASHE Campus Sustainability Perspective Blog "Newsweek and Time Feature Campus Sustainability" • 2007: Ball State University Greening of the Campus Conference Abstract "The Development of the AASHE Campus Sustainability Rating System" • 2007: AASHE STARS Steering Committee Participant List • 2008: STARS Pilot Phase 1 Guide • 2008: STARS Pilot Phase 2 Guide • 2009: STARS Charter Participant List	Archival	Documents on the founding of AASHE and the development of STARS.	Archives on AASHE provide background on the founding and coordinating of AASHE and the creation of STARS
STARS Drafts & Reviewers' Comments • 2007: "AASHE STARS for Colleges and Universities Version 0.4" (21 pages) • 2007: "Feedback on STARS 0.4" (92 pages) • 2007: "Survey Responses from Strategic Advisory Committee and Technical Advisory Committee on STARS 0.4" (49 pages) • 2007-2008 STARS Pilot Conference Call Agendas and Notes (54 pages) • 2008: "STARS for Colleges and Universities Version 0.5" (118 pages) • 2008: "Feedback on STARS 0.5" (139 pages) • 2009: STARS Pilot Results (348 pages) • 2009: "STARS for Colleges and Universities Version 1.0" (267 pages)	Archival	1,347 reviewers' comments on drafts of STARS Drafts of STARS with 122 proposed indicators organized into categories	Drafts of STARS and Reviewers' comments on STARS provide evidence for the development of the occupational group's jurisdiction
Semi-structured interviews with sustainability managers in higher education	Interviews	29 semi-structured interviews averaging 1 hour each	Interviews provide evidence on confronting a dual mandate and identity as well as how the issue of divestment is navigated on the ground

Table 2.2: Interview Participant Characteristics

Position of Interviewee by Type of Institution	Institutional Control	Student Population[34]	Institutional Region
Research Universities			
Former Vice President Sustainability	Public	68,000	United States: Western
Coordinator, Sustainability Initiatives	Public	64,000	United States: Southern
Communications Director, Office of Sustainability	Public	43,000	United States: Midwestern
Chief Sustainability Officer	Public	39,000	Canada: Western
Sustainability Program Manager	Private	35,000	United States: Western
Director of the Environmental Center	Public	33,000	United States: Western
Sustainability Director	Private	33,000	United States: Eastern
Campus Energy Coordinator	Public	33,000	United States: Western
Associate Chancellor for Sustainability	Public	29,000	United States: Midwestern
Assistant to the Provost for Sustainability Initiatives	Public	23,000	United States: Southern
Director, Campus Sustainability Office	Private	22,000	United States: Eastern
Director of Council on the Environment	Public	22,000	United States: Midwestern
Director, Institute for Environmental Sustainability	Private	16,000	United States: Midwestern
Director of Sustainability Initiatives	Private	15,000	United States: Southern
Manager of Sustainability Programs	Private	6,000	United States: Eastern
Director of Sustainability	Private	21,000	United States: Midwestern
Director of the Office of Sustainability	Private	20,000	United States: Midwestern
Master's Colleges			
Director of Sustainability	Public	15,000	United States: Western
Sustainability Manager	Public	10,000	United States: Western
Assistant Director for Campus Sustainability & Residential Initiatives	Public	7,000	United States: Eastern
Manager, Office of Sustainability	Private	6,000	United States: Eastern
Chairman, Sustainability Committee	Private	2,000	United States: Southern
Baccalaureate Colleges, Arts & Sciences			
Global Food Studies Coordinator	Private	3,000	United States: Eastern
Sustainability Manager	Private	2,000	United States: Midwestern
Director, Office of Sustainability	Public	2,000	United States: Midwestern
Director of Sustainability	Private	1,000	United States: Southern
Community Colleges			
Sustainability Data Assessment & Reporting Officer	Public	21,000	Canada: Eastern
Sustainability Manager	Public	17,000	United States: Midwestern
Sustainability Coordinator	Public	15,000	United States: Midwestern

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[34] Full-time student population, rounded to the nearest 1,000 for participant anonymity

Table 2.3: Outcomes of STARS Indicators by Task Area

Final Outcome	Operations		Social Responsibility & Community Engagement		Governance and Finance		Education and Research	
	Count of Final Outcome	Percent of final outcome	Count of Final Outcome	Percent of final outcome	Count of Final Outcome	Percent of final outcome	Count of Final Outcome	Percent of final outcome
Eliminated	7	19%	20	63%	4	17%	8	26%
Relatively unchanged	21	58%	6	19%	16	70%	17	55%
Strengthened	2	6%	0	0%	0	0%	2	6%
Weakened	6	17%	6	19%	3	13%	4	13%
Total Number of Indicators Proposed	36		32		23		31	

Table 3.1: Correlation Matrix for Sustainability Manager in Healthcare

	Sust. Mgr Healthcare	Total Sust. Mgr Sector(-1 Y)	Movement Background	Age	Sex	Undergrad	Graduate Degree	PhD	Individuals' Total Positions to Date	Total Words in Profile	Time After 2000	Architecture	Business	Education	Engineering	Environmental Studies	Hard Science	Humanities	Law	Medicine	Other	Social Science	Unclear
Sustainability Manager in Healthcare	1.00																						
Total Sust. Managers in Sector(-1 Y)	-0.01	1.00																					
Movement Background	-0.03	0.20	1.00																				
Age	-0.04	0.57	0.29	1.00																			
Sex	0.02	0.07	0.01	-0.15	1.00																		
Undergrad	0.01	-0.01	-0.00	-0.05	-0.09	1.00																	
Graduate Degree	-0.01	0.02	0.01	0.05	0.06	-0.87	1.00																
PhD	0.00	-0.03	-0.02	-0.01	0.05	-0.19	-0.32	1.00															
Individuals' Total Positions to Date	-0.03	0.42	0.29	0.44	-0.08	0.00	-0.01	0.01	1.00														
Total Words in Profile	-0.01	0.27	0.40	0.32	-0.08	-0.02	0.03	-0.03	0.37	1.00													
Time After 2000	0.02	0.80	0.16	0.45	0.08	-0.01	0.02	-0.02	0.32	0.21	1.00												
Architecture	0.01	0.04	-0.02	-0.02	0.01	-0.05	0.04	0.01	-0.02	-0.07	0.05	1.00											
Business	-0.01	-0.03	-0.08	0.01	-0.18	-0.06	0.15	-0.18	0.07	0.14	-0.04	-0.06	1.00										
Education	0.00	-0.01	0.06	0.04	-0.04	-0.08	0.04	0.08	-0.00	-0.03	-0.01	-0.03	-0.08	1.00									
Engineering	0.01	-0.05	0.02	0.06	-0.20	-0.05	0.04	0.02	-0.01	0.03	-0.04	-0.08	-0.07	-0.04	1.00								
Environmental Studies	0.05	-0.02	0.08	-0.09	0.09	-0.03	0.05	-0.04	-0.02	-0.00	-0.00	-0.01	-0.14	-0.02	-0.08	1.00							
Hard Science	-0.00	-0.02	0.03	0.03	0.05	-0.08	0.07	0.02	-0.02	-0.02	-0.02	-0.03	-0.17	0.00	-0.10	0.05	1.00						
Humanities	0.00	0.00	0.06	-0.00	0.05	-0.04	0.04	0.00	0.08	-0.06	0.01	0.05	-0.14	0.06	-0.07	-0.07	-0.11	1.00					
Law	-0.01	0.01	0.00	0.04	-0.07	-0.07	0.06	0.02	-0.04	-0.04	0.01	-0.04	-0.07	-0.02	-0.04	-0.05	-0.07	0.15	1.00				
Medicine	-0.00	0.05	-0.06	-0.00	0.25	-0.30	0.22	0.14	-0.04	-0.04	0.04	-0.15	-0.28	0.00	-0.19	-0.13	0.01	-0.13	-0.08	1.00			
Other	0.01	0.00	-0.02	-0.02	0.05	-0.03	0.04	-0.01	-0.02	0.03	0.01	-0.01	-0.04	-0.01	-0.02	-0.01	0.12	-0.01	-0.01	-0.04	1.00		
Social Science	0.00	0.01	0.07	-0.03	0.06	-0.09	0.10	-0.02	0.06	0.05	0.01	-0.09	-0.06	-0.06	-0.15	-0.05	-0.18	-0.04	-0.07	-0.12	-0.02	1.00	
Unclear	-0.01	-0.01	-0.03	0.02	-0.02	-0.08	0.02	0.13	-0.03	-0.10	-0.01	-0.06	-0.13	-0.06	-0.02	-0.12	-0.14	-0.09	0.01	-0.07	-0.02	-0.07	1.00

Table 3.2: Descriptive Statistics - Healthcare

	mean	sd	min	max	sum
Sustainability Manager in Healthcare	0.01	0.10	0	1	107
Total Sust. Managers in Sector(-1 Y)	64.04	48.46	0	134	710,370
Movement Background	0.12	0.33	0	1	1,371
Age	40.56	11.27	14	77	449,909
Sex	0.47	0.50	0	1	5,249
Undergrad	0.60	0.49	0	1	6,633
Graduate Degree	0.34	0.47	0	1	3,753
PhD	0.06	0.24	0	1	707
Individuals' Total Positions to Date	3.13	3.05	0	22	34,668
Total Words in Profile	456.84	864.14	0	7001	5,067,772
Architecture	0.06	0.23	0	1	644
Business	0.33	0.47	0	1	3,676
Education	0.01	0.12	0	1	156
Engineering	0.10	0.30	0	1	1,148
Environmental Studies	0.06	0.24	0	1	695
Hard Science	0.14	0.35	0	1	1,604
Humanities	0.07	0.26	0	1	786
Law	0.03	0.17	0	1	344
Medicine	0.33	0.47	0	1	3,657
Other	0.00	0.05	0	1	28
Social Science	0.18	0.39	0	1	2,027
Unclear	0.18	0.39	0	1	2,045

Table 3.3: Correlation Matrix for Sustainability Manager in Higher Education

	Sust. Mgr. Higher Ed	Total Sust. Mgr. Sector (-1 Y)	Movement Background	Age	Sex	highest_ed_undg	Graduate Degree	PhD	Individuals' Total Positions to Date	Total Words in Profile	Time Period Control - After 2000	Architecture	Business	Education	Engineering	Environmental Studies	Hard Science	Humanities	Law	Medicine	Other	Social Science	Unclear
Sustainability Manager in Higher Ed	1.00																						
Total Sust. Managers in Sector(-1 Y)	-0.01	1.00																					
Movement Background	-0.03	0.23	1.00																				
Age	-0.09	0.39	0.32	1.00																			
Sex	0.06	0.03	-0.03	-0.16	1.00																		
highest_ed_undg	-0.03	0.02	0.02	-0.07	-0.06	1.00																	
Graduate Degree	0.04	0.00	0.01	-0.05	0.11	-0.68	1.00																
PhD	-0.01	-0.02	-0.03	0.15	-0.07	-0.30	-0.49	1.00															
Individuals' Total Positions to Date	-0.08	0.45	0.36	0.54	-0.05	0.03	0.01	-0.04	1.00														
Total Words in Profile	-0.04	0.23	0.38	0.42	-0.06	-0.02	0.04	-0.03	0.32	1.00													
Time Period Control - After 2000	0.07	0.70	0.15	0.26	0.06	-0.02	0.03	-0.02	0.31	0.16	1.00												
Architecture	0.02	-0.02	0.02	-0.01	0.03	-0.08	0.06	0.02	0.01	0.06	-0.02	1.00											
Business	-0.01	-0.01	-0.06	-0.03	-0.01	-0.03	0.13	-0.13	-0.00	-0.00	-0.00	-0.10	1.00										
Education	-0.01	0.01	-0.01	0.03	0.03	-0.12	0.11	0.00	0.06	0.00	0.01	-0.07	-0.09	1.00									
Engineering	-0.01	-0.03	0.06	0.05	-0.13	-0.01	-0.03	0.05	0.07	0.06	-0.03	0.01	-0.09	-0.02	1.00								
Environmental Studies	0.06	0.04	-0.01	-0.13	0.11	-0.13	0.11	0.01	-0.06	-0.04	0.05	-0.09	-0.15	-0.11	-0.10	1.00							
Hard Science	0.01	-0.03	-0.06	0.05	-0.05	-0.14	-0.02	0.19	-0.05	-0.09	-0.02	-0.10	-0.10	-0.06	-0.13	-0.06	1.00						
Humanities	-0.03	0.01	0.03	0.04	0.02	-0.07	0.11	-0.07	0.02	0.08	0.01	-0.04	-0.02	-0.08	-0.15	-0.21	-0.17	1.00					
Law	0.01	0.03	0.04	-0.03	-0.02	-0.06	0.10	-0.06	-0.02	-0.05	0.02	-0.04	-0.07	-0.04	-0.05	-0.07	-0.07	0.02	1.00				
Medicine	-0.02	0.01	-0.09	0.02	0.03	-0.11	0.10	0.00	0.05	0.02	-0.01	-0.06	-0.10	-0.06	-0.00	-0.03	-0.05	-0.06	-0.04	1.00			
Other	0.00	0.01	0.02	0.00	-0.04	0.04	-0.02	-0.03	0.01	0.01	0.00	-0.02	-0.03	-0.02	-0.02	-0.05	-0.00	0.01	-0.01	-0.02	1.00		
Social Science	-0.00	0.00	0.06	0.01	0.04	-0.14	0.12	0.02	0.05	-0.00	0.02	-0.07	-0.11	0.01	-0.15	-0.20	-0.13	-0.12	0.02	-0.04	-0.04	1.00	
Unclear	-0.01	-0.01	0.00	0.04	0.04	-0.07	-0.07	0.17	-0.05	-0.03	-0.01	0.02	-0.05	-0.00	-0.04	-0.12	-0.03	-0.18	0.03	0.02	-0.03	-0.12	1.00

Table 3.4: Descriptive Statistics – Higher Education

	mean	sd	min	max	sum
Sustainability Manager in Higher Education	0.03	0.16	0	1	340
Total Sust. Managers in Sector(-1 Y)	173.89	144.30	0	368	2,136,527
Movement Background	0.20	0.40	0	1	2,446
Age	37.23	11.02	13	77	457,474
Sex	0.43	0.50	0	1	5,292
Undergrad	0.30	0.46	0	1	3,689
Graduate Degree	0.52	0.50	0	1	6,418
PhD	0.18	0.38	0	1	2,180
Individuals' Total Positions to Date	3.46	3.31	0	29	42,465
Total Words in Profile	466.93	819.75	0	8928	5,737,129
Architecture	0.06	0.23	0	1	692
Business	0.17	0.37	0	1	2,037
Education	0.07	0.25	0	1	829
Engineering	0.10	0.30	0	1	1,247
Environmental Studies	0.30	0.46	0	1	3,667
Hard Science	0.18	0.38	0	1	2,159
Humanities	0.21	0.41	0	1	2,556
Law	0.02	0.15	0	1	286
Medicine	0.05	0.22	0	1	631
Other	0.00	0.07	0	1	59
Social Science	0.23	0.42	0	1	2,871
Unclear	0.16	0.37	0	1	1,992

Table 3.5: Models for Sustainability Manager in Healthcare

	(1) Sustainability Manager in Healthcare	(2) Sustainability Manager in Healthcare	(3) Sustainability Manager in Healthcare	(4) Sustainability Manager in Healthcare
Total Field Founders who have become Sustainability Managers in Sector(-1 Y)		0.0213** (0.00661)	0.0175** (0.00571)	0.0160** (0.00580)
Movement Background			-1.870* (0.748)	-3.055 (2.588)
Interaction: Movement Background x Total Sust. Managers in Sector(-1 Y)				0.0113 (0.0213)
Controls				
Age	0.0156 (0.0165)	-0.0174 (0.0148)	-0.0147 (0.0166)	-0.0149 (0.0169)
Sex	0.103 (0.377)	-0.00841 (0.320)	0.0256 (0.346)	0.0147 (0.351)
Graduate Degree	-1.902* (0.779)	-1.906*** (0.431)	-1.988*** (0.566)	-1.927** (0.597)
PhD	-1.228 (0.903)	-1.026 (0.645)	-1.241 (0.743)	-1.197 (0.770)
Individuals' Total Positions to Date	-0.0979 (0.0627)	-0.138* (0.0541)	-0.138* (0.0625)	-0.142* (0.0652)
Time Period Control - After 2000	2.201*** (0.357)	2.099*** (0.435)	1.992*** (0.412)	2.012*** (0.418)
Total Words in Profile (Y-1)		0.000206 (0.000147)	0.000437** (0.000168)	0.000415* (0.000171)
Degree Area Controls				
Architecture	1.832 (0.974)	1.881** (0.661)	1.946* (0.799)	1.895* (0.831)
Business	1.871* (0.855)	1.954*** (0.506)	1.910** (0.656)	1.871** (0.689)
Education	2.165 (1.315)	2.238* (1.065)	2.526* (1.222)	2.437 (1.249)
Engineering	2.254* (0.928)	2.463*** (0.639)	2.481*** (0.745)	2.432** (0.770)
Environmental Studies	4.849*** (0.936)	5.398*** (0.700)	5.327*** (0.771)	5.217*** (0.779)
Hard Science	1.455 (0.898)	1.519** (0.555)	1.640* (0.693)	1.602* (0.723)
Humanities	2.053* (1.009)	2.256*** (0.685)	2.318** (0.807)	2.260** (0.835)
Law	-2.077 (5.909)	-1.081 (2.871)	-1.227 (.)	-1.208 (.)
Medicine	2.047* (0.912)	2.090*** (0.537)	2.140** (0.711)	2.089** (0.747)
Social Science	1.771* (0.867)	1.722** (0.529)	1.830** (0.639)	1.778** (0.670)
Unclear	1.258 (0.789)	1.302** (0.500)	1.403* (0.615)	1.374* (0.641)
Constant	-11.36*** (1.026)	-13.08*** (1.235)	-11.97*** (0.953)	-11.63*** (0.916)
N	11093	11093	11093	11093
Groups (Total Individuals)	510	510	510	510

Standard errors in parentheses
$^{*} p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

Table 3.6: Models for Sustainability Manager in Higher Education

	(5) Sustainability Manager in Higher Ed	(6) Sustainability Manager in Higher Ed	(7) Sustainability Manager in Higher Ed	(8) Sustainability Manager in Higher Ed
Total Field Founders who have become Sustainability Managers in Sector(-1 Y)		0.00543** (0.00182)	0.00538** (0.00175)	0.00727*** (0.00194)
Movement Background			0.720** (0.276)	1.798*** (0.517)
Interaction: Movement Background x Total Sust. Managers in Sector(-1 Y)				-0.00457** (0.00173)
Controls				
Age	-0.0244 (0.0133)	-0.0336* (0.0153)	-0.0358* (0.0155)	-0.0389* (0.0156)
Sex	0.679** (0.223)	0.932*** (0.276)	0.921*** (0.274)	1.013*** (0.277)
Graduate Degree	0.761* (0.299)	1.120** (0.394)	1.126** (0.393)	1.269** (0.400)
PhD	0.431 (0.361)	0.663 (0.470)	0.693 (0.471)	0.792 (0.479)
Individuals' Total Positions to Date	-0.186** (0.0601)	-0.205*** (0.0527)	-0.230*** (0.0549)	-0.218*** (0.0537)
Time Period - After 2000	2.178*** (0.225)	2.196*** (0.277)	2.221*** (0.276)	2.200*** (0.285)
Total Words in Profile (Y-1)		0.000110 (0.000162)	0.00000270 (0.000171)	0.0000378 (0.000167)
Degree Area Controls				
Architecture	0.546 (0.402)	0.772 (0.536)	0.756 (0.541)	0.838 (0.558)
Business	-0.344 (0.323)	-0.426 (0.413)	-0.406 (0.415)	-0.450 (0.422)
Education	-0.404 (0.445)	-0.603 (0.564)	-0.587 (0.561)	-0.681 (0.563)
Engineering	-0.351 (0.441)	-0.448 (0.565)	-0.459 (0.565)	-0.531 (0.567)
Environmental Studies	0.291 (0.312)	0.355 (0.395)	0.332 (0.397)	0.350 (0.403)
Hard Science	-0.0788 (0.320)	-0.0694 (0.411)	-0.0743 (0.413)	-0.103 (0.420)
Humanities	-0.966** (0.370)	-1.350** (0.461)	-1.383** (0.460)	-1.535*** (0.462)
Law	0.0107 (0.615)	-0.175 (0.778)	-0.225 (0.782)	-0.293 (0.781)
Medicine	-1.187* (0.567)	-1.726* (0.733)	-1.670* (0.732)	-1.850* (0.737)
Social Science	-0.373 (0.315)	-0.499 (0.403)	-0.528 (0.405)	-0.582 (0.410)
Unclear	-0.549 (0.338)	-0.669 (0.432)	-0.707 (0.434)	-0.793 (0.440)
Constant	-4.830*** (0.745)	-6.223*** (1.020)	-6.162*** (0.995)	-6.722*** (1.040)
N	12287	12287	12287	12287
Groups (Total Individuals)	800	800	800	800

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
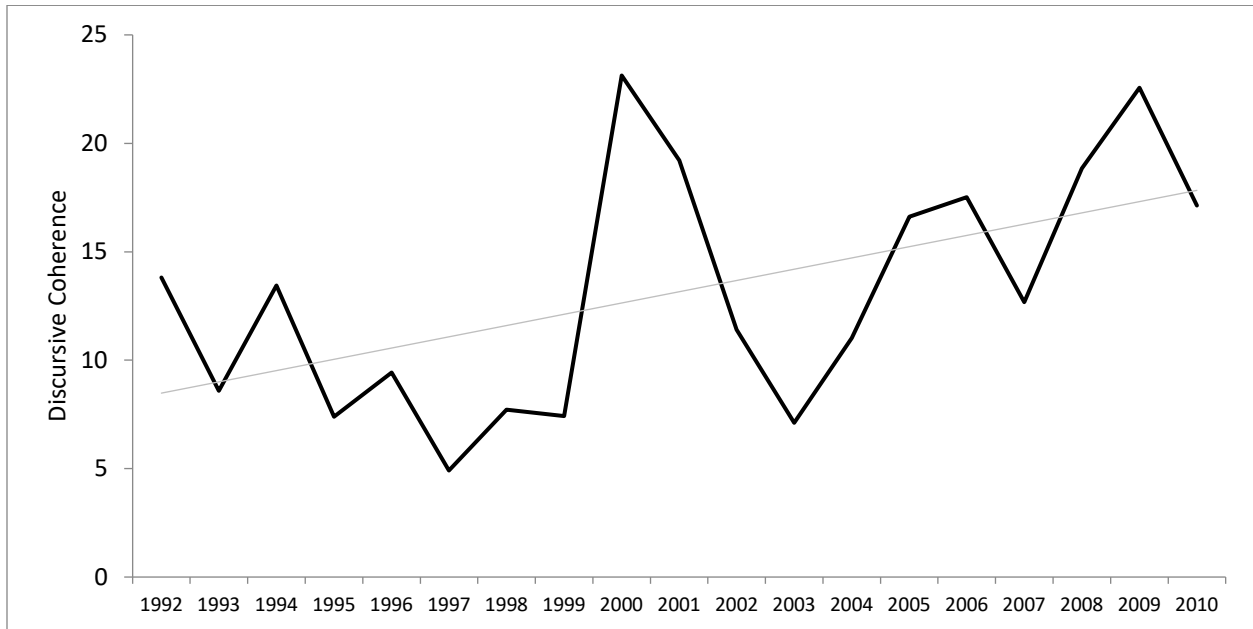
Figures

Figure 1.1: Discursive Coherence (With Linear Trend Line)
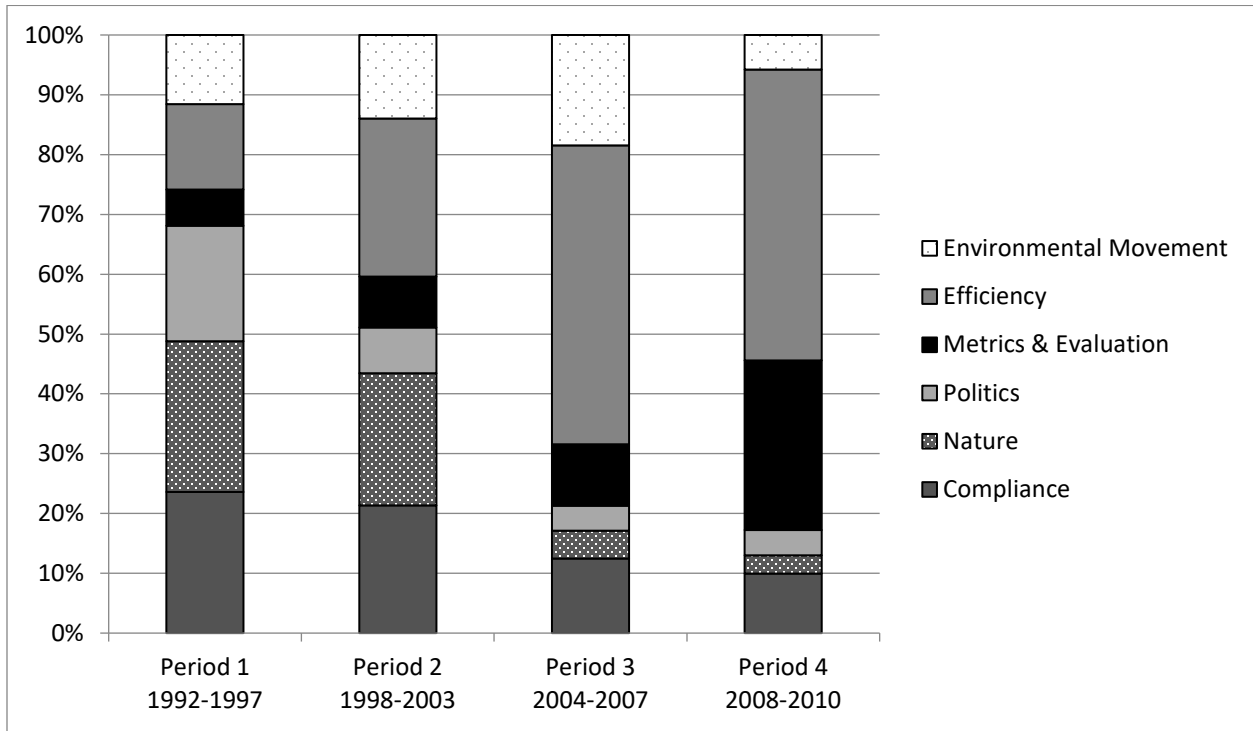
Figure 1.2: Composition of Issues in Forum over Time

Figure 1.3: Heat Map of Absolute Distance by Group by Period

	Distance to Other Groups			
	Period 1 1992-1997	Period 2 1998-2003	Period 3 2004-2007	Period 4 2008-2010
Activist	25%	14%	22%	13%
Business Person	7%	7%	6%	3%
Environmental, Health, & Safety (EHS)	8%	11%	5%	3%
Energy Manager	8%	11%	8%	5%
Facilities Management	4%	8%	10%	9%
Faculty	4%	8%	4%	3%
Non-profit Worker	3%	5%	6%	3%
Recycling Officer	5%	3%	4%	3%
Student	3%	6%	3%	4%
Sustainability Manager	7%	4%	4%	4%
Average by Period	**7%**	**8%**	**7%**	**5%**

Figure 1.4: Graphs of Raw Distance by Group by Period (**p<.05)

Figure 1.4 Continued

Period 3, 2004-2007
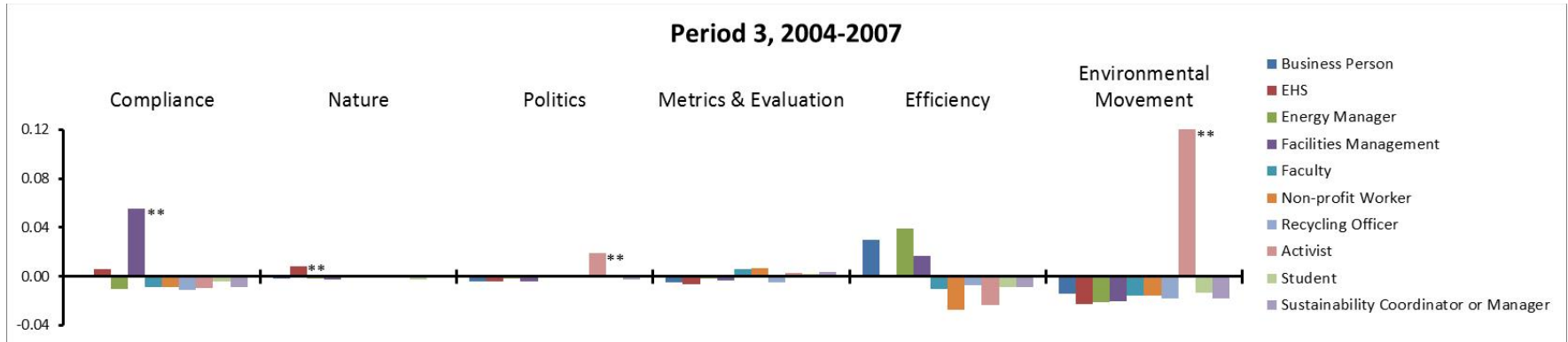
Period 4, 2008-2010

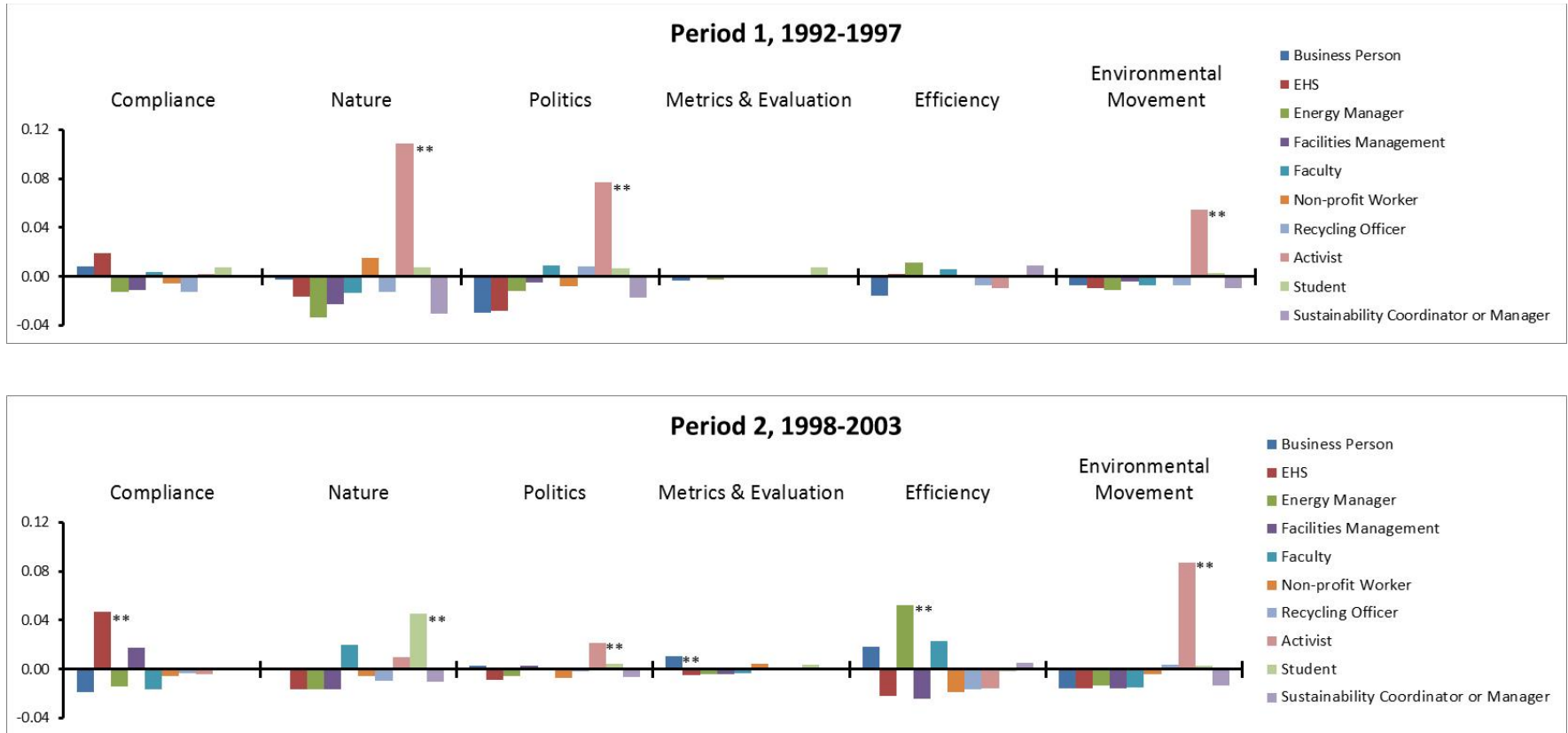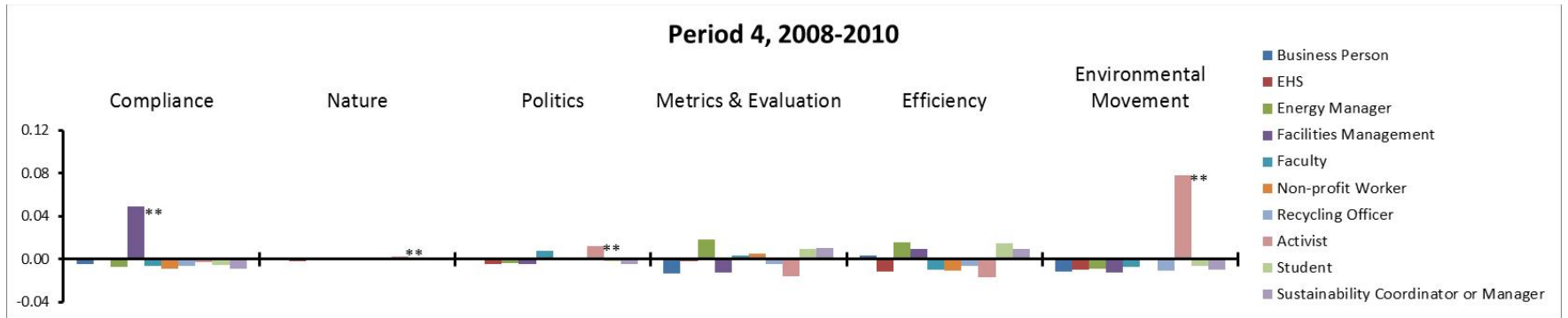**Figure 1.5: Response Rate and Number of Responses by Coherent and Non-Coherent Issues**

Response Rate to "First Posts"
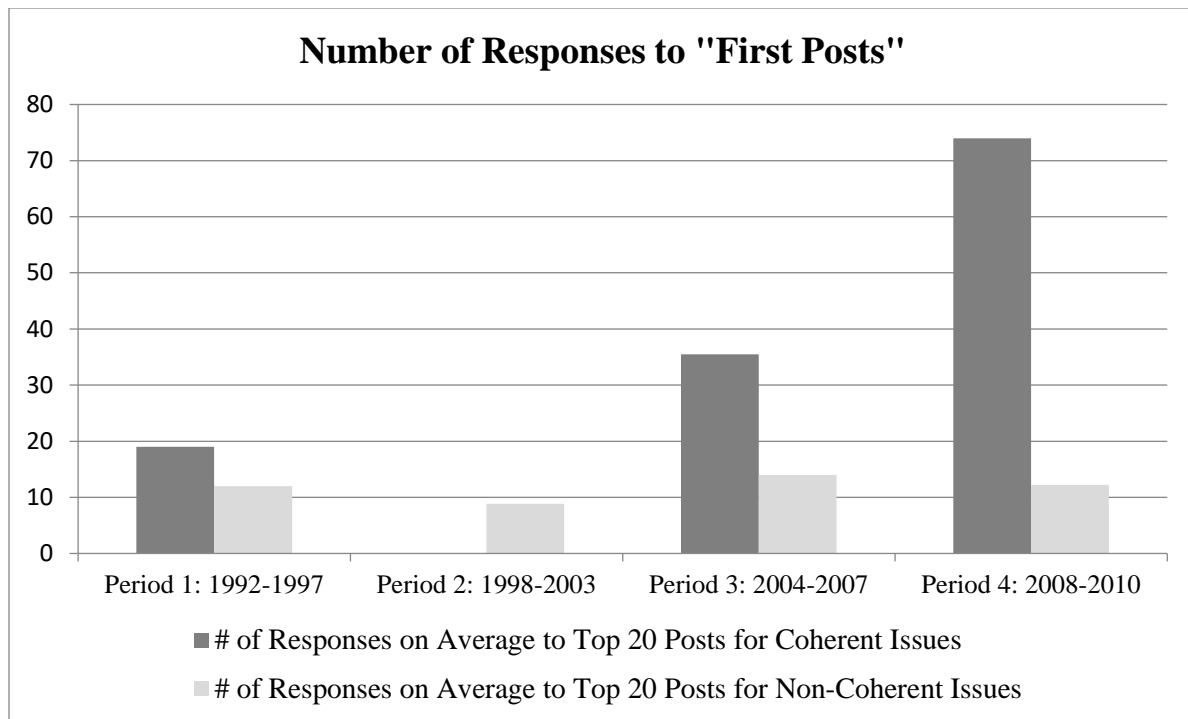

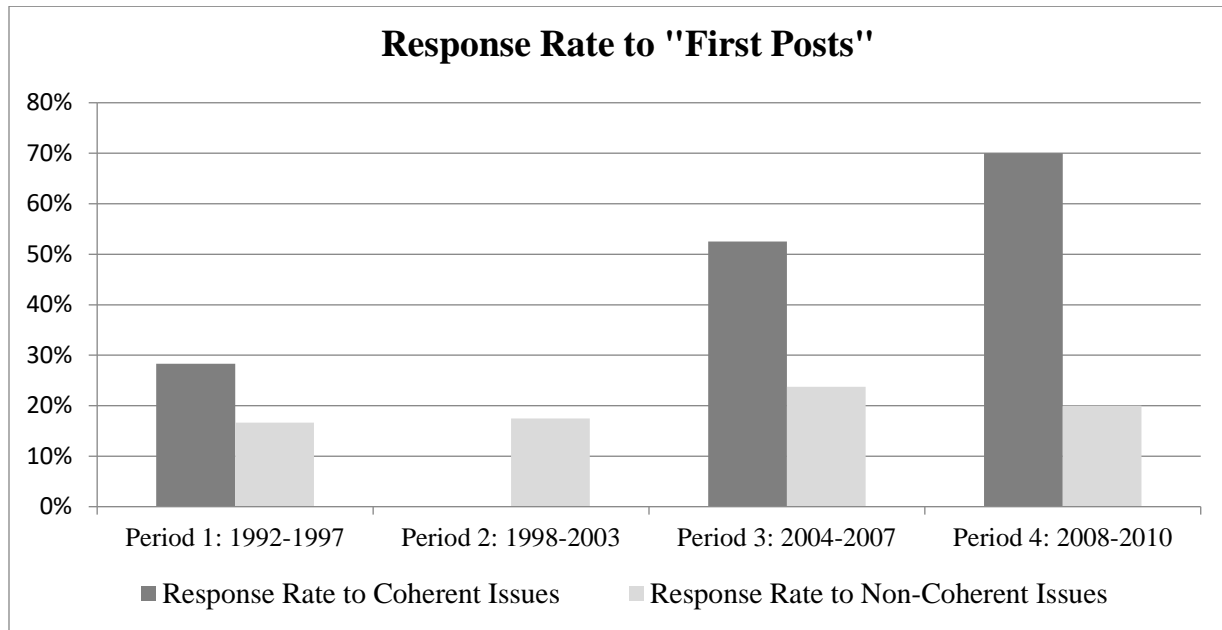
Number of Responses to "First Posts"

Figure 1.6: Heat Map of Period 3 and Period 4 Discursive Distance By Wider Group of Actors

	Period 3: 2004 - 2007 Discursive Distance	Period 4: 2008 - 2010 Discursive Distance
Activists	20%	13%
Administrative Assistants*	7%	10%
Administration Members*	7%	7%
Business Person	5%	3%
Business Services Staff*	4%	5%
Capital Planning Staff*	5%	5%
Dining Services Staff*	11%	6%
Energy Manager	6%	4%
Environmental, Health, and Safety Officers	4%	2%
Facilities Management	10%	8%
Faculty	2%	2%
Housing Staff*	6%	6%
Information Technology Personnel*	10%	5%
Lab Managers*	2%	3%
Non-profit Workers	3%	2%
Public Sector Workers*	5%	6%
Researchers (inside university setting)*	5%	4%
Researchers (outside university setting)*	6%	5%
Recycling Manager	2%	2%
Student	0%	3%
Student Affairs Staff*	6%	6%
Sustainability Manager	1%	3%

*Groups with fewer posts than Activists

Figure 2.1: Timeline of the Development of STARS

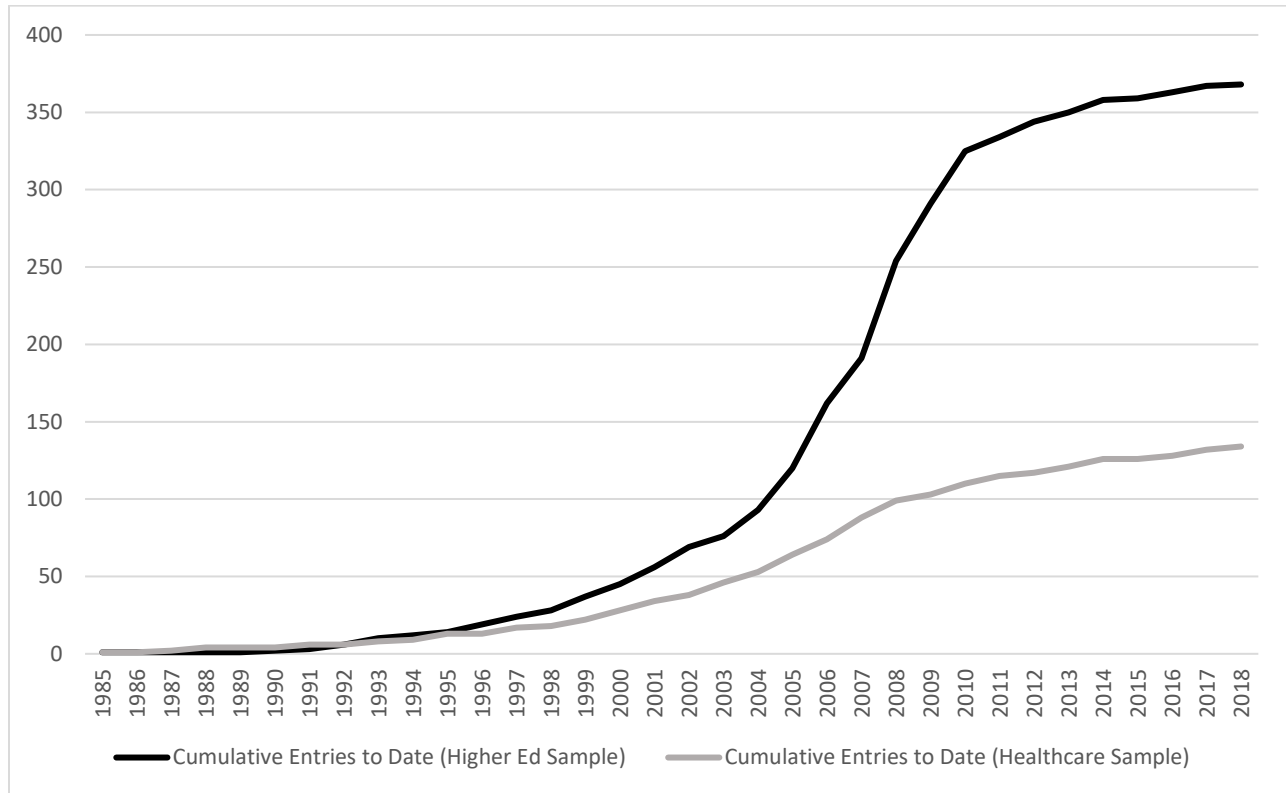|	2007	2008	2009
Versions	STARS 0.4	STARS 0.5	STARS 1.0
Feedback Mechanisms		STARS 0.4 Comment Submission	STARS 0.5 Comment Submission
		Survey of STARS Technical and Strategic Advisory Committee	
		Conference Calls	

Figure 3.1: Cumulative Entries into Sustainability Manager Positions across Sectors

Figure 3.2: Marginal Effect of Number of Previous Sustainability Managers in Higher Education on Probability of Becoming a Sustainability Manager with and without a Movement-Aligned Background
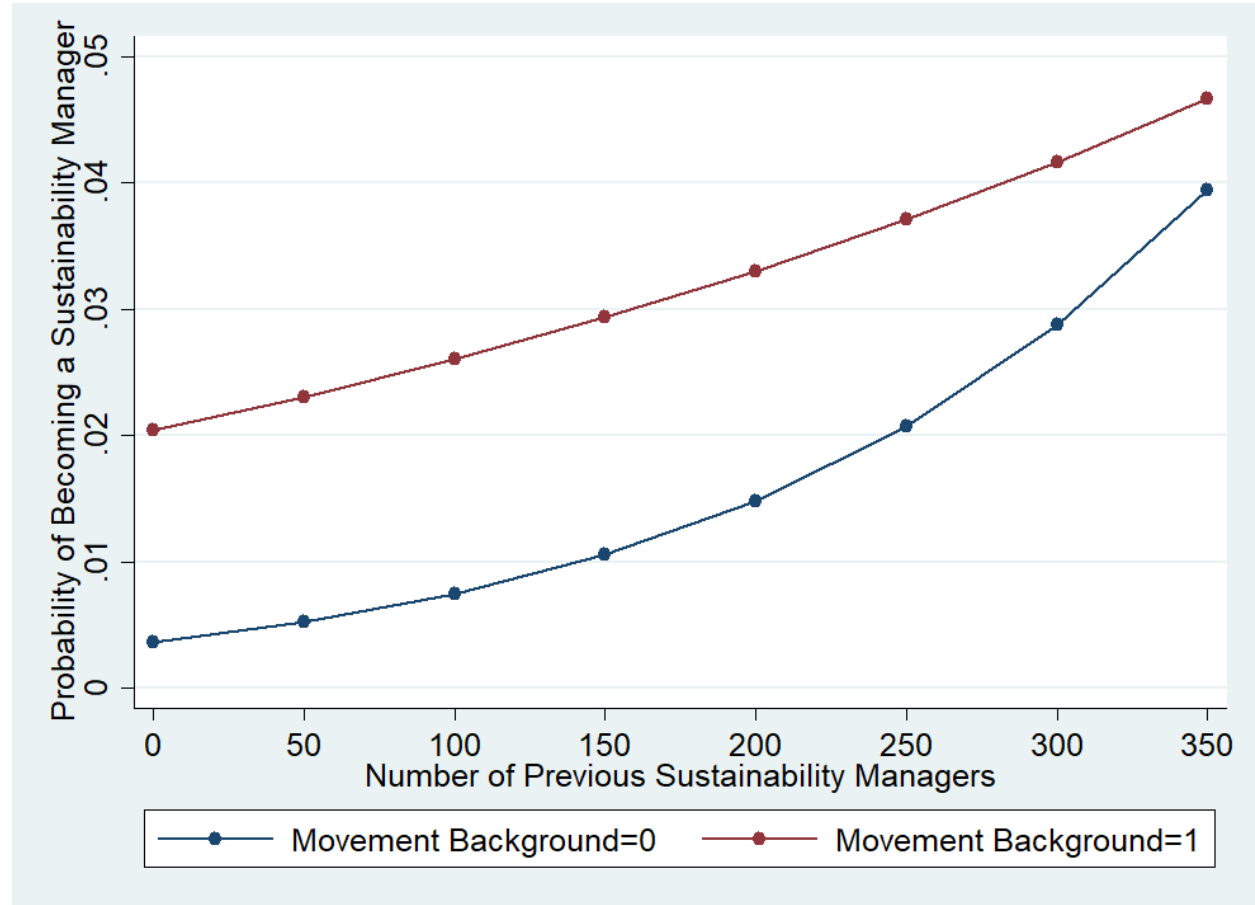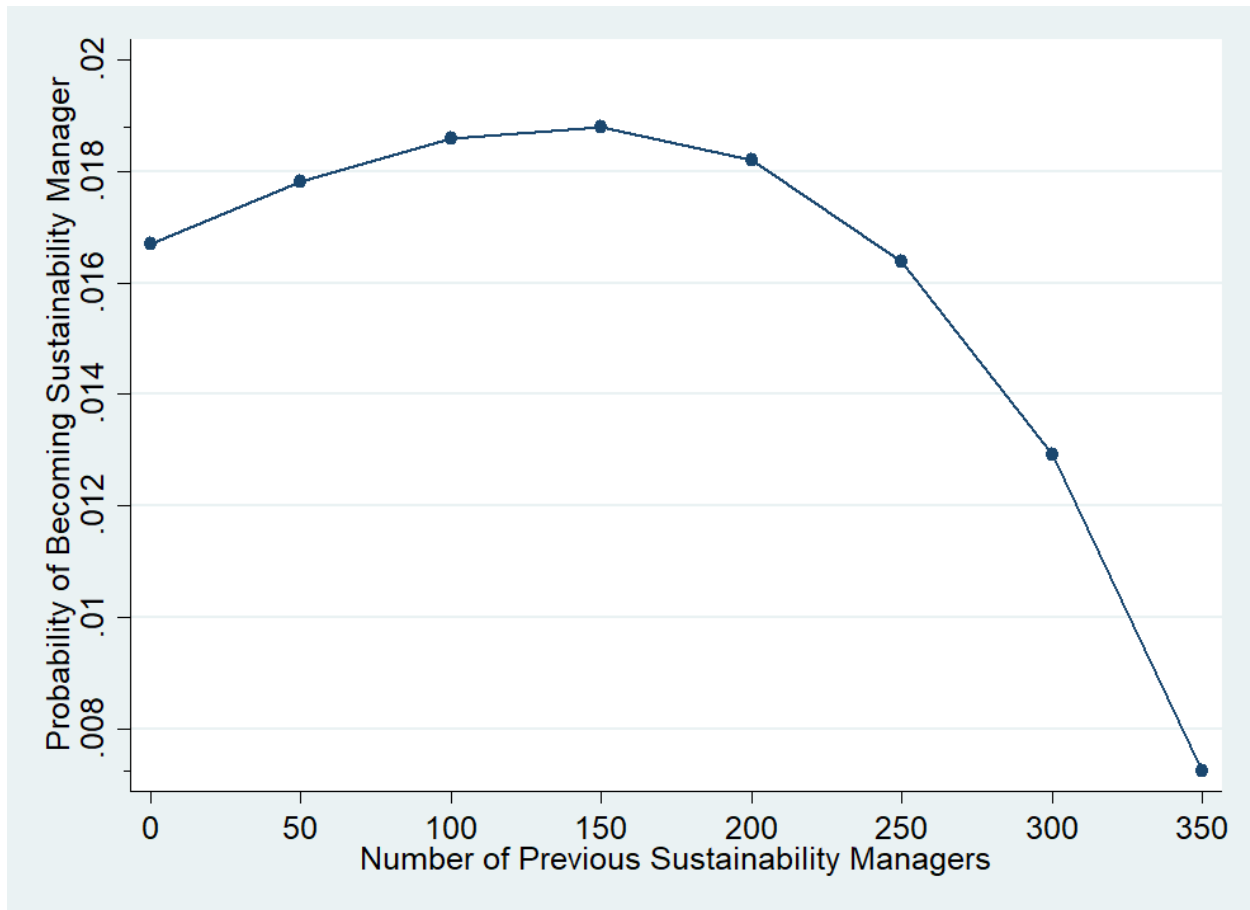
Figure 3.3: Average Marginal Effect of Number of Previous Sustainability Managers on the Probability of Those with a Movement Background Becoming a Sustainability Manager

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Appendix: Chapter 2 - Tracing the Outcome of Indicators in STARS

Social Indicators Proposed in Drafts of STARS

Section Title	Original Credit Title	Final outcome
Affordability and Social Mobility	SC Credit 26: Social Mobility – Trend	eliminated
Community Service	SC Credit 1: Community Service Coordinator	eliminated
Community Service	SC Credit 3: Community Service in Job Descriptions	eliminated
Community Service	SC Credit 4: Work Study and Community Service	eliminated
Community Service	SC Credit 5: Work Study and Community Service – Trend	eliminated
Diversity	SC Credit 7: Diversity officer	eliminated
Diversity	SC Credit 8: Admissions Diversity	eliminated
Diversity	SC Credit 10: Faculty Racial and Ethnic Diversity - Trend	eliminated
Diversity	SC Credit 11: Faculty Gender Diversity - Trend	eliminated
Diversity	SC Credit 12: Administrator Racial and Ethnic Diversity - Trend	eliminated
Diversity	SC Credit 13: Administrator Gender Diversity - Trend	eliminated
Diversity	SC Credit 14: Departmental Diversity Plans	eliminated
Diversity	SC Credit 15: Non-Discrimination Statement	eliminated
Diversity	SC Credit 16: Benefits for Domestic Partners	eliminated
Fair Labor Practices	SC Credit 17: Fair Labor Code of Conduct	eliminated
Fair Labor Practices	SC Credit 21: Living Wage - Contractors	eliminated
Fair Labor Practices	SC Credit 22: Healthcare Benefits	eliminated
Fair Labor Practices	SC Credit 23: Graduate Student Employee Benefits	eliminated
Fair Labor Practices	SC Credit 24: Under-represented Groups Pay Equity – Equal Pay for Equal Work	eliminated
Human Resources	AF Credit 30: Parental Leave	eliminated
Community Service	SC Credit 2: Student Community Service	relatively unchanged
Community Service	AF Credit 15: Student Hours Contributed in Community Service	relatively unchanged
Diversity	PAE Credit 7: Measuring Campus Diversity Culture	relatively unchanged
Diversity	AF Credit 25: Support Programs for Under-represented Ph.D. Candidates	relatively unchanged
Fair Labor Practices	SC Credit 19: Designated Suppliers Program	relatively unchanged
Human Resources	PAE Credit 13: Staff Professional Development in Sustainability	relatively unchanged
Affordability and Social Mobility	SC Credit 27: Affordability – Trend	weakened
Diversity	SC Credit 6: Diversity committee	weakened
Diversity	SC Credit 9: Under-represented Groups Graduation Rate - Trend	weakened
Fair Labor Practices	SC Credit 25: Workforce Well-being	weakened
Fair Labor Practices	SC Credit 18: Independent Monitoring of Logo Apparel	weakened
Fair Labor Practices	SC Credit 20: Living Wage - Staff	weakened

Operations Indicators Proposed in Drafts of STARS

Section Title	Original Credit Description	Final outcome
Materials and Recycling	OP Credit 19: Paper Consumption – Trend	eliminated
Prerequisite	OP Prerequisite 2: Environmental, Health and Safety Regulatory Compliance	eliminated
Purchasing	OP Credit 5: Environmentally Preferable Purchasing.	eliminated
Purchasing	OP Credit 6: Environmentally Preferable Purchasing – Trend	eliminated
Purchasing	OP Credit 10: ENERGYSTAR Procurement	eliminated
Transportation	OP Credit 22: Commuter Options	eliminated
Water and Landscape Management	OP Credit 25: Organic Campus	eliminated
Buildings	OP Credit 3: Indoor Air Quality	relatively unchanged
Buildings	OP Credit 4: Green Cleaning Service	relatively unchanged
Climate	OP Credit 4: Greenhouse Gas Emissions Inventory	relatively unchanged
Energy and Climate	OP Credit 13: Energy Intensity – Trend	relatively unchanged
Energy and Climate	OP Credit 14: Renewable Electricity Consumption	relatively unchanged
Energy and Climate	OP Credit 15: Renewable Energy Consumption	relatively unchanged
Energy and Climate	OP Credit 16: GHG Emission Reductions	relatively unchanged
Materials and Recycling	OP Credit 17: Waste Minimization – Trend	relatively unchanged
Materials, Recycling, and Waste Minimization	OP Credit 17: Electronic Waste Recycling Program	relatively unchanged
Materials, Recycling, and Waste Minimization	OP Credit 21: Hazardous Waste Management	relatively unchanged
Planning and Development	OP Credit 1: Campus Master Plan	relatively unchanged
Planning and Development	OP Credit 2: Campus Design Specifications	relatively unchanged
Planning and Development	OP Credit 3: LEED-EB Trend	relatively unchanged
Planning and Development	OP Credit 4: LEED-CI Trend	relatively unchanged
Prerequisite	OP Prerequisite 1: Recycling program	relatively unchanged
Purchasing	OP Credit 9: Green Seal Procurement	relatively unchanged
Purchasing	OP Credit 23: Environmentally Preferable Furniture Purchasing	relatively unchanged
Transportation	OP Credit 28: Air Travel	relatively unchanged
Transportation	OP Credit 21: Alternative Transportation	relatively unchanged
Water and Landscape Management	OP Credit 24: Irrigation Water Consumption Trend	relatively unchanged
Purchasing	OP Credit 7: Sustainable Food Purchasing	strengthened
Purchasing	OP Credit 11: Computer Purchasing	strengthened
Materials and Recycling	OP Credit 18: Waste Diversion Rate – Trend	weakened
Purchasing	OP Credit 12: Environmentally Preferable Paper	weakened
Purchasing	OP Credit 8: Non-meat Dining Options	weakened
Transportation	OP Credit 20: Fleet GHG Emissions – Trend	weakened
Water and Landscape Management	OP Credit 26: Storm water Management	weakened
Water and Landscape Management	OP Credit 23: Potable Water Consumption Trend	weakened

Governance and Finance Indicators Proposed in Drafts of STARS

Section Title	Original Credit Description	Final outcome
Funding	GF Credit 6: Reinvestment Mechanism	eliminated
Funding	GF Credit 7: Dedicated Sustainability Funding	eliminated
Institutional commitment	GF Credit 5: Shared Governance	eliminated
Investment	GF Credit 8: Endowment Transparency	eliminated
Community relations and partnerships	AF Credit 18: Public Policy Engagement	relatively unchanged
Community relations and partnerships	AF Credit 16: Financial Incentives for Public Service Careers	relatively unchanged
Community relations and partnerships	AF Credit 17: Outreach & Partnerships Carnegie Designation	relatively unchanged
Human resources	PAE Credit 13: Staff Professional Development in Sustainability	relatively unchanged
Human resources	ER Credit 18: Sustainability in New Employee Orientation	relatively unchanged
Human resources	ER Credit 19: Employee Peer-to-Peer Sustainability Outreach Program	relatively unchanged
Institutional commitment	GF Credit 1: Guiding Documents	relatively unchanged
Institutional commitment	GF Credit 2: Sustainability Implementation Plan	relatively unchanged
Institutional commitment	GF Credit 3: Sustainability Officer	relatively unchanged
Investment	AF Credit 5: Shareholder Engagement	relatively unchanged
Investment	GF Credit 9: Committee on Shareholder Responsibility	relatively unchanged
Investment	GF Credit 10: Proactive Sustainability Investments	relatively unchanged
Public engagement	PAE Credit 19: Community Sustainability Partnerships	relatively unchanged
Public engagement	PAE Credit 21: Sustainability in Continuing Education	relatively unchanged
Sustainability infrastructure	AF Credit 12: Inter-Campus Collaboration on Sustainability	relatively unchanged
Sustainability infrastructure	AF Credit 11: Sustainability Recognition Program	relatively unchanged
Institutional commitment	GF Credit 4: American College & University Presidents Climate Commitment	weakened
Investment	GF Credit 11: Investment Screening	weakened
Prerequisite	GF Prerequisite 1: Sustainability Committee	weakened

Education and Research Indicators Proposed in Drafts of STARS

Section Title	Original Credit Description	Final outcome
Curriculum	ER Credit 1: Graduation Requirement	eliminated
Curriculum	ER Credit 3: Student Exposure to Sustainability – Trend	eliminated
Informal education	ER Credit 12: Student Organization	eliminated
Literacy	ER Credit 17: Sustainability Literacy Survey – Threshold	eliminated
Literacy	ER Credit 18: Sustainability Literacy Survey – Trend	eliminated
Research	ER Credit 8: Funded Research – Trend	eliminated
Research	ER Credit 9: Internal Research Grant – Trend	eliminated
Research	ER Credit 10: Research Center	eliminated
Co-curricular education	ER Credit 2: Sustainability-Related Competition	relatively unchanged
Co-curricular education	ER Credit 3: Sustainability in New Student Orientation	relatively unchanged
Co-curricular education	ER Credit 4: Sustainability Outreach and Publications	relatively unchanged
Co-curricular education	ER Credit 13: Student Sustainability Outreach Program	relatively unchanged
Curriculum	ER Credit 6: Sustainability-Related Academic Courses	relatively unchanged
Curriculum	ER Credit 7: Sustainability Courses by Academic Department	relatively unchanged
Curriculum	ER Credit 11: Sustainability-Focused Graduate Academic Program	relatively unchanged
Curriculum	ER Credit 12: Sustainability Immersive Experience	relatively unchanged
Curriculum	ER Credit 4: Course Development Incentives	relatively unchanged
Curriculum	ER Credit 6: Academic Program or Department	relatively unchanged
Curriculum	ER Credit 13: Non-Credit Sustainability Courses	relatively unchanged
Curriculum	ER Credit 14: Sustainability-Focused, Non-Academic Certificate Program	relatively unchanged
Curriculum	ER Credit 15: Curricular Engagement	relatively unchanged
Literacy	ER Credit 15: Sustainability Literacy Survey – Baseline	relatively unchanged
Research	ER Credit 20: Research Inventory	relatively unchanged
Research	ER Credit 22: Faculty Involved in Sustainability Research	relatively unchanged
Research	ER Credit 23: Departments Involved in Sustainability Research	relatively unchanged
Curriculum	ER Credit 5: Course Designation	strengthened
Research	ER Credit 11: Research Incentives	strengthened
Curriculum	ER Credit 2: Course Offering – Trend	weakened
Curriculum	ER Credit 7: Tenure, Promotion, and Hiring	weakened
Literacy	ER Credit 16: Sustainability Literacy Survey – Phased	weakened
Literacy	ER Credit 14: Sustainability Learning Goal	weakened