




2017

The Architects And Architecture Of Knowledge: The Formation And Circulation Of Social Identities In Higher Education Research

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The Architects And Architecture Of Knowledge: The Formation And Circulation Of Social Identities In Higher Education Research

Abstract

In this dissertation, I explore the construction and reproduction of social identities (race, ethnicity, sexual orientation, and gender identity) in educational policy and research. Framed through a Foucauldian genealogy of knowledge-making practices, I focus on the discourses of social identities embedded in the (re)production of data in educational research. Drawing from sociohistorical methods and bibliometrics, I examine three distinct, yet interrelated, domains. First, I explore the construction of datasets used in postsecondary research, including a federal dataset (the Integrated Postsecondary Education Data System) and a private nationally-representative survey of students (The Freshman Survey). Secondly, I consider the uses of data emerging from these databases by examining 21,069 peer-reviewed articles published in eleven journals of educational research. Lastly, I examine the discursive practices of social identities in the context of a specific postsecondary institution (East University, a pseudonym), where I connect administrators' perspectives on demographic data collection practices with emerging federal standards. Findings suggest that there is a need for increased critical data literacy to understand the points of convergence between the conceptual framing of race/ethnicity and sexual orientation/gender identity. I suggest a need for more coalitional politics in the production of educational research as a strategy to enhance how social identities are understood in contemporary educational research.

Degree Type

Dissertation

Degree Name

Doctor of Philosophy (PhD)

Graduate Group

Education

First Advisor

Marybeth Gasman

Keywords

Federal dataset, Foucault, Governmentality, Sociology of Knowledge

Subject Categories

Education Policy | Higher Education Administration

THE ARCHITECTS & ARCHITECTURE OF KNOWLEDGE: THE FORMATION AND CIRCULATION
OF SOCIAL IDENTITIES IN HIGHER EDUCATION RESEARCH

Andrés Castro Samayoa

A DISSERTATION

in

Education

Presented to the Faculties of the University of Pennsylvania

in

Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

2017

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*Para mi querida madre,
Ana Joyce Samayoa Pino
(8 de diciembre, 1955 – 30 de enero, 2016),
cuyo amor y aliento me dieron los ánimos
para aprender y compartir,
cada día un poco más.*

ACKNOWLEDGMENT

In the years leading to this project, I often heard advanced graduate students share stories of the necessary solitude that accompanied the completion of a dissertation. Many of my peers pointed to elements of isolation as a rite of passage. To my fortune, I have greatly benefitted from the various communities that have ensured that my own journey was filled with collective enthusiasm and support which kept me focused, motivated, and inspired throughout the years I have taken to complete this project. Unlike the solitude of which I was forewarned, undertaking this dissertation was an opportunity to cross paths with inspiring minds, strengthen the bonds of friendship, and affirm the value of collectivity in academic spaces. In turn, these generous communities proved instrumental in my quest to refine the seedlings of ideas that eventually blossomed into various sections of this dissertation.

Since February 2012, Marybeth Gasman has been a steadfast supporter and mentor throughout my doctoral education. Her generosity of spirit, resilience, and academic dexterity have served as inspiring attributes that continue to be guiding milestones in my own development. As the chair who has guided me through this project, Marybeth has consistently inspired me to push my own thinking, and to believe in our collective capacity to find open windows whenever one feels that all doors have been closed. Her integrity continues to inspire me, both as a person and scholar, and for that I am truly grateful. My committee has been instrumental in believing in the possibilities of this project. Matthew Hartley's counsel provided much needed focus as

my project germinated. Matt's insightful commentary enabled me to find the niche where I could envision the relevance of my work in educational research. Matt, I thank you for continuing to model how to be a humane scholar in the field. I first met Camille Zubrinsky Charles at an event for the Summer Institute for Africana Studies. There, I rejoiced in her ability to connect with people and her incisive mind. Her willingness to believe in the quality of my project and the potential of my ideas allowed me to push past the boundaries that I had first considered. Anne-Marie Núñez serves as a possibility model for myself and so many researchers by offering an elegant breadth and care in her scholarship. Her work not only refined many of the arguments in this project, but her candor as a person and mentor animate my desire to contribute in this field. Alongside these esteemed colleagues, I am grateful to the other faculty members I have encountered throughout my experience at the Penn Graduate School of Education, as well as the wise counsel from Patty Lynn and the phenomenal library and research resources within the university. The support and assistance from Betty Deane and Janeen Chavis in the final stages of this project ensure I met all of the criteria to deposit this work. The various participants who offered their generous insights and time provided the foundations that enabled me to share their stories in this dissertation. I am grateful for their labor in our field and for the possibilities that they create for a more just world.

The various members of what S. Bear Bergman refers to as a "constellation of intimates" have provided unwavering care and comfort in the years leading to the

completion of this project. Tía Evelyn and the beautiful familia Quesada, Mauricio, Jesy, and Mauricio José have kept me going each day. My father, Mauricio, was the first to believe that I had a future in academia when I was a child – and that is a memory that I cherish to this day. Bianca, Marc, Fran, Tovah, Kevin, Konrad, Kevin and Mackenzie, have provided laughter in times of need. Rhiannon’s helpful check-ins and friendship offered refuge in the last weeks to completion, as did Charlotte and Kelsey’s writing group. The brilliant minds of Susan & Z have stimulated my own thinking and provided a community of inquiry that has left me refreshed and inspired every moment we connect. J. Falkenheim has joined me every step of this journey with wise insights and encouragement and J. Ellman offered the last words needed to wrap up the project. Ben’s presence provided the serenity needed to complete this project. Rita joined me across oceans every step of the way and provided the love and comfort of chosen family. My dearest Eva, Bridget, MacKenzie, Jackie, Sara, Aaron and the Kimmel squad offered solace when I needed it most. To my best friend and partner in life, Bryan Edward DeSilva: gracias desde el fondo de mi corazón.

ABSTRACT

THE ARCHITECTS & ARCHITECTURE OF KNOWLEDGE: THE FORMATION AND CIRCULATION OF SOCIAL IDENTITIES IN HIGHER EDUCATION RESEARCH

Andrés Castro Samayoa

Marybeth Gasman

In this dissertation, I explore the construction and reproduction of social identities (race, ethnicity, sexual orientation, and gender identity) in educational policy and research. Framed through a Foucauldian genealogy of knowledge-making practices, I focus on the discourses of social identities embedded in the (re)production of data in educational research. Drawing from sociohistorical methods and bibliometrics, I examine three distinct, yet interrelated, domains. First, I explore the construction of datasets used in postsecondary research, including a federal dataset (the Integrated Postsecondary Education Data System) and a private nationally-representative survey of students (The Freshman Survey). Secondly, I consider the uses of data emerging from these databases by examining 21,069 peer-reviewed articles published in eleven journals of educational research. Lastly, I examine the discursive practices of social identities in the context of a specific postsecondary institution (East University, a pseudonym), where I connect administrators' perspectives on demographic data

collection practices with emerging federal standards. Findings suggest that there is a need for increased critical data literacy to understand the points of convergence between the conceptual framing of race/ethnicity and sexual orientation/gender identity. I suggest a need for more coalitional politics in the production of educational research as a strategy to enhance how social identities are understood in contemporary educational research.

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Section I: Overview

Data-driven decisions, predictive analytics, dashboards, databases. The global massification of higher education has augured new ways of engaging tracking, assessing, and monitoring students. Disaggregating data on educational outcomes by social identities, such as race and ethnicity, is a common strategy used by researchers seeking to illustrate and understand persistent educational inequities. A robust cadre of scholarship has carefully mapped the disparate educational terrains along axes of gender, race, and ethnicity within postsecondary education (Griffin *et al.*, 2010; Jacobs, 1996; Teranishi, 2010). Using large-scale datasets containing demographic information is critical to understanding the condition of education in the United States and, indeed, has been a mandate of the Department of Education since its inception in 1870 (Fuller, 2011). Survey items used to collect information on social identities within large-scale datasets in education reflect the vicissitudes of broader social attitudes about race, ethnicity, gender and sexual identities.

The changes in social constructs used for demographic tabulations pose a methodological tension of particular import: how do researchers understand shifting conceptions of social identities while also maintaining the data's structural integrity for longitudinal analyses? In this project, I center the perspectives of individuals charged with designing and implementing modifications to large-scale data sets and explore how the manner in which demographic data are collected can be understood as politicized

choices mapping onto new ways of thinking about race, ethnicity, gender and sexuality. Indeed, our collective penchant to tabulate, and understand large populations is not a new phenomenon. Social structures to classify people date back to 18th century strategies in the Western contexts (Porter, 1995). And, as Ian Hacking has also articulated, the deployment of these new strategies has not only enabled us to understand the world, they are also a process through which we *make* it (1990).

In this dissertation, I explore the construction and reproduction of social identities. It extends this inquiry by focusing on various knowledge-making practices within educational research as its primary site of investigation. I examine three distinct, yet interrelated, domains of interest. First, I explore the *construction* of datasets used in postsecondary research, including a federal dataset (the Integrated Postsecondary Education Data System) and a private nationally-representative survey of students (The Freshman Survey). Secondly, I consider the *uses* of the data educational researchers in published work. In one of the sections of this project, I also consider how broader constructions of social identities are articulated in peer reviewed work across a sample of journals in the field of higher education. Lastly, I examine the discourses of social identities in the context of a specific postsecondary institution, where I connect the ways in which federal datasets inform the practices ‘on the ground’.

The work that I lay out in this dissertation provides the foundation for future inquiries expanding some of the concepts that I propose. I make the case that we must enhance our sense of *critical data literacy*, which I use as a shorthand to underscore the

practices that enable us to interrogate how we produce and consume information by historicizing these data in order to understand their underlying politics. *Critical data literacy* as a term has been previously used in the field of informatics to discuss the need for renewed skepticisms in the age of ‘big data’; in this work, I share this sentiment and expand it to also foreground the importance of genealogic examinations informing our usage of data (Foucault, 1978; Tygel & Kirsch, 2015).

Further, I underscore the need and importance of enacting *intersectional dispositions* in the production of educational research. In calling attention to the importance of producing work that cuts across identities and disciplinary traditions, I seek to acknowledge the valuable contributions that Black feminist inquiry provides to current knowledge-producing practices (May, 2015; Nash, 2008). In addition to a commitment to intersectional approaches to these questions, I am also invested in cross-disciplinary engagements. One way of achieving this is by tracing the various narratives that emerge from the three interrelated spheres of knowledge-making practices under consideration in this work. three distinct, albeit interrelated, spheres of the educational world: federal policies and data collection strategies as mentioned above, as well as, educational researchers’ writings, and institutional researchers’ operations. In focusing on these three examples, I connect the various discursive lives that we give to social identities—such as race, ethnicity, gender, and sexuality—across the spectra of activities in our work as educational researchers.

Furthermore, I empirically show that we have consistently forgotten to enact a willful disposition that creates a space for intersectional scholarship in the field of higher education. I show the discursive disciplinary segregation that perpetuates an investigative myopia in our field. In the last part of this dissertation, I consider the repercussions of choosing which social identities are included in these databases by drawing from perspectives of staff at a private four-year postsecondary institution, East University (a pseudonym), and an ethnographic exercise featuring a technical review panel of IPEDS with members of NCES and community experts. I make the case that the outcomes of this work are not limited to professional educational researchers. Rather, I suggest that this work can be taken up by individuals in the civil sector and in everyday organizational and administrative posts within educational institutions.

Given the interconnected areas of interest in this dissertation, I sought to address three complementary questions:

- How do ideologies of social identities inform the protocols and processes used to include and change data collection strategies in education datasets?
- In what ways do researchers reuse or transform these data on social identities in their own knowledge-making practices?
- What lessons can be discerned from the implementation of changes to racial/ethnic data collection protocols that can inform future changes to demographic data collection on gender and sexual identities?

I address each question in a separate section, beginning with *Section II: Producing Bodies of Data*, where I focus on the changes in racial/ethnic categorization. Using historical methods, I trace the changes to demographic survey items within two commonly used repositories of postsecondary data: the Integrated Postsecondary Education Data System (IPEDS) established in 1986 and administered by the National Center for Education Statistics and The Freshman Survey (TFS), founded in 1965 and now housed at the Higher Education Research Institute at the University of California, Los Angeles (UCLA). Though IPEDS and TFS vary greatly in their scope and intent, their ubiquity within educational policy and scholarship make them ideal datasets to investigate in greater detail. IPEDS is a federally-administered census of postsecondary institutions' information, whereas TFS amasses first-year students' responses from a subset of postsecondary institutions. By comparing and contrasting the methodological questions with which researchers engage as they design survey prompts on race and ethnicity—and, more recently, gender and sexuality—this project clarifies the various ways through which ideologies of identity are embedded in datasets that provide the cornerstone for broad swaths of educational research. Interrogating these embedded ideologies is of particular importance as these data are common points of departure to make claims about the state of unequal educational opportunities across the country.

In *Section III: Mapping Bodies of Data*, I examine the usage of data from the National Center for Education Statistics and the Higher Education Institute at UCLA—the homes of both IPEDS and TFS—in published peer-reviewed work. This section is framed

through the lens of a sociology of knowledge-making practices, thus I view peer-reviewed work as an artifact evidencing knowledge-making practices in academia (Camic, Lamont & Gross, 2011). Through bibliometric methods, I visualize the various fields of scholarship on social identities in postsecondary education. I further complement these visualizations with close textual readings that seek to identify the various discourses informing how researchers articulate ways of knowing (epistemologies) of social identities.

In *Section IV: Institutionalizing Bodies of Data*, I consider two examples where specific discourses of social identities circulate ‘on the ground’. First, I return to the National Center for Education Statistics’ IPEDS and explore how current conversations on emerging categories for Sexual Orientation and Gender Identity (SOGI) measures harken back to similar discursive tropes used to discuss changes to race and ethnicity measurements. Further, I incorporate the narratives emerging from institutional staff at a private institution in the northeast whose insights provide valuable context to the changes enacted by NCES. These conversations reveal the ongoing tensions that emerge when there are competing expectations with regards to the role that demographic data plays in the postsecondary sector.

Given the multiple domains of exploration, I have made use of a number of sources and archives, schematized in Fig. 1 (below)

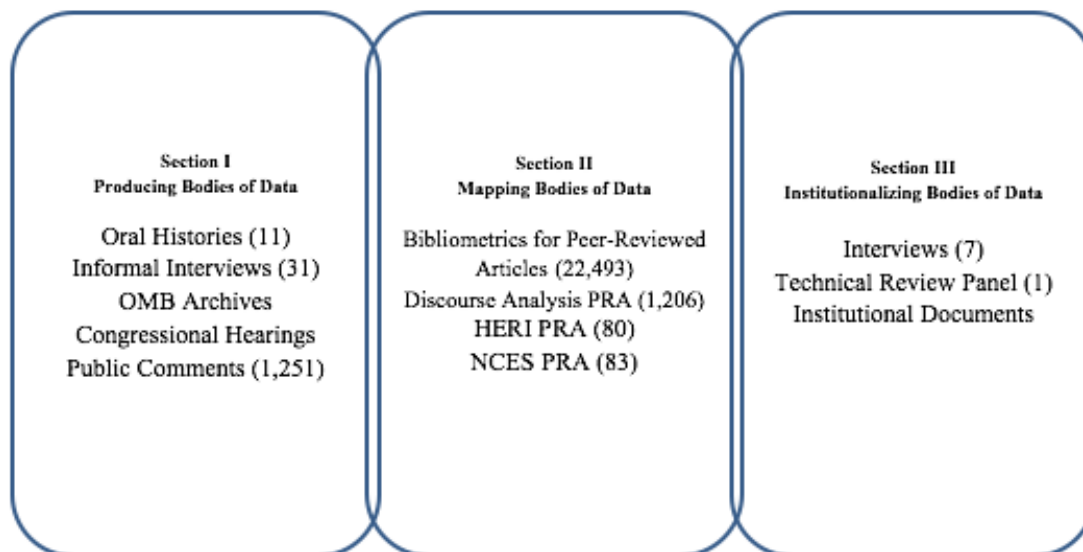


Figure 1 Overview of Sources

In Section II, I draw insights from a number of oral histories and archival documents focused on NCES and TFS. I then turn to digital archives and focus on a group of 11 peer-reviewed journals in education to use bibliometrics methods to map out the relationships of educational researchers' publications in Section III. I focus on a specific subset of these peer-reviewed works to examine their content in-depth and map out the discursive practices of researchers in the field, with a section also focusing on the extant peer-reviewed published research based on NCES and HERI data.

I conclude the project in Section IV with data emerging from the observations and materials emerging from a Technical Review Panel conducted for IPEDS in October 2016, as well as interviews with six staff members at a postsecondary institution who discuss their own perspectives on measurements of students' social identities. Effectively, these

workers are 'on the ground' and serve as the agents that both comply and translate federal policies for their own institution. Yet, by virtue of their very proximity these workers not only follow the procedural work that is trickled down through NCES and IPEDS, but they also respond to the civic engagement of their campus' students which have served to underscore the limitations of current data collection strategies. The tension from this work, then, provides compelling insights into the ethical and pragmatic choices that these administrators must make in their everyday operations to meet the needs of both federal compliance and the students with whom they work.

As I outline in this work, the innocuous technological platforms (databases, forms), in effect, serve as strategies for social justice and innovation. In making this claim I animate an analytic of intersectional disposition, where we focus not only on the *words* with which our interlocutors share their stories, but also on the possibilities that their actions create for others. Perhaps in this way, I can also make the case that these are strategies that are epistemologically consistent with quantified approaches to making sense out of the world and that can also enable us to better appreciate the nexus between qualitative and quantitative methodologies. Like Johanningmeier & Richardson (2007) have already demonstrated, the qualitative/quantitative distinctions are largely invalid at the turn of the 20th century.

How can critical theory animate new ways of understanding data collection strategies? This has been a question that largely animates the structure, approach, and analyses in this dissertation. As I document throughout these chapters, this project has

been largely informed by dozens of informal interviews and oral histories with federal government officials whose background in statistics and demography fine tunes their epistemological vantage point—their specific ways of understanding the world. As a researcher whose intellectual development has not occurred within these disciplinary traditions, it might be tempting to believe that this work is indifferent to upholding specific methodological approaches.

The ultimate claims of this dissertation are not meant to animate a wholesale dismissal of educational research as a field. On the contrary, the goal is to envision and enliven dialogues that can sustain the inquiries that we undertake in the field as critically important to the democracies in which we participate. In this regard, the critical reappraisal of quantifiable practices in education allow us to better understand how we can build bridges across distinct, albeit complementary, epistemological understandings of knowledge-production practices. To echo the work that Camic, Gross & Lamont (2011) proposed, this investigation models a way through which we can engage in the possibility of more robust educational research—one that is consistently self-reflective and generously open to new ways of making sense of the world. In doing so, I join the chorus of critical scholars that attempt to amplify how we understand, make sense, and advocate for change in our social world of education. I hope that this work can also contribute to new ways of making sense of our field and world. Said differently, and to echo the value of idiomatic expressions, the work I outline here does not seek to “toss out the baby with the bathwater,” but rather, to understand the

potential points of convergence by closely examining the language, practices, and histories (the various discourses) informing our knowledge-making practices in educational research.

Theoretical Formulations

My goal is to unpack the competing ideologies that operate in the production of new knowledge within the educational domain. Thus, when seeking to interrogate how researchers frame and understand social identities within the body of work they produce, I must consistently foreground the backdrop under which this scholarship is produced. It is, in fact, not nurtured within a vacuum devoid of the idiosyncratic trappings of academia but, in fact, constitutive of these complicated webs of knowledge. As such, this project is informed through the influence of a number of key thinkers spanning multiple disciplinary fields. I anchor my work in Michel Foucault's notion of the bio-political, that is, the manifold strategies through which societies govern human social interactions and processes (Foucault, 2008 [1978]). I draw from Foucault's concepts on governmentality and bio-politics to understand the underlying logics informing the creation and usage of demographic datasets in education. Understanding practices of social quantification as constitutive of bio-political regimes enables an inquiry invested in "an analysis of the material practices of control and data gathering that evolve into the instruments of political economy and population management." (Power, 2011, p. 41). Though several education scholars have already employed Foucauldian approaches (Ball, 2012; Ball, 2013; Popkewitz & Brennan, 1998),

few have investigated the ways in which bio-politics as an analytical lens allows us to understand the constitution of datasets used within the educational world.

Some scholars have called attention to the limits of Foucault's considerations of racial logics in his own work (Stoler, 1995), as well as critiqued the lack of individuals' agency (McKee, 2009). In this research, I ameliorate these concerns by leveraging the epistemological contributions that oral histories provide to archival research (Frisch, 1990). Alongside documentary analysis, I also seek to capture an understanding of who were the individuals that had a seat at the table in producing the survey instruments that we use within educational research.

Coupling Foucault's conception on bio-politics alongside scholarship on the sociology of knowledge provides an opportunity to better understand the practices informing the individuals who had a seat at the table in the production of these survey instruments. These works enable me to ask questions that interrogate the everyday actions embedded in academic institutions that enable scholars to formalize their research through the institutionalization of academic fields. For example, how can we narrate the confluence between the advent of large-scale educational research and its influence on how we understand social identities within educational research? What remains absent from our current historical accounts are comprehensive narratives of the seemingly mundane acts of technicians who built the systems to collect data or the federal employees at the National Center for Education Statistics who interpreted the Office of Management & Budget's revised guidelines for racial/ethnic data reporting and

collection. Centering their voices enables us to clarify how specific collectives of individuals serve as instigators and gatekeepers of changes that have profound ripple effects across the field. Focusing on their contributions, this dissertation clarifies the complex web of interpersonal dynamics that underlie institutional change with respect to the collection of demographic information. This project's interest in largely overlooked actions and processes echoes Dobbin's (2011) examination of how corporate personnel across companies in the U.S. interpreted and institutionalized federal mandates for equal opportunities within the workplace. Following this line of inquiry, I detail the perspectives of the individuals whose approaches to understanding social identities have had profound repercussions in the way categories of race, ethnicity, gender, and sexuality are included, excluded, and disaggregated in these surveys.

Much of the work concerned with understanding the daily practices that enable the production of knowledge, however, has focused on the production of knowledge within the biological and hard sciences (Kuhn, 2012 [1962]; Merton, 1973) and, more recently, on the social sciences (Camic, Gross & Lamont, 2011). Few studies, however, have attempted to examine the emergence of educational research as its primary unit of analysis. Ellen Condliffe Lagemann's (2002) *An elusive science: The troubling history of education research* stands as one of the few texts documenting the emergence of scientific inquiry within the educational realm. Lagemann's argument positions Edward L. Thorndike's philosophies favoring "a narrowly individualistic, behaviorally oriented,

and professionalized conception of educational study,” as the dominant paradigm affecting the development of educational research (p. ix). Lagemann’s research, however, focuses on the rich history of the educational field through the intellectual development of specific individuals (with Thorndike and Dewey as the protagonists in her review). In her work, however, less attention is offered to the seemingly ordinary practices that affect the production of bodies of evidence in education, such as the proliferation of nationally representative databases.

Social policies, law acts, alongside speech acts and everyday actions construct our everyday realities. Amongst these different fragments of our lived realities, we interact with forms on a daily basis. Simply put, forms are ubiquitous in everyday life. In educational research, forms (e.g. surveys) are the vehicles through which students become embedded within the fabric of colleges and universities’ institutional webs. It is precisely in their ubiquity that forms wield power by receding to the background of innocuous everyday acts. My project focuses on how these forms come to life. Who chooses the questions that we seek and for what purpose? By tracing these genealogies and connecting these practices within dominant ideologies, I seek to contribute to the emancipatory potential of disrupting the power wielded by these data collection strategies. Some historians have documented the proliferation of survey technologies in the United States (Anderson, 2015; Igo, 2007). These works speak to my interest in better understanding the rationalities deployed by survey developers by calling attention to the implicit ideologies that become manifested in the name of objectivity.

Specifically, my work aims to contribute to new understandings of how these ideologies have become embedded within educational spaces (Smeyers & Depaepe, 2010).

How do Foucault's ideas on governmentality enable us to understand federal operations differently? Foucault's lectures from the early 1970s on governmentality are undergirded by a sustained examination of rhetorics of power that have constructed regimes of authority from feudal states, into monarchies, to contemporary liberal democracies. But the formation of the sovereign state—rather than the embodied sovereign designated by Western monarchies—marks a diffusion of power that Foucault contends fundamentally transformed how we understood social relations at the turn of the 18th century. For Foucault, power can be understood as the intractable and regulatory relationships across subjects. Beckoning Bentham's image of the panopticon is a formative way of understanding Foucault's germinating ideas on how power can be understood within Victorian western contexts. Like the prisoners in Bentham's prison, the illusion of being watched without the certainty that one is, indeed, being looked at, is sufficient to regulate one's behaviors. It is, then, not necessary for every one of our actions to be literally observed by the state/guard, but the very thought that we might be observed at any given moment results in the self-disciplining rituals that Foucault cautions us against. How, then, do these regulatory forces connect back with the issues of education and data collection? In Foucault's concern with the diffusion of power, he also discusses the strategies adopted by the state to create norms of existence: blueprints that provide normalized ways of understanding how lives unfold. Sara Igo's

(2007) book, *The averaged American: Surveys, citizens, and the making of a mass public*, demonstrates that the reliance of averaged populations to understand our world is a recent phenomenon. In fact, the processes of normalizing these instruments as part and parcel of everyday life have reinforced their 'givenness' in our social world. Foucault concurs, albeit calls statistics a technology of governance charged with producing specific ways of constructing an emergent understanding and cohesiveness for the nation state.

Rose, O'Malley & Valverde (2006) reflect on Foucault's writing on governmentality which he understood as "a certain mentality [...] which had become the common ground of all modern forms of political thought and action" (p. 86). Citing Foucault, they go on to describe governmentality as "an 'ensemble formed by the institutions, procedures, analyses and reflections, the calculations and tactics, that allow the exercise of this very specific albeit complex form of power' (Foucault 1979, p. 20)" (p. 86). These examinations were later taken up by the likes of Power whose work on "the technologies of budgets, audits, standards, and benchmarks, apparently so mundane, were crucial for the operationalization of programs of governing at a distance that characterized the forms of new public management taking shape under rationalities of advanced liberalism" (Rose *et al.*, 2006, p. 95).

As I have previously mentioned, *Section III* seeks new understandings of how researchers (and those who use their work) constitute discourses of social identities. This follows a specific line of inquiry that is largely invested in furthering the work of

post-modern thinkers. Some anthropologists (e.g. Johnson-Hanks, 2008) have called attention to the ways in which researchers benefit from self-reflexive scrutiny; as Johnson-Hanks notes: “Cultural and social anthropologists have paid scant attention to population size, structure, and dynamics, particularly in recent years. New work on risk, aggregation, *statistics, and population as a discursive formation* has made this absence more problematic” (p. 302; emphasis added). Works calling attention to the embedded normative practices within academic disciplines are greatly indebted to the legacies of thinkers like Foucault whose genealogical examinations of governmentality enabled critical engagement with contemporary discourses, such as the preponderance of scientific empiricism. Foucault’s work furthered a specific way of understanding how “institutional practices ground systems of knowledge. For example, the modern state’s need to define and control populations led to new statistical techniques and new ways of categorizing persons” (Swidler & Ardit, 1994, p. 315).

The critique of positivism in the sciences and social sciences established its initial traction in the early 1970s, though the varying degrees of interest with which these commentaries were taken up can also be attributed to specific camps of thought across disciplines and regions of the world. For American sociologists, for example, Agger (1991) noted that even though the general practices of research were not entirely beholden to positivist frameworks, “the research and writing they [American sociologists] do tend to embody the central positivist tenet that it is possible to reflect the world without presuppositions, without intruding philosophical and theoretical

assumptions into one's work" (p. 106). These observations may, by now seem somewhat dated given the large incidence of critical sociology that has considered the value of specific "standpoint epistemologies" situating researchers' vantage points as part and parcel of the practice of writing and making sociological knowledge. But what Agger astutely points out is the manner in which vestiges of the positivism discussed by earlier proponents of critical theory (e.g. Horkheimer & Adorno, 2002 [1972]), is manifested in the current deference to the presumed objectivity and systematicity of scientific inquiry. Agger reminds us that "positive science was insufficient to banish the mythology," that had previously been conferred to religion during the Enlightenment period and, instead, "the positivist theory of science has become a new mythology and ideology in the sense that it fails to understand its own investment in the status quo" (p. 109). In this regard, the beliefs that Adorno, Horkheimer, and other members of the Frankfurt school advanced enabled us to appreciate how "people everywhere are taught to accept the world 'as it is,' thus unthinkingly perpetuating it" (p. 109). The problem, of course, is that these tenets do not only apply to lay people, but indeed to everyone. Not even those who espouse the ideals of objective inquiry are exonerated from such deference to the status quo. Objectivity or "the seeming avoidance of values," is, in fact, "the strongest value commitment of all, exempting one's empirical claims from rigorous self-reflection and self-criticism" (Agger, p. 111).

The practices that produce Agger's ideas enabled us to understand methodology as "a form of rhetoric, seconding certain assumptions and values about the social

world,” whereupon our attentiveness to deconstructing these codes allowed us to refuse “to see methodology simply as a set of technical procedures with which to manipulate data” (p. 114). This form of critical inquiry enables us to explore the subtext of even the most mundane practices of knowledge production, or as Agger deftly explains

In synthesis, poststructuralism helps science readers and writers recognize their own literary involvements and investments in the text of science. No matter how seemingly insignificant, every rhetorical gesture of the text contributes to its overall meaning. How we arrange our footnotes, title our paper, describe our problem, establish the legitimacy of our topic through literature reviews, and use the gestures of quantitative method in presenting our results—all contribute to the overall sense of the text. We can learn to read these gestures not simply as embezzling ‘subtext’ but also as *a central text in their own right, making an important contribution to the argument of science*. We can also rewrite science by authorizing these seemingly marginal gestures, turning them into the discursive arguments they really are” (Agger, 1991, p. 115; emphasis in original).

Postmodern traditions have the potential of transforming the practice of creating new knowledge in the social sciences. John Hall (1990), for example, has pointed to the influence that Michel Foucault’s writing on the process of narrating the discursive genealogy of normative ideals (such as the concepts of ‘madness’ and ‘sexuality’) lend themselves to a scattered method or, as Hall called it “a pastiche,” providing Foucault’s “analysis a postmodern flavor” (p. 339). Unlike others authors, however, Hall is strict in his categorization of this peripatetic analysis as deeply rooted in the postmodern tradition as it rejects “the abstracted, ahistorical character of structuralist thought,”

which enables us to see how “epistemology is unmasked as a moment of power, Western science as a cultural practice of discipline” (Hall, 1990, p. 339; 340). It is also worthwhile to frame my project in the explorations of emergent trends in sociology of knowledge, which has largely been identified as “the search for social interests that bias even supposedly neutral, disinterested, objective understanding of the world—what the very term ‘knowledge’ connoted,” as a central idea of the field with a specific attention to the “forms and practices of knowing” (Swidler & Ardit, 1994, p. 306).

Perhaps most pointed in understanding the role that Foucault plays in this work is also foregrounding how these detailed examinations of the mundane “is critical, but not critique—to identity and describe difference and hence to help make criticism possible.” (Rose *et al.*, 2006, p. 101).

At the same time, gesturing towards Foucault’s work enables me to interrogate the embedded racial logics within the quantification of educational research. Some scholars have called attention to the limits of Foucault’s considerations of racial logics in his own work (Stoler, 1995), thus I couple Foucault’s understanding of the biopolitical alongside scholarship that attends to the discursive production of racial projects (Omi & Winant, 2014; Zuberi, 2001). Scholars like Zuberi (2001) have traced the lineage between statistical methodologies reliant on quantified social identities with specific formations of racial discourses. Similarly, in a collection by Zuberi and Bonilla-Silva (2008), Allen and colleagues commented that “the emphasis on analyzing large statistical data sets risks dehumanizing disadvantaged students by ignoring the complex experiences that

influence educational attainment.” (p. 217). These perspectives caution against the potentially reductive ways through which the statistical analyses derived from large-scale datasets can limit conceptualizations of social identities. Because large datasets provide foundational information that is often used to frame broader narratives of persistent educational issues, the implications of how social identities are collected through these instrument is of importance. The data to understand how certain populations are disproportionately affected by unequal educational opportunities cannot exist unless these social identities are explicitly recognized through these instruments.

For example, the issuance of the 1997 revisions to the standards for the classification of federal data on race and ethnicity by the Office of Management and Budget clarified that multi-racial individuals could be reported beyond the minimum aggregate of “Two or more races” standard, yet the National Center for Education Statistics opted to not report data beyond this minimum aggregated category. In doing so, this choice for data management stymied attempts to provide greater nuance to analyses centering individuals with mixed racial heritage within postsecondary research. Though other scholars like Burke & Kao (2013) and Kramer, Burke & Charles (2015) have called attention to the disparate educational outcomes of students with mixed racial backgrounds using other datasets, like the National Longitudinal Study of Adolescent Health (Add Health), the possibility of producing this research using a census dataset like IPEDS remains elusive.

Centering the lives of multi-racial individuals nuances how social identities are conceptualized within educational research. Yet, these critical accounts have not furthered an understanding of how ideologies of social identities are woven into these datasets through the vantage point of those who are tasked with designing, producing, and maintaining these data. What is known is that changes to demographic information can undergo a range of input prior to any formal modifications. For federal data, these inputs range from public hearings, to request for written commentary, to cognitive field testing (Wallman, 1998, p. 32). As Katherine Wallman, U.S. Chief Statistician notes, “public input helped to identify more clearly...controversial issues,” at the federal level, including the classification of data on individuals of mixed heritage, and the expansion of minimum set of categories to include “groups such as Arabs/Middle Easterns, Cape Verdeans, Creoles, European Americans, and German Americans” (Wallman, 1998, p. 32). Understanding how those charged with issuing final recommendations decided which recommendations met their criteria for inclusion remains less clear and open for further investigation. Through oral histories triangulated with document analysis, this dissertation offers an account of the specific processes through which options for racial and ethnic categories change within instruments like IPEDS and TFS. Furthermore, it also seeks to connect historical accounts of changes to these racial and ethnic categories as relevant to the contemporary efforts seeking to expand data collection strategies on sexual orientation and gender identity.

Positionality

In *Salvador* (1983), Joan Didion offers her first-person account of the weeks she spent in El Salvador at the start of the *guerra civil* [civil war] in the 1980s. The war ended in the 1990s and its turmoil and aftermath overlapped with my own birth and early childhood. In a brief passage, she describes her encounter with the grandson of General Maximiliano Hernández Martínez, the “dictator of El Salvador between 1931 and 1944 and the author of what Salvadorans still call *la matanza*, the massacre, or “killing,” those weeks in 1932 when the government killed uncountable thousands of citizens,” as Didion mentioned. She claims that these killings were “uncountable” because estimates of those killed vary from six or seven thousand to thirty thousand. Even higher figures are heard in Salvador [*sic*], but, as Thomas P. Anderson pointed out in *Matanza: El Salvador’s Communist Revolt of 1932*, ‘Salvadorans, like medieval people, tend to use numbers like fifty thousand simply to indicate a great number—statistics are not their strong point’” (p. 53). The passage, with its casual sting of benevolent racism, had struck me in a personal way. I recalled the countless conversations I had exchanged with my mother where she quickly cited unsourced statistics (‘80% of Salvadorans are truly happy,’ she once said). Her rhetorical strategy appealing to the persuasiveness of quantified statements struck me as neither medieval nor as indicative that statistics were not her strong point. On the contrary, it revealed an affective desire to persuade her listeners and to bring greater emotion to the anecdotes she shared. Numbers, then, were emotional. And statistics, perhaps, were the vehicle through which we could not

only make sense of the world, but also understand our interlocutors with a new and insightful intimacy. In sharing this anecdote, I offer a brief insight into the rationale that animates my own interest in the role that quantifiable knowledge plays in everyday life. This is what I shorthand as the discursive production of quantified knowledge.

Crossing transnational borders can be a privilege; indeed, as the first person in my family to migrate from El Salvador to the United States for an education, I have explored new ways of thinking and being. The processes of understanding new cultural norms can also be isolating; navigating a new cultural milieu warrants different ways of understanding social interactions. These experiences inform my scholarship by nurturing an awareness of how seemingly innocuous practices can marginalize those whose identities are rendered invisible without institutional recognition. The ubiquity of forms and surveys is one mechanism through which processes of marginalization occur. The first time I had to fill a form stating my ethnic and racial heritage in the United States happened during my first week in college. Using the specific racialized orders in these forms was foreign because the colonial heritage informing these categories is inflected with a specific geographical cadence throughout the Americas. Ladinos, mestizos, indígenas, were no longer the referents through which I understood racial orders; hispanicity, instead, became a new collective term. These new ethnic and racial orders are specific to the history of the U.S. and they became clearer as I developed my competency with a new grammar with which to understand social differences. Knowing that Hispanicity as a panethnic marker was neither a recognized nor a viable option sixty

years ago begs the question: what are the processes that enable certain terms to become sufficiently legible for sustained recognition? For those of us who are queer and of mixed heritage, understanding processes through which these identities become legitimated is not just about conducting rigorous research, but also about enhancing visibility for groups that have remained silenced through scant research. I envision research as a platform through which I can inform federal, state and institutional policies that can render us visible. As a queer immigrant researcher with a precarious sense of belonging in this country, thinking about the focus of my work on federal perspectives of research practices, I believe, is timely now more than ever.

Methodologies

Postmodern approaches must also contend with the production of specific boundaries. In the course of this text, I will often allude to the role of educational researchers and their analogs in other spheres of work—be they civil servants, policymakers or staff affiliated with postsecondary institutions. But, what precisely constitutes a disciplinary field? Here then, it is helpful to be reminded of how my own project upholds tenets that are in line with disciplinary traditions shared with other scholars in the field. Or, as Bourdieu claimed, “knowledge is located within larger ‘intellectual fields’ so that the meaning of knowledge depends on its relation to the field as a whole. Thus ‘orthodox’ and ‘heterodox’ positions exist in relation to a field of intellectual power relations. Intellectual fields are, in turn, embedded in larger ‘cultural

fields'; both orthodox and heterodox positions share taken-for-granted 'doxa'" (as quoted in Swidler & Ardit, 1994, p. 317). In this regard, this project may very well pertain to the heterodoxical realms of contemporary educational research by its attention to the production of social identities as discrete categories evidencing the pervasive positivism in orthodox educational research. But, more importantly, it also opens a space where examining the production of these discourses can also serve an emancipatory potential. That is to say, by interrogating the assumptions that are least likely to be questioned, we create a space where "those excluded from power, have a unique vantage point from which to understand aspects of the world that may be invisible to dominant groups" (Swidler & Ardit, 1994, p. 320). In particular, the variety of perspectives that I employ in this work pay close attention to the important role that language plays in mediating power dynamics across multiple domains. Given that some authors interested in discourse categorize Foucault as a poststructuralist (Rogers *et al.*, 2005), then it follows that my attention to the discursive production of social identities through various spheres of the educational world also contribute to this perspective. These same authors point to the powerful sociopolitical context of the late 20th century as a framework to understand why analyzing discursive practices took a hold. As Rogers *et al.* (2005) comment:

"...There was dissent and revolution in society at large. We can look to the Vietnam War and the peace movement, the women's movement, the disability movement, and the civil rights movement in the United States, to name just a few examples. All of this was accompanied by a broader linguistic turn in the

social sciences, a movement away from methodological individuals, and the proliferation of post-structural and post-modern theories” (pp. 365-366).

What type of politics do postmodern approaches to research animate? Though this is a query that is open to various perspectives, in this project I suggest that queered approaches to research can reveal points of greater connection and interaction across different areas of knowledge. In this vein, I borrow from Gildersleeve’s (2010) understanding of *fracturing narratives* by invoking Weis and Fine’s (2005) articulation of the term as indicative of “a disruption of normative and expected social behavior as represented in micro-, macro-, and mezzo-levels of analysis.” Yet, rather than articulating this fracture as one that is enacted in the analysis of the work, it is one that can also be enacted in the methodological choices that one makes.

In a recent anthology on *Critical concepts in queer studies and education* (2016), Jason Murphy and Catherine Lugg propose “scavenging as a queer methodology” (p. 369). Murphy and Lugg draw from Jack Halberstam’s (1998) earlier work, where he first proposed a “scavenger methodology” as a way of engaging a variety of disciplines, and amassing seemingly disparate documents and data in order to write about individuals who have been deliberately or unintentionally erased from traditional investigations (p. 13). I found a sense of resonance in this particular strategy as it enabled me to ask broad questions across a variety of archives and datasets, all of which revealed specific facets of a complex prism.

In the process of producing this dissertation, I have found promise in archival research, oral histories, computer coding, qualitative coding, web scraping, and bibliometrics renderings, all of which have served as fruitful opportunities to garner a deeper understanding of how communities of educational researchers speak, write, and think about social identities. By considering all of these various elements as a cacophonous symphony, I have delved into an exploration of how concepts of race and ethnicity have both manifested and shifted across distinct spheres—from policy documents, to data collection items, to educational researchers’ usage of these data.

Equally important, however, has been my commitment to using this investigation as a point of departure to engage in analyses of how these discursive practices around race and ethnicity can also teach us about the forthcoming ways in which our own practices of codifying sexual orientation and gender identity (SOGI) may shift in the coming years. As I outline in the coming chapters, the power of Hispanicity as a panethnic marker resonates deeply with the budding discourses on how we’re constructing narratives of transgender existence across multiple levels of research. The implications of this work mean that it provides an opportunity to build bridges across differences. Rather than insisting on the siloing of these social experiences, attending to the ways in which we speak, act, and research these identities in analog ways can help us see beyond the disciplinary confines to which we are often beholden.

My hope is that an eclectic selection of perspectives in a project can serve as a way for us to nurture coalitional politics for further research. I returned to much of my initial

analysis in late 2016, shortly after the conclusion of the U.S. elections where Donald J. Trump was elected as the next president. It is in times like these when I believe that the need for collaborative research is critically needed (Castro Samayoa & Nicolazzo, *in press*). Much of the work that we produce often reflects the politics of our time. It is not surprising, then, that the analyses that I offer in this dissertation are inflected with a heightened awareness for the need to have work that can resonate across multiple spheres. I will caution readers that this is not meant to detract from the rigor of the work. On the contrary, I invite readers to engage with this dissertation as an example of work conscious of the inextricable nature between knowledge-producing research practices and the context under which they are produced.

Methods

Overall, I conducted 60 oral histories over a period of 11 months. For Section II, I focused on individuals formerly and currently affiliated with both the National Center for Education Statistics and the Higher Education Research Institute. Their involvements within these organizations ranged from 1964 through the present (2016 at the time of their recordings). Recorded oral histories, on average, lasted about ninety minutes. In addition to these oral histories, I visited multiple archives and amassed relevant documents for further analysis. Both oral histories and document analysis provide suitable strategies to answer the primary research questions in this investigation:

Oral Histories. Individuals' recollections of the past can amplify the nuance with which we understand archival materials. Through oral histories, historians examine

aspects that are not otherwise captured within available written sources. Particularly when examining historical accounts of organization's actions, formal documents often undermine attempts to understand the inner workings of an organization. Thus, oral histories become rich sources that illuminate the complex processes that may elude researchers solely able to systematically analyze archived documentation. The oral histories in this project complicate current understandings of the data collection strategies as merely reflective of policy changes (in the case of IPEDS), or responsive to methodological best practices (in the case of TFS). Instead, these histories detail a robust network of individuals involved in institutionalizing new forms of understanding racial and ethnic identities within postsecondary data, and anticipating new ways of collecting data for increasingly visible markers of social identities such as gender and sexual minoritized (GSM) groups.

Document Analysis. Alongside oral histories, this project draws from an extensive archive of documents tracing the various modifications undergone within IPEDS and TFS since their inception. For IPEDS, I draw from federal archives, including congressional hearings, over 800 letters sent by the public during periods of open commentary for the interagency taskforce charged with revising statistical standards, documents from the Office of Management and Budget, as well as records from the National Archive's Federal Interagency Committee on Education. Additionally, some oral history participants shared personal ephemera from their tenures as employees within the National Center of Education Statistics, including personal speeches and committee

reports that would have been otherwise unavailable through archived repositories. For the history of the Higher Education Research Institute's TFS, I draw from the archival material on TFS housed at UCLA's Charles E. Young Research Library Special Collections, as well as electronically available documents on annual trends, and personal ephemera shared by participants, including public remarks, minutes, and written historical accounts from past HERI employees.

For *Section III*, I conducted a bibliometric analysis using data extracted from Clarivate Analytics. Clarivate Analytics indexes academic publications across a variety of platforms and provides the *Web of Science* (WoS) interface for researchers to explore connections across academic works in different fields. It was formerly run by Thompson Reuters before a merger in 2016 (Clarivate Analytics, 2016, n.p.). In total, WoS indexes "over 90 million records covering 5,300 social science publications in 55 disciplines" (The Citation Connection, 2016, n.p.). Currently, it indexes a category titled "Education & Educational Research" for which there are 231 indexed journals. Most often, the WoS services have been used to measure journals' impact in the field through citation metrics for specific articles in their publications. However, beyond this usage (which has been heavily criticized across various fields (Van Raan, 2005)), WoS provides a helpful, albeit partial, introduction to visualizing the field of educational research. In *Section II*, I describe how I manually curated a list of 21,069 articles from 11 journals categorized in Education & Educational Research by WoS. I selected journals by their focus on higher education (e.g. *Journal of Higher Education*) as well as journals that contained research

across various sectors of education (K-20+), such as *American Educational Research Journal*. I excluded journals specialized in methodological or topical areas (e.g. *Journal of Research in Science Teaching* or *Computers & Education*). Table 1 lists the journals under consideration, the years covered, and the number articles included for each of them.

Table 1. Journals included in bibliometric analysis

Journal	Years	Number of Documents
American Educational Research Journal	1964-2016	1,710
Educational Research	1958-2016	1,400
Educational Studies	1975-2016	1,186
Higher Education	1972-2016	2,402
Journal of College Student Development	1959-2016	4,612
Journal of Diversity in Higher Education	2008-2016	175
Journal of Higher Education	1956-2016	2,242
Review of Educational Research	1956-2016	1,625
Review of Higher Education	1994-2016	1,294
Sociology of Education	1956-2016	1,494
Teachers College Record	1956-2015	2,929

In *Section IV*, I drew data from two events: one of them a Technical Review Panel on gender hosted by Research Triangle Initiative on behalf of the National Center for Education Statistics on October 2016 in Washington, D.C. There, I observed the conversations between a group of around forty researchers and administrators interested in exploring whether IPEDS should change the ways in which the system collected and tabulated gender as a variable. I also conducted interviews with six administrators at a private, four-year private institution in the Northeast (East University, a pseudonym). Contrasting these two sites of conversation, I explore how discourses of gender are operationalized in the context of data collection practices.

Data Analysis. I approach analytical strategies through a series of iterative processes. I triangulate the contributions of oral histories with the evidence presented within the archived material to not only provide a chronology of events, but also to expand the accounts that have heretofore remained unexamined through official documentations. Much like qualitative methods, I identify broad thematic components through open-coding of oral history transcripts and detailed reading of the historical documents. I seek to cluster these themes in ways that answer the primary research questions to provide a thematic account in lieu of a purely descriptive chronological understanding of the histories of these datasets. In the subsequent sections, I am primarily guided by a close examination of how social identities are presented discursively throughout various texts (peer-reviewed articles) by mapping these terms and also tabulating the various occurrences of specific terms. Drawing from a genealogic

(Foucault, 1978) tradition, I focus my analysis on describing these various visuals and occurrences as insights into the practices that make-up academic discourse.

Section II: Producing Bodies of Data

A Closer Look at The Freshman Survey (TFS)

Changes in the demographic data collected in the TFS' items over the past fifty years reveal the paradox of longitudinal quantitative research: at once invested in the integrity of its data for panel analyses, as well as in tension with the shifting conceptions of racial ideas embedded within the instrument itself. Beginning with a short section on The Freshman Survey frames the subsequent narratives focused on federal data as it showcases the alternative strategies followed by smaller (albeit still nationally-representative) surveys in the face of the growing interest on modifying previous categories of race and ethnicity.

The history of what is now known as The Freshman Survey must be traced back to the work of one individual: Alexander "Sandy" Astin, now emeritus faculty at UCLA. Astin began the pilot for a national survey focused on U.S. collegians' attitudes in the early 1960s during his time at the National Merit Scholarship Corporation (NMSC) (Astin, 1997). Though the primary focus of today's TFS is on longitudinal trends of college students' moral attitudes, pre-college attributes, and general demographics, the original survey in the 1960s was focused on understanding the qualifications with which students began their collegiate trajectories. In effect, prior to the 1960s, there were no systematic studies exploring what we now understand as students' pre-college factors.

Astin had received his doctorate in psychology two years prior, in 1958, from the University of Maryland and had been hired by NMSC to develop the "student input"

survey which resulted in a project that amassed the responses of 128,000 entering freshmen at 248 colleges, each of whom had filled out 5"x 8" response cards. Having noted his performance in this project, the American Council on Education (ACE) hired Astin in 1964 as its research director at age 31. In his words, Astin's desire to pursue this new line of work allowed him to engage with a captive audience: "Well, who should know about these studies? The college presidents should know about them. And here was a sort of center of power in higher education - the College Presidents' Club! - Here was a chance to get the ear of the most influential people who were in a position to act on this research." (Astin, 1997, pp. 4-5).

Indeed, now nearing its centennial, ACE was founded in 1918 as an advocacy organization which now comprises the leadership of over 1,700 two- and four-year colleges, both public and private, and non- and for-profit (About the American Council on Education, n.d.). In 1965, Astin alongside the research team at ACE (primarily Robert J. Panos and John A. Creager) deployed the first survey pilot and would go on to publish the "National Norms of Entering College Freshmen, Fall, 1966" two years later, in 1967. In their estimation, the norms were a resource to the participating institutions to "provide a source of current, readily available information about the population of college students." (Astin, Panos & Creager, 1967, p. 1). But for Astin, the publication of the norms were derivative to the longitudinal aims of the study. As he explains:

"What happened is that we decided that as part of the deal - as a carrot to attract institutions - we would compute norms (initially we had little interest in the norms ourselves because we were doing longitudinal studies and this was

only the input data) to give some kind of feedback to the institutions. We didn't think that they would buy into the idea of waiting for six or eight years to get any feedback. We decided to give them something right away, which was a complete report by sex on their freshman, with norms for not only all institutions, but for similar types. This was kind of an afterthought that was built into the original invitation [to the institutions], but after committing ourselves to it we realized we had to produce a normative report every year. After we produced the report we got some complaints from some of the institutions that there were certain norm groups that we had left out. We got complaints from HBCU [Historically Black Colleges & Universities] colleges [*sic*] ("we don't want to compare ourselves with others - we want to compare ourselves with other Black colleges"); we got complaints from women's colleges ("we want to compare with other women's colleges"); that kind of thing. We got complaints from people in the South ("we've got nothing to do with the North"). In response to those complaints we produced what we called a "supplementary national norms." It was the only year (1966) that we had two normative CIRP reports. The supplementary National Norms are by region, by single gender institutions, and by race of the institution." (Astin, 1997, pp. 7-8).

The rising interest in CIRP's surveys was neither accidental nor solely the result of Astin *et al.*'s perseverance to increase their work's visibility. I argue that the growing interest in TFS is emblematic of the quantification of educational issues in the United States. By mid-20th century, social research's influence within the educational domain was inescapably manifested through the preferred methods used to address an increasingly complex landscape. Indeed, the confluence of psychometrics and policy serve as the keystone that bridged the shifts in the type of educational research supported and performed in the latter half of the 20th century. As Popkewitz and Lindblad (2000) have previously asserted, one of the primary issues in research examining the state of educational policies is the "unreflective incorporation of categories produced in political arenas into social research. Within the

conceptualization of research related to social inclusion, for example, the very definitions of the problem will vary as it relates to national welfare traditions of states.” (p. 8). They proceed to suggest that “Anglo-American literature tends to focus on concepts related to individual access which embody particular liberal constructions of individualism by relating the problem of inclusion to access.” (Popkewitz & Lindbland, 2000, p. 8). In effect, Astin’s recollection of the various institutions’ (e.g. Historically Black Colleges & Universities, Women’s Colleges, Southern Colleges, etc.) feedback on the first normative reports from 1966 echo Popkewitz and Lindblands assertion on the individualistic rationalities that are pervasive in Anglo-American conceptions of educational issues. Subsequent normative reports contained a variety of demographic information on students, including not only their sex, but also their race and ethnicity. Yet, for a survey interested in longitudinal trends, the ways in which demographic data have been asked evidence the complicated history (and, indeed, the ambivalence futures) of demographic data collection in the United States.

In 1965, TFS asked respondents to document their racial background by choosing one option: (1) Caucasian, (2) Negro, (3) American Indian, (4) Oriental, (5) Other. The one-response limit not only forced individuals to choose a single racial marker; the options themselves were reflective of the racial zeitgeist of the time at which the surveys were developed. And, therein, lies the methodological complexity of this issue. By 1971, the racial background question had been modified to signal a more complex way of capturing multi-racial and bi-racial respondents by asking respondents to mark

all the options that applied to them, as well as revising the racial categories available. Caucasian had shifted to “White/Caucasian”, Negro had been modified to include “Black/African American”, and “Mexican American/Chicano” and “Puerto Rican-American” had been added to the list.

Importantly, the new TFS questionnaire, albeit different from the 1965 version of TFS, was unlike other demographic prompts found in national surveys, like the 1970 Census decennial (Mora, 2014); these differences are testament to the disparate trajectories through which comparable social scientific research instruments emerged in tandem with each other. As other scholars have noted, the issue of racial and ethnic classifications within surveys are not unique to the educational domain; rather, they are symptomatic of the broader practice of demographic inquiry. Historian Margo Anderson has previously written about a scholarly need to examine “the tangled issues of the measurement of race and ethnicity and their use in the demographic analysis of the American population ... to understand how “counting by race” became part of American statistical traditions and, in turn, have influenced the controversies surrounding accuracy and fair representation that have bedeviled recent censuses” (Anderson & Fienberg, 1999, pp. 169-170). This research project continues Anderson’s call by specifically examining how methodological questions of tabulating social identities have affected the world of educational research, with a specific emphasis on postsecondary data. By focusing on the postsecondary field, I am able to not only trace the historical changes to ethnicity and race, but also explore how questions of sexual orientation and

gender identity (SOGI) have begun to be considered within this context given the general hesitance to add these questions for data concerning minors (Federal Interagency Group on Improving Measurement of Sexual Orientation and Gender Identity in Federal Surveys, 2016).

Like the TFS, the census question items focused on respondents’ racial identities, evidences similar shifts in the options available to its respondents (See Table 2).

Table 2. Racial Categories in U.S. Census

Year	Census Race Categories
1790	Free white males of 16 years and upward, including heads of families under 16 years Free white females, including heads of families All other free persons Slaves
1890	White; Black; Mulatto; Quadroon; Octoroon; Chinese; Japanese, Indian
1970	White; Negro or Black; Indian (Amer); Japanese; Chinese, Filipino; Hawaiian; Korean; Other (print race)
2010	White; Black, African Am., or Negro; American Indian or Alaska Native; Asian Indian; Japanese; Native Hawaiian; Chinese; Korean; Guamanian or Chamorro; Filipino; Vietnamese; Samoan; Other Asian (please print); Other Pacific Islander (please print)

In fact, the boon of emerging racial and ethnic categories reflected in the most recent U.S. Census (conducted in 2010) appear in the most recent TFS. What was once “Oriental” has now been corrected and disaggregated to include East Asian, Southeast Asian, South Asian, Other Asian, Native Hawaiian/Pacific Islanders as distinct categories within the TFS. And, yet, longitudinal trends using TFS data obscure these complicated

histories by reporting retrospective racial/ethnic data without accounting for these shifts.

Understanding the impetus for the disaggregation of Asian ethnicities is particularly notable within TFS. In recalling some of the more memorable changes to the configuration of racial/ethnic options for respondents, multiple participants remembered the attempts to introduce disaggregated options for Asian American respondents. In the TFS survey of 1996, question 20 asked respondents “Are you: (check all that apply)” listing “White/Caucasian”, “African American/Black”, “American Indian”, “Asian American/Asian”, “Mexican American/Chicano”, “Puerto Rican”, “Other Latino”, and “Other” as potential answers. The subsequent year, however, had a drastically expanded set of answers. Question 28 used the same prompt (“Are you: (check all that apply)”) yet had omitted “Asian American/Asian” and substituted it with five new options: “Chinese American/Chinese”, “Filipino American/Pilipino”, “Japanese American/Japanese”, “Korean American/Korean”, “Southeast Asian (Vietnamese, Laotian, Cambodian, etc.)”, and “Other Asian American/Asian”. Multiple participants recalled this as an important, though perhaps rushed, attempt to be responsive to the growing racial and ethnic diversity on college campuses. Interestingly, the momentum to change the survey had been started by one of the graduate students assisting the staff at CIRP. With a vested interest in acknowledging the diversity of Asian American respondents, a graduate student had proposed changing the options for the question to the director. The proposal was accepted as a way of exploring its viability. The outcome,

unfortunately, revealed that more respondents had chosen “Other” than in previous years, suggesting that the new options had confused respondents. The following year, the options had once again returned to the same list from two years prior. The willingness to entertain this change demonstrates the ease with which these forms of institutional change can happen. However, given that TFS functioned not only as a data collection instrument, but also as revenue generator where participating institutions relied on its trends also raised the stakes of enacting these types of change.

What distinguishes HERI from IPEDS is not only the primary unit of analysis of its survey components, but also the very structure through which it has organized itself. On first instance, this is perfectly intuitive: the National Center for Education Statistics is a federally mandated research arm that functions as a national aggregator. HERI, in contrast, is a longstanding research center with origins in the D.C. policy scene but whose future unfolded thousands of miles away on the West coast. Their distinct geographies and institutional homes—one federal, the other tethered to a specific postsecondary institution—dictate their notable differences.

One of the interviewees who had been involved with HERI for in the 1990s noted that there seemed to be two distinct spheres to understanding HERI—its operational sphere and its research sphere. As one might expect, the research components took center-stage amongst the graduate students who were receiving their quantitative training by using HERI’s data at UCLA. Through two courses, students had an opportunity to apply educational theories to undergird the questions that could be

asked of HERI's database. HERI's founder's I-E-O formulation—the closest postulation to Occam's razor in explaining the collegiate experience within the field—echoes throughout all respondents' impressions of what it meant to be trained through HERI's data. Astin had used TFS as the basis to further the premise that students' characteristics (I) alongside their environment (E) were critical in our understanding of their outcomes (O), and the majority of the coursework in the two courses offered detailed strategies to maximize the utility of TFS for these types of queries.

In addition to serving as a valuable tool for teaching and research, The Freshman Survey and, by the 2000s, HERI's other survey components—were, and continue to be, a revenue stream for UCLA. As a participant shared, there was also a need to recruit institutions willing to be participants for this survey. Though it had had its beginnings in the Washington, D.C. bubble with its prototype survey in 1961 HERI could no longer afford to conduct research without acknowledging its role as a revenue producer (Astin Correspondence, Box 3, Higher Education Research Institute Administrative Files, 1965-2003, U.A.R.S. 774, The UCLA University Archives). When peer competitors began to emerge, such as NSSEE, those who were closest to this development also began to explore alternative ways of creating products of appeal to institutions. Business and data collection are not unfamiliar bedfellows. But the proximity between these two has continued to grow stronger and, invariably inevitable over the past decades. This is not to say that HERI was not founded on principles devoid of the prospects of profit—indeed, as Astin remarked in his own oral history, one of the more notable things about

the pilot was that the survey was originally a low-cost investment for the institutions partaking in the project. But with shifting priorities amongst the foundations that had originally provided support for this endeavor, the burden of HERI's longevity fell on participating institutions' willingness to continue using this product. This, in turn, meant that HERI had to change its tune: pitching its relevance for accreditors, as well as developing products measuring the increasing demographic diversity of college campuses.

Exploring the changes in HERI's history reveals the complex nexus of finances, research, and knowledge-production. The changes witnessed in TFS's collection of demographic information reflects the flexibility of modifying an instrument geared for longitudinal studies when it is not beholden to the processes followed by other systems, like NCES's IPEDS.

So why is this important and what does it teach us about the nature of higher education? The development of TFS fits a growing need during a time of intense proliferation in quantified knowledge within educational research. Entrenched within these growing practices was also a demand for data-informed practices that could be connected for the specific needs of a single campus *and* compared with a broader sample. But rather than falling within the arms of federal purview, the organization that rose to the occasion was a small cluster of researchers housed within a small academic department at one of the largest public institutions in the nation. Like the story of the National Student Clearinghouse, the history of HERI's TFS is one that reminds us on the

potential value of federal research for the public good *and* the production of new knowledge.

Understanding Federal Data Collections

A note on informants.

I recorded conversations with eight of the individuals affiliated with the National Center for Education Statistics. In addition to these conversations, I also met with an additional twenty-two individuals throughout the course of this work to gather further information to guide my inquiry into the various archives and documents—a form of triangulation in qualitative frameworks (Saldana, 2012). Some of the respondents requested anonymity for the formal write-up, though the majority of the people with whom I conducted these ninety-minute conversations approved the use of their names. As a compromise, I have opted to use pseudonyms for all of the participants. As part of the recordings, I also invited six of the participants to sketch and draw organizational charts and timelines with milestones for NCES and IPEDS. The two who did not partake in this part of the exercise were conversations that took place over the phone. I integrate these throughout the analysis that I offer in this project. The historical context that I offer in this dissertation can be reconstructed through archival materials (public hearings, other published oral histories, speeches, etc.). Instead, the narratives offered by these individuals provide insights into the discursive practices of the individuals who worked within NCES. These were (and some, still are) civil servants whose range of tenure at NCES ranged from over four decades to less than five years. Their positions within NCES

also varied. Almost half of them had served in a capacity where they were charged with designing the instruments that were responsive to emerging legislation that required the collection of new items dictated by Congress. The rest were primarily overseeing the management of various data products emerging from NCES or a higher-level perspective given the seniority of their roles. Where appropriate, I offer further details on each of the participants, with the caveat that the particular conceptual framework in this work is in examining the tropes, logics, and discursive elements of the ways in which these individuals talk about race, ethnicity, and other social markers.

The Vicissitudes of Racial/Ethnic Data Collection

Coordinating efforts for federal statistical data collections were particularly important in the second half of the twentieth century. The President's commission on Federal Statistics issued a series of recommendations in 1971 that resulted in the creation of the Committee on National Statistics (Martin, Goldfield & Straf, 1982). The Committee was envisioned as "a body to encourage the appropriate use of statistical methods and to improve the statistical information on which important public decisions are based" (Martin *et al.*, 1982, p. 103). Among its contributions, the Committee was charged with issuing multiple revisions to the works of James S. Coleman on public and private schooling, particularly given that the report's inferences "were sensitive to the choice of analysis". Follow-up studies revealed that some of the claims which offered more promising outlooks for private schooling in the country "essentially vanished" (p. 104). The Committee's work was largely funded by support from federal agencies which

provided “a modest amount that in the aggregate enable[d] the committee to establish priorities, to explore new problems, and to develop new projects,” as well as a variety of private Foundations, including Russell Sage, Sloan, and the Charles E. Merrill Trust (p. 103).

Understanding the changes in federal racial/ethnic classification have largely focused on the ways in which these changes have affected the Census (Mora, 2014). However, the Census represents only one of the agencies affected by broader efforts to coordinate measurements of race/ethnicity across agencies. In fact, the impetus to create these standardized protocols emerged from conversations focused on issues of educational inequality. In April 1973, the Federal Interagency Committee on Education (FICE) Subcommittee on Minority Education issued a report, *Higher Education for Chicanos, Puerto Ricans, and American Indians*, which called attention to the lack of racial/ethnic data with the proper rigor that enabled comparisons across various datasets (Robbin, 2000a, p. 133). As Robbin notes, these criticism lead members of FICE to convene the FICE Ad Hoc Committee on Racial and Ethnic Definitions in June 1974 (p. 133). This was the first report to issue the recommendation of producing four standardized racial categories along with one ethnic category for Hispanics. Yet these “recommendations were not, however, arrived at by consensus” (p. 133).

In her extensive examination on the various methodological issues expressed by the Ad Hoc committee, Alice Robbin (2000) highlights the range of these disagreement; varying from whether the data had to be collected by means of “self-identification or

observation by a third party,” to issues with which “nationality to include in a category, because the categories were, by and large, formulated to identify persons by geographic location” (p. 133). Despite these disagreements, the committee issued its Revised exhibit F to OMB Circular No. A-46 — what has since been shorthand to Statistical Policy Directive 15 in 1977. The policy adopted the recommendation of the four racial categories and one ethnicity as a *minimum* standard for racial collection (see Robbin, 2000, pp. 133-134 for an extensive discussion on this implementation). Yet, these standards were received with skepticism and an ongoing reluctance to accept the methodological deficiencies furthered by these standards. Further, grassroots activists (particularly those with a vested interest in making individuals with more than one racial identity visible in these data collection protocols) levied a charge against these protocols since their inception.

It would take until 1993 for formal changes to begin rolling out. As Robbin (2000) notes, “[d]uring the first session of the 103rd Congress, in 1993, the House Subcommittee on Census, Statistics and Postal Personnel, chaired by Representative [Thomas] Sawyer [D-OH], heard four hearings to review the status of the racial and ethnic group categories” (pp. 136-137). In 1994, the OMB issued a further call for feedback on these categories through a formal announcement in the *Federal Register*, where it also gave notice of three public hearings (Robbin, 2000, p. 138). A fourth hearing, in Honolulu, HI, was added after the publication of the notice on the *Federal Register*. Ultimately, the outcome of these conversations yielded changes that did not

disrupt the broader system of categorization. The changes resulted in a new category (Native Hawaiian or Other Pacific Islander), the inclusion of Latino as a marker of ethnicity, and most significantly, the ability for respondents to select more than one racial identifier.

Elsewhere, Robbin (2000b) has argued that the contentious changes to these measurements are evidence that official classifications function as symbolic systems wherein these nomenclatures “help explain the way the world is and how people see that world and shape interpretations of history, preferences, and commitments to action,” yet these same systems can also “provoke political controversy when the symbolic universe of language opens up to permit new conceptions of identity” (p. 400; 401). Specifically, Robbin called attention to the ways in which the reclassification of Native Hawaiians in the American Indian and Alaska Native category, as well as the potential (albeit, ultimately failed) attempt to add a “multiracial” category was largely due to the “basic struggle [...] over public policies that allocated and redistributed material and symbolic resources” (p. 422). In the forthcoming sections I expand on Robbin’s symbolic analysis by exploring the discursive formations of these identities within the realm of education. In addition to Robbin’s arguments, I suggest that a deference to quantitative epistemologies is also critical to our understanding of how discourses of social identities circulate within policy spaces. Thus, the confluence of resources—material and symbolic—as well as disciplinary conventions were the regulatory forces that dictated the outcome of these conversations.

Data Collection and the National Center for Education Statistics

In this section, I detail how the OMB's changes to the collection and reporting of racial and ethnic data affected the postsecondary data collection within the National Center for Education Statistics. First, I present an overview of the National Center for Education Statistics with the broader context of the state of educational research within the federal government. As I suggest, some of the anxieties over these changes within the educational realm were not just about compliance to emerging standards, but also about ensuring that the perceived quality of educational research was sufficiently rigorous in the midst of long-standing criticisms on the value of this vein of federal research.

Historian Carl Kaestle's 1992 report *Everybody's been to fourth grade: an oral history of Federal [Research & Development] in Education*, offers insiders' perspectives on the issues that plagued the federal arm of educational research throughout the 1970s and into the 1990s. Based on 33 oral histories that he conducted in 1991, he proposes a variety of reasons for the consistent disdain for the quality of educational research. Emerson Elliott, who had served as director of the National Institute for Education (NIE; a precursor of the contemporary Institute of Education Sciences), commented that his transition in 1972 from the Office of Management and Budget to NIE had been striking given the lack of "knowledge base built on cumulative lines of work" (p. 15). As he elaborated, in the sciences (such as the National Institute of Health (NIH), with whom he had worked during his time at OMB), there was a sense that research "was cumulating

into something” (p. 15). In contrast, Kaestle points out that the “lack of such conviction,” in education “discredited the whole enterprise,” because “the agendas seemed simply driven by various presidents’ programs” (p. 15). Summarizing the variety of narratives collected, Kaestle identifies four main perspectives explaining the systemic deficiencies in educational research: the lack of pay-off from the outcomes of the research; the consistent pitting of funding for research against education programs; the perceived disarray of the Research & Development (R&D) education community; and, the politicized nature of the field (pp. 29-34). The disarray, in particular, was exacerbated from the ongoing discourse about the simplicity of the work in the field of education. It is no accident that Kaestle’s title for his report gestures to the popularized notion that, since most have gone through the fourth grade, everyone thus intimately knows the education system and how to ‘fix it’.

Elliott, who would serve for over a decade as the head of the National Center for Education Statistics at varying points of his career, would later add to the running list of challenges faced by the state of research in education. In a speech to the staff of NCES in 1995, he would also remind them that it continued to be “essential that an agency [like NCES] maintain credibility for itself and for its data and information. In particular, an agency must be perceived to be free of political interference and policy advocacy.” The theme of the politicized nature of data and research is, indeed, a prominent theme that forms an undercurrent in all of the these documents. Even years later, in his prepared remarks for the 2011 AERA Distinguished Public Service Award Lecture, Elliott would

return to the issue of politics, research, and data by sharing some of the perspectives held by “NIE staffers, still in Washington, who meet for lunch several times each year,” and who regarded that since “it was all about politics,” educational research continued to be disparaged given how “education policy is treated narrowly as a distraction from tough issues like health and poverty conditions” (p. 10).

The National Academy of Education’s Committee on Educational Research published *Research for Tomorrow’s Schools: Disciplined Inquiry for Education* in 1969, a report edited by Lee J. Cronbach and Patrick Supes, but whose content had also been stewarded by the likes of James S. Coleman, Calvin Gross, and Lawrence Cremin. The report offered a comprehensive review on the history of educational research, citing the advent of scientific empiricism around the turn of the 19th century, when “John Dewey established his laboratory school at the University of Chicago, and when Joseph Mayer Rice and Edward L. Thorndyke began to make their contributions,” into the field that began to embrace more positivistic inquiries into the benefits of education (Johanningmeir & Richardson, 2007, p. 40). In her 1970 review of the report—published in the *American Educational Research Journal*—Geraldine Jonçich Clifford fittingly foreshadowed the potential utility of this work by commenting:

Perhaps the greatest utility of this Academy Committee report on educational research is for historical purposes. Early in the report, the Committee refers to the landmark, *The Scientific Movement in Education* (NSSE, 1938), as a useful account ‘of the accomplishments and aspirations of [past] educational research,’ but deficient in not attending ‘to the organization of research nor to the conditions that cause significant investigations to flourish.’ *Research for*

Tomorrow's Schools attempts to do the latter. Its authors are credible witnesses to history, sophisticated insiders competent to suggest to future historians of education an (oftentimes covert) *awareness that educational research in the late 1960's was menaced by new monsters: the insidious requirements of grantsmanship, the muddled U.S. Office of Education* and the dawning effects that giant education-industries might exert upon the tradition (and troubled but tenable) lines of relationship between schoolmen [*sic*] and educationists (pp. 470-471; emphasis added).

How prescient it is to revisit the words Clifford shared 57 years ago. For seasoned and emergent researchers, it makes sense to realize that the “new monsters,” of which she wrote have neither abated nor diminished in their terror, but rather, become fixtures of the nature of contemporary educational research. Clifford’s perfunctory remark on the “muddled U.S. Office of Education,” reveals another notable insight on the condition of educational research in the late 20th century: one where the relationship and regulations between federal rule held a peculiar influence on the type of research that could garner support from the federal government’s funding.

In 1986, a panel evaluating the National Center for Education Statistics published its set of findings in a small purple booklet titled *Creating a center for education statistics: A time for action*. Various participants in the oral histories that I collected for this project talked about the shockwaves sent across NCES by this booklet of little more than 70 pages. The panel was chaired by Vincent P. Barabba, executive director of market research and planning at General Motors, and was supplemented by fifteen other members, most of whom were researchers affiliated with national universities.

Christopher Jencks who at the time was at Northwestern University and Andrew Porter, who served at Michigan State University were two of its members. The outcomes of the report had created a mild panic largely because it followed on the heels of the 'A nation at risk' report issued in 1983, and drew from it to indict NCES by suggesting that "if, indeed, the 'nation is at risk' in the area of education, it is past time for those in positions of responsibilities to acknowledge the risks and dangers of perpetuating the myriad and continuing problems of the center [...] we [members of the panel] are unanimous in our conviction that serious consideration should be given to the more drastic alternatives of abolishing the center and finding other means to obtain and disseminate education data" (p. 4). The committee that produced this report had first convened two years prior, in 1984 within the National Academy of Sciences and under the auspices of the Office of the Assistant Secretary for Educational Research and Improvement of the Department of Education. As stated in the report's introduction, the need for this assessment was borne from "the expressed concern that the center [NCES] had lost the confidence both of those providing data to it and of those who used its products, that the quality of its products had declined, that it failed to provide its data in a timely fashion, and that its interpretations of those data it did provide were flawed" (p. 1).

One of the more notable incidents highlighted by the evaluative panel focuses on actions that extend beyond NCES itself. In early 1984, the Secretary of Education directed NCES, "over the objections of both the center and the Assistant Secretary for

Educational Research and Improvement, to provide the American Association of University Professors with a tape that contained both incomplete and not fully edited data on salaries and tenure of staff in colleges and universities, collected as part of the Higher Education Information Survey (HEGIS)” (p. 19). Incompetence notwithstanding, this particular incident highlights the reliance upon which members across various sectors relied on the statistical content collected by NCES. The various instruments developed by NCES, including HEGIS (the Higher Education General Information Survey) which was IPEDS’ predecessor until 1986, provided population-level perspectives on the state of postsecondary education in the country. The heavy reliance on the products disseminated by NCES underscores the importance of understanding the processes that lead to the inclusion and exclusion to various elements of data collection.

As Johanningmeier & Richardson (2007) suggest in their text *Educational Research, the national agenda, and education reform: A history*, “when Congress enacted the No Child Left Behind Act (Public Law 107-110) and its approval of the reorganization of the office of Educational Research and Improvement (OERI) into the Institute for Education Sciences (IES), the ‘slow turn toward medical-style randomized studies,’ that began in the Clinton administration was ‘greatly accelerated’ (p. 71). But as they also point out, the impetus for reorganizations like the transition from OERI into IES were part of attempts to close the “achievement gap,” across different student populations across the K-20 pipeline; Acts like NCLB, “require[d] that test scores [had] to be disaggregated by race and ethnicity” (p. 72). Since the government was invested in funding emerging

quasi-experimental research at the turn of the 21st century, the Department of Education had already participated in a long history of amassing data on the students across various educational sectors in the United States. As I demonstrate in later sections, the decisions that were made at the federal level not only had a trickle-down effect into the everyday operations of the statistical arm of the department of Education, but also left lasting repercussions into the optics that we have used to assess educational equity in the United States.

The period following the reviews of NCES in the 1990s followed times of expansion in educational research. After the release of the NAS panel's report, "Assistant Secretary [of Education] Chester "Checker" Finn and Emerson Elliott, the future first commissioner of Education Statistics, revamped NCES into a strong statistical agency," according to a review offered by Maris Vinovskis (2009, p. 57). Vinovskis, the noted historian of federal educational research, had previously served as a reviewer of the quality of educational research emerging from the various regional laboratories associated with the Office of Educational Research and Improvement (OERI) in the early 1990s. He published a report with findings in 1993 claiming that "given the unequal quality of applied and development research that has been encountered in this investigation, more emphasis needs to be placed on the quality of the work produced" (Vinovskis, 1993, as cited in Vinovskis, 2009, p. 59). Few other bodies of research have come under such persistent attack than educational research. Years after her review of the 1969 National Academy Education's report, Geraldine Jonçich Clifford would publish a book co-authored with

James Guthrie arguing that the insistent derision of education was largely due to systemic gender biases that rendered education as inherently feminized and thus, less worthwhile (Jonçich Clifford & Guthrie, 1988).

Contemporary NCES

In its contemporary iteration, NCES has not been without critics. Within its purview, NCES “collects, analyses, and disseminates education statistics at all levels, from preschool through postsecondary and adult education, including statistics on international education” (Donovan, 2016, p. 29). In addition to the Integrated Postsecondary Education Statistics, NCES oversees a variety of products, including the Common Core of Data, the National Postsecondary Student Aid Survey, the Early Childhood Longitudinal Study, the Trends in International Mathematics and Science Study, the Program for International Student Assessment, the Statewide Longitudinal Data Systems, and the National Assessment of Educational Progress, which is considered NCES’ “primary tool for assessing what American elementary and secondary students know and can do in academic subjects” (Donovan, 2016, p. 29). In FY 2016, NCES had a staff of 129, 29 more staffers than in FY 2015, but only 8 of whom were permanent full-time staffers. A fifth of the staff are statisticians, with less than 10% trained as economists, and five research scientists (Donovan, 2016, p. 78). NCES belongs to one of the 127 agencies in the U.S. government that constitute a “highly decentralized statistical system,” of which 13 constitute the principal Federal statistical agencies (Donovan, 2016, p. 4). Despite this decentralization, these agencies are regulated by the

Office of Management and Budget's (OMB) Office of Information and Regulatory Affairs (OIRA) which was granted authority to oversee the agencies under the 1995 reauthorization of the Paperwork Reduction Act of 1980. As such, all changes within these agencies must be approved by OMB and, in turn, they must also follow the established "statistical policies and standards," that are compiled by OIRA's Statistical and Science Policy (SSP) Office (Donovan, 2016, p. 5).

The workers of NCES provide an unusual confluence of discourses: they invoke the regulations set forth by governmental bodies (e.g. congress) while also infusing the methodological standards of their training (e.g. concepts of objectivity and statistical validity) to an inherently sociological phenomenon (e.g. race/ethnicity). These discourses circulate beyond the federal domain and are (re)used and (re)produced in other spheres of educational research—both in academic and institutional spaces. The case for analyzing the discursive practices around social difference in these complementary spheres of educational research can help us shed light on how we are to understand the complexity with which we can speak about social differences in educational arenas.

The Integrated Postsecondary Education Data System was one of the multiple bodies within NCES that had to coordinate the changes in racial/ethnic collection after the issuance of revised standards in 1997. As an ancillary of the Department of Education, NCES had seen multiple homes and interactions, though its focus on assembling statistics on the state of education in the country predates to the origins of the first

Department of Education in 1869 (Fuller, 2011, p. 5). The National Center for Education Statistics was established in 1974, formerly the Division of Educational Statistics in the Bureau of Educational Research and Development in what used to be the Department of Health, Education, and Welfare (itself created in 1953). It was then folded within Office of Educational Research and Improvement when the new Department of Education was established in 1979 (P.L. 96-88). And, again, changed its home when it was folded within the Institute of Education Sciences—its current home—through the Education Sciences Reform Act of 2002. IPEDS represents the census of all information that institutions are required to report by law. It is composed by a collection of survey components (now 12 different instruments) that are collected throughout the year. All institutions that partake in federal financial assistance programs authorized by Title IV of the HEA of 1965 (as amended) are required to partake in these surveys.

When OMB issued the revised standards for race and ethnicity, in 1997, it gave agencies a time period to incorporate these changes, in effect, “OMB directed all changes to be effective ‘as soon as possible, but not later than January 1, 2003’” (Renn & Lunceford, 2004, p. 756). Yet, NCES was the second to last agency to incorporate these changes (the last one being the Equal Employment Opportunity Commission) according to Katherine Wallman, chief statistician of the United States (personal correspondence, 7 July 2016). The delayed manner with which NCES integrated these changes within IPEDS provide a rich example that helps us understand the logics and discourses that enable institutional stopgaps. Particularly, some of the narratives describing these issues

reflect how the nature of the changes specific to race and ethnicity resulted in responses that one might not anticipate from other types of revisions. As the various oral histories and archival documents suggest, there are four reasons that we can use to understand the delay in which these changes unfolded and, indeed, how they affected institutions of postsecondary education across the nation. First, the chain of events to enact change within the NCES impeded a quick turn around. Beyond the bureaucracy, which was common across all of the agencies, the structure for feedback within NCES provided insights into the deference to expertise at the expense of community feedback in order to incorporate these changes. A second reason that slowed the turnaround was the perceived “uniqueness” of IPEDS as an administrative system, a way of thinking about IPEDS as a dataset which was difficult to communicate to other agencies and which, ultimately, created specific burdens to institutions that had to incorporate these changes. A third reason for these changes was the lack of internal consensus on how these changes should be enacted (or whether they had to comply with them at all!). Lastly, a close examination of the timeline to incorporate these changes was influenced by the perennial tension between methodological conformity and social responsiveness.

The value of expertise

NCES, like any organization, follows a specific chain of command. In its most current iteration, the division for postsecondary education is housed within the postsecondary branch of the Administrative Data Division overseen by the NCES’ Commissioner. IPEDS, as a datasystem from NCES, is separate from other well-known products, such as the

sample surveys (e.g. National Postsecondary Student Aid, Beginning Postsecondary Students Longitudinal Study, Baccalaureate & Beyond).

In its attempt to include constituents in the process of evaluating any potential changes to IPEDS, NCES holds Technical Review Panels (TRP) which consists of up to sixty experts in the field who share their insights on prospective changes to the data collection protocols. As Doris, one of the participants who had been affiliated with NCES during the early 2000s, explained, there were multiple avenues through which NCES received feedback prior to making any changes. Technical Review Panels are, in fact, seen as an attempt to incorporate feedback from the community, though the invitation to these is selective and based on participants' areas of expertise. Doris produced the diagram seen in *Fig. 2* in response to my question inviting her to explain the sources that influenced change within IPEDS. As Doris shows, TRPs are a central component to collect the information for any changes prior to submitting documentation that needs to be reviewed by the Office of Management & Budget, as well as published through the Federal Register for two waves of commentary from the general public. Later in this section, I examine the public commentaries for a recent guideline for change issued by OMB. In *Section IV*, I write at length about the discourses of change in a TRP focused on prospective changes to gender data collection.

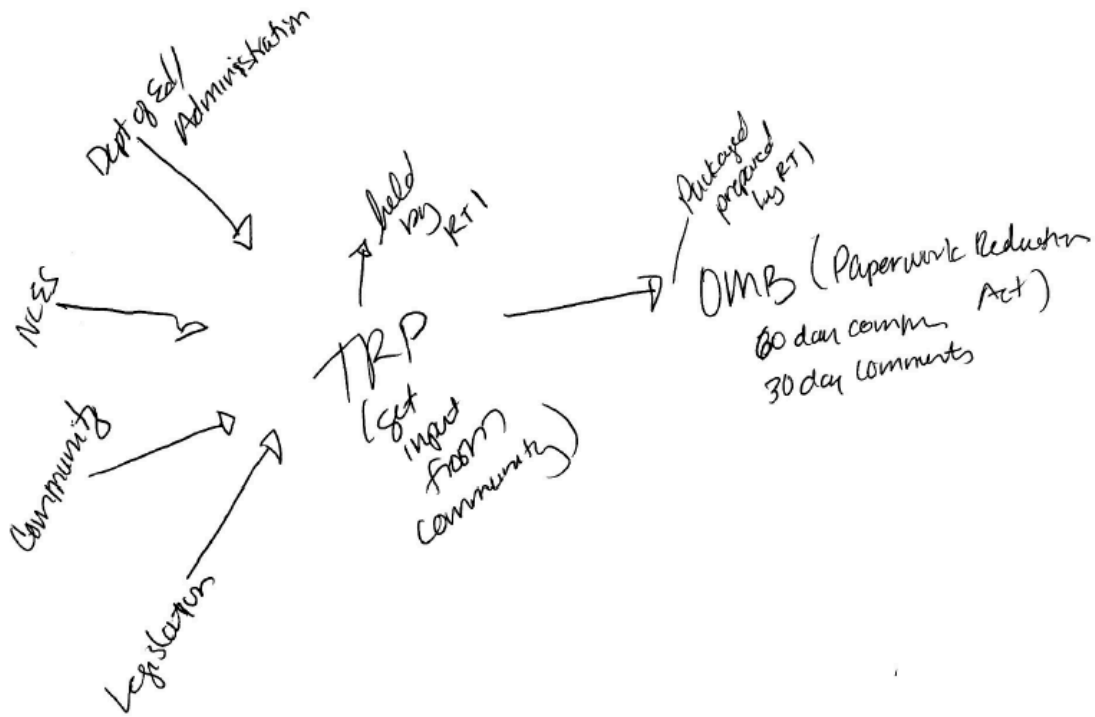


Figure 2. Diagram produced by Doris

On November 13th and 14th of 2006, 64 individuals met to review the standards that the Department of Education had proposed in response to OMB's 1997 standards under the auspices of Technical Review Panel (TRP) # 17. The outcomes of this meeting detailed the projected the timeline for implementation of these changes to data collection across all postsecondary institutions, suggesting that "institutions [would be] encouraged to make the transition to the new racial categories for the 2008-09 IPEDS Collection Year in conjunction with their state reporting systems, as appropriate." The suggested changes that emerged from the TRP contradicted an earlier report issued by

the Taskforce for IPEDS Redesign which had issued its final report in 1999, two years after OMB's new guidelines for race and ethnicity. In the report, the Task Force had recommended that "among many possible combinations, we recommend that NCES adopt the 16 race/ethnicity categories recommended by the NPEC/NCES/NSF Policy Panel on Racial/Ethnic Reporting to report aggregated data" (Peng *et al.*, 1999, p. 26). As *Fig. 3* shows, the variety of combinations were an attempt to remain responsive to the "very large" racial categories available to respondents of the various surveys that constitute IPEDS.

1. Nonresident aliens (U.S. citizens and resident aliens)
2. Unknown race/ethnicity
3. American Indian/Alaska Native only
4. Asian only
5. Black/African American only
6. Native Hawaiian/other Pacific Islander only
7. White only
8. Hispanic/Latino only
9. Hispanic/Latino and one or more races
10. Non-Hispanic and more than one race
(Computed unduplicated total count [sum of 1 through 10 above])
11. American Indian/Alaska Native alone or in combination
12. Asian alone or in combination
13. Black/African American alone or in combination
14. Native Hawaiian/other Pacific Islander alone or in combination
15. White alone or in combination
16. Hispanic/Latino alone or in combination

Categories 11 through 16 are for reporting maximum counts of individuals with a particular racial/ethnic background. For example, white alone or in combination includes all individuals who report “white only” and white and any other race/ethnicity. (NCES Taskforce, 1999, p. 26)

Figure 3 Proposed racial/ethnic categories by NCES Taskforce (1999)

Ultimately, this recommendation failed as the Department of Education had suggested another form of categorizing race and ethnicity when they published their recommendations in the *Federal Register* in October 19, 2007 (72 Fed. Reg. 59267). The new guidelines stated that “when reporting data to the Department [of Education], educational institutions and other recipients will report aggregated racial and ethnic data in seven categories,” which included Hispanic/Latino of any race; and for

individuals who are non-Hispanic/Latino only, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, and two or more races. In retrospect, the counsel provided by the members of the Technical Review Panel in 2006 was the same as the final decision issued by the Department of Education a year later. Implementing these changes, however, were preceded by a number of potential obstructions and complexities that delayed the design and implementation of these modifications. Below, I review three themes emerging from the various oral histories helping to explain the delays in incorporating these changes within IPEDS.

The uniqueness of administrative data

Among the reasons warranting the cautious roll-out of these new standards for race and ethnicity, members of the TRP mentioned the uniqueness of IPEDS as an administrative system. As the final summary of Technical Review Panel # 17 mentioned, all postsecondary institutions had to “determine whether to, and if so, when they will re-survey students and employees, including whether this will be a one-time re-survey or make it part of all future registrations.” (RTI, 2017, p. 4). One of the participants in my oral histories, Dana, recalled the particular difficulties of advocating for the complexities that these changes had on a system like IPEDS. As she stated,

I think the government’s big misunderstanding about race and ethnicity was just how complicated it was going to be if you have institutions make the change. From a survey perspective of individuals if you had the simple categories and you reported out however many applied to you. Institutions were going to have to

report out any number of ways depending on whether the government actually got its act together.

Sara, another NCES affiliate who had worked with IPEDS further explained that even internal reorganizations within NCES were influenced by the way in which IPEDS differed from other products. In speaking about the differences between IPEDS and other data products produced by NCES, she mentioned:

Post-secondary ed [*sic*] is very, very different in structure than elementary and secondary ed. So I think [working together] has been harder [...] Administrative data is much more similar in the way it can be released versus sample survey data which has to have, what are those things called, it has to rereleased with, I can't think of the word, confidentiality whereas our data are just public.

The uniqueness of IPEDS was that it functioned as a running repository of students, staff, and faculty across all institutions. Given that these constituencies remained on campus for extended periods of time, and were counted in surveys across multiple years, institutions would have to resurvey all of their respondents. This, in essence, posed an institutional burden that was peculiar from other data sets.

Seeking consensus

Representatives from IPEDS were charged with guiding institutional researchers through the changes for racial/ethnic demographic reporting. Doris explained how the traditional meetings during national academic conferences where representatives usually offered minor updates to IPEDS were converted into workshops specific to the racial/ethnic changes:

We knew we wanted to do a lot of training with it. That's why we did specific sessions on doing this because it was a major thing [...] We knew this was a huge thing for schools so we had to go in depth and do sessions specifically devoted to that [...] Again, we did our best to take into account the burden on the institution.

Offering a coordinated front for the implementation of these changes does not account for the more nuanced tensions that emerged within NCES itself. Dana, for example, recalls how:

There were a number of people who wanted to get rid of the whole idea of collecting data on race. Some thought that as long as you're collecting the data then it can be used against people as well as to help people. It didn't have much traction but it helped to slow the process down [...] Then the argument was 'Well, how brief can we make it and have it still be useful versus how many little pieces of information do we have to have where they are zero or one, if you see what I mean...

The trope of "doing away with race," was by no means new. And, as I will evidence in a later section, continues to be invoked by those who are reluctant to center the collection of these data in the name of furthering equity in education.

Like NCES, other areas from the Department of Education were also affected by these data collection standards, though these do not form the focus of my project. It is worth noting, however, that the lack of consensus over data on race and ethnicity extended beyond the walls of NCES. Igor, who had been affiliated with NCES in the early 2000s, commented on some of the discussions with The Office of Civil Rights in the Department of Education. In Igor's view,

The Office of Civil Rights says that they collect the Civil Rights data collection in order to monitor, to look for violations. So under their authority to basically be the Civil Rights police with data. All the people that did the system if you talk to them they will admit to you eventually that they have never used the statistics in those data collections to identify wrongdoing [...] They use them in a way that anybody else uses statistical agency data. So I would always argue that 'We [NCES] can collect these for you [OCR] and they would be much higher quality.' We'll still hand them to you and you can do whatever you want with them but I don't think you have the authority to collect data and I don't think I have the authority to put out reports about data, which they did. So for PR they would put out—at that time, it was biannual—but the Civil Rights data collection statistics show this or that and they didn't have the expertise. They wouldn't be weighted properly, the data didn't make sense.

In Igor's estimation, the primary issue with these data on racial inequities were the persistent methodological shortcomings committed by their peers in the Office of Civil Rights division, an issue which I explore further in the next section. Igor's response, however, also underscores the politicized nature of data, not only in its production, but also in its dissemination. He regards the Civil Rights' data on racial disparities an attempt for "PR" [Public Relations] primarily on the grounds that, since the methodology followed was not rigorous, the primary reason to share these data were to garner attention. In doing so, Igor calls attention to the complicated webs of political bureaucracy that data travels throughout the federal system.

Striving for methodological rigor

Despite these various hurdles, what the delayed timeline to implement these changes within NCES serve as an emblematic case of the ongoing tension between the methodological rigor of social scientists and the quandary of capturing the constructs of social identities like race and ethnicity. At a hearing in 1997, shortly before issuing the

final recommendations from the OMB, Sally Katzen, a representative from the office offered testimony for a subcommittee of the Committee on Government Reform and Oversight. In explaining the rationale for OMB's changes, Katzen cautioned that it was

Important to make clear what OMB is doing and not doing in carrying out its responsibilities under the Paperwork Reduction Act for standards and guidelines for classifying statistical data. OMB's role is not to define how an individual should identify himself or herself when providing data on race and ethnicity. Rather, we are trying to determine what categories for aggregating data on race and ethnicity facilitate the measuring and reporting of information on the social and economic conditions of our Nation's population groups for us in formulating public policy. In arriving at a decision, OMB will need to balance statistical issues that relate to the quality and utility of data, the Federal needs for data on race and ethnicity including statutory requirements, and social concerns (1997, p. 10).

Katzen's remarks capture the ongoing pursuit of the elusive "balance" between methodological questions that enabled the continuity of trend analyses for statistical data, as well as its own responsiveness to shifting demographic trends in the country, alongside a growing group of grassroots activists that had succeeded in bringing persistent issues of invisibility to the fore. This sentiment was echoed throughout the various conversations with NCES representatives, many of whom also articulated their concerns about the tipping point between methodological soundness and receptiveness to changes in social identities. Comparing race/ethnicity and measures of sexual orientation, Dana commented:

Race and ethnicity it's [*sic*] how you perceive yourself. You might perceive yourself differently over time but it's not a physical thing so much whereas the [*sic*] LGBT people transition. So you may be one thing but then you may realize you really aren't or should be more or all these different things that are. You can be something at one point and then literally be something else at a different

point. It's not just a self-perception thing. It's almost like immigration status and if you're a citizen or something [...] So you need to have something that's valued and understood generally by people who are members of the [minoritized group] community as well as those who aren't, something that's useful [...] The whole idea is to have, to be able to have access. The way you perceive yourself or the way you are perceived causes you not to have access and opportunities and we need to fix that, right. But then how do we collect information if, well, when you apply for college you might have been something and now you've come all the way out or you may be actually in the process of having, changing your sex. So how do we have longitudinal data on this person without, yeah.

Doris' comprehensive response is particularly revealing. She simultaneously compares notions of sex, gender, and racial formation as connected, albeit fundamentally different in their fluidity. For Doris, LGBT identities seem to have a temporal subtext that is absent in racial identities; she invokes the image of being out (presumably in reference to one's sexuality), as well as "having, changing your sex." Fundamentally, Doris' observation is about the differences between self-perception and others' perception of our identities. As she rightly points out, "the way you are perceived causes you not to have access and opportunities." Yet in claiming this level of nuance, Doris also falls into the trappings that presume the stability of any one of these identities; in her case, she contrasts the perceived stability of racial identities with gender and sexual identities. Herein the *governmentality* of which Foucault speaks, coalesces with ideas of social identities. It is precisely out of the drive to quantify and categorize that these methodological tensions arise and persist. In this vein, it is not surprising to hear Doris' ease in comparing identities attached to citizenship status, racial orders, sexual and gender identities in a single response. Conceptually, for a

demographer like her, these identifiers provide methodological challenges rather than embodied ones. In other disciplinary traditions, Doris's remarks echo the complex ways in which social enclaves understand racial and ethnic identity. As Wendy Roth (2016) documents, there are at least six ways of documenting race—ranging from perceived race, to racial identity, and self-identification, among others. Doris's remarks call attention to the inherent limitations of producing datasets that narrowly collect information on self-identification of race without remaining attentive to the others ways in which racialized projects unfold in everyday life.

Despite striving for methodological rigor, there were instances where the protocols followed at institutions betrayed the very utility of these approaches. Quentin, an NCES employee who had formerly worked in institutional research at a private institution shared one anecdote during his time at the institution that captured this:

I worked at a university and when we had to do it [transition to the new racial/ethnic reporting standards] I looked at the data and found that for a term in one of the registrar's offices 100% of the ethnicities were coded. That doesn't happen in administrative records at a student unit level. So I called over there and I asked the registrar how did you get all of the ethnicities for your students because [name of institution] would have multiple colleges and so you have multiple registrars. He said, 'I don't know; I'll go ask my person,' put me on hold. Came back and kind of sheepishly said, 'Well, I found out how we did it. It appears that when an ethnicity was not provided this staff member assigned one.' Just eyeballed it. You're this, you're that, you're that. So I said 'Well, what are we going to do?' And he's like, 'I don't know. Are we going to go back and undo these? Do we notify the students that we've mislabeled them?' That was just one college. There were seven undergraduate colleges at [name of institution]. They all did very bad things to get the ethnicities assigned for the free kids who didn't provide it at the end. I'm sure that happened across the industry because we would talk to each other.

In an oblique way, Quentin’s response echoes Doris’ ideas of the plasticity of identities. The anecdote that Quentin shares reveals the underbelly of data collection strategies—it calls attention to the ‘dirty data’ that is outputted when respondents (in this case, institutions) follow disparate protocols. It is particularly telling, however, to see that the random assortment of students into a variety of racial identities happens in a haphazard manner. The need to comply with reporting these data is undermined by the disregard with which the data are collected in the first place.

In synthesizing the various reasons that led to the delays for NCES’ implementation of the new directives issued by OMB, participants of the narratives I collected also evidenced the precarious territories that social identities inhabit in these data collections. These social identities are simultaneously fluid and enduring and the methods to collect them are seemingly rigorous and random. The uncertainty of these measurements provides us at best, the approximations necessary to report on the “social and economic conditions of our Nation’s population groups for us in formulating public policy,” as Katzen told the U.S. House of Representatives during her hearing. And, in doing so, they also ensure the longevity of data collection systems that aim to capture—with varying degrees of success—the inherent instability of racial identities. In mandating the collection of certain identities, some of the identities are summoned into existence, whereas others remain hidden from recognition.

Forthcoming changes?

The domino effect that followed the 1997 guidelines for race and ethnicity was slow, but eventually all of the pieces fell in their place. The issue was dormant for twenty years—at least from the federal vantage point. In this section, I trace the contours of current discourses focused on forthcoming changes to the racial and ethnic markers that OMB has been using for the past twenty years, since the publication of the revisions in 1997. Specifically, I explore the bevy of public comments uploaded in response to the issuance of a new notice in the *Federal Register*. I argue that the rhetoric employed by public respondents to these potential changes parallel the discursive strategies that were used twenty years prior.

The upcoming 2020 census provides an opportunity to explore new changes for the federal governments' standards on race and ethnicity. The Office of Management and Budget issued a call for public responses through the *Federal Register* on September 30, 2016. The last time the OMB had issued any such recommendations had been twenty years prior and had set off a cascading series of changes that affected all federal statistical agencies. In the most recent notice in the *Federal Register*, OMB stated it was “undertaking a review of particular components of the 1997 standard: The use of separate questions measuring race and ethnicity and question phrasing; the classification of a Middle Eastern and North African group and reporting category; the description of the intended use of minimum reporting categories; and terminology used for race and ethnicity classifications. OMB's current review of the standard is limited to

these areas.” As part of the notice, OMB invited the public to submit comments in response to these changes over a period of thirty days following the publication of the notice.

By the end of the commenting period, individuals and organizations had logged 1,254 comments which documented a variety of perspectives. In the years leading to the changes that OMB had issued in 1997, the agency had similarly sought to gather public input through a number of outlets, including requesting public comments through the *Federal Register* (June 9, 1994). As Katherine Wallman, the U.S. chief statistician recollected in a follow-up from 1998, the commentary period yielded “nearly 800 letters and testimony from 94 witnesses at hearings held by OMB in July 1994 in Boston, Denver, San Francisco, and Honolulu; and an August 28, 1995” (p. 32).

Wallman had noted that these various forms of feedback could be synthesized into “four particular controversial issues,” which included the inclusion of additional categories for races and ethnicities beyond the ones listed in the 1977 regulations (such as Arab/Middle Easterns, Cape Verbenas, Creoles, European Americans), as well as the classification of people of “mixed heritage,” the classification of Native Hawaiians and the proposition that these categories should be “eliminated entirely” (p. 32). In addition to the public feedback, OMB had also assembled a Federal Interagency Committee for the Review of the Racial and Ethnic Standards which produced a report that comprehensively addressed a range of questions about potential changes and which OMB published in the *Federal Register* on July 7, 1997.

In the fifth chapter of the report, the FICE commented on “Should an Arab or Middle Eastern category be created and, if so, how should it be defined?” recommending that “If an ethnic category were added [for MENA], rather than a racial category, there would be no reduction in the numbers of any racial category. Before such an addition could be made, however, there would have to be agreement on how the new category would be defined. As the public comments have indicated, this is not an easy task” (Federal Register, 1997, p. 36936). The OMB ultimately determined that “the minimum standard [for racial/ethnic categories] should not include additional categories for population groups such as Arabs or Middle Easterners” (Wallman, 1998, p. 33). The plight for inclusion of MENA as a new racial category would be taken up again in the Notice published twenty years later, which was preceded by a number of efforts from the Census to explore cognitive tests and expert witnesses on this possibility. For example, the U.S. Census held a Forum on Ethnic Groups from the Middle East and North Africa which included sessions on “The Term Middle Eastern & North African,” which was suggested after reviewing state data collection agencies, researchers from universities, and non-profit organizations. In preparation for the Cognitive Tests scheduled for 2016, the U.S. Census had commissioned field tests that included the MENA category, with the preliminary results stating that “MENA respondents were happy to see the new category. One Palestinian respondent had concerns about “North African” being part of the category.” (Stapleton & Steiger, 2015, p. 10).

Per the language established in the 30 September 2016 notice issued in the *Federal Register*, there were meant to be multiple follow-ups with a specific schedule on the issuance of new guidelines. However, at the time of submission of this dissertation, there had been no follow-up, despite having received a confirmation from Jennifer Park, OMB senior statistician that “Federal Interagency Working Group for Research on Race and Ethnicity has been working hard to develop subsequent Federal Register Notices. In fact, the Working Group is currently working hard on their research proposals and analyses-to-date in order to publish a second Federal Register Notice in the coming weeks,” in early 2017 (personal correspondence, January 25 2017). So how did the public respond to the emergence of the new potential new category? The 1,254 public responses gathered through *regulations.gov* provide insights into the ways that the public considers the shifts into the attitudes of MENA. Scraping the data from *regulations.gov* yielded individual comments for the new notice, including the attachments that some respondents included in their messages (See Appendix A for the code used to extract these data). In total, 1,251 files were analyzed through NVivo, with the exclusion of comments that were empty. Notably, there were over two hundred messages with duplicated verbatim language that stated the support for the inclusion of Iranian Americans, all of which occurred in a span of a few days. This suggests a level of grassroots engagement from organizations leveraging a viral engagement to increase the visibility of Iranian Americans and persuade the viability and need for a new racial/ethnic category. Other public commenters were less enthused by the prospect of

this change. For example, one commenter stated that “Unifying Americans, not contriving new ways to segregate us from one another, should be the guiding ambition,” evidencing a rhetorical attempt to invalidate the significance of these data collection strategies.

The paradox of representation is captured within the comments and responses from the OMB. There are echoes of these sentiments in the types of commentaries that OMB had received more than twenty years before. The FICE report published in the *Federal Register* in 1997 stated,

At this time, there are no extant Federal legislative needs or specific program rule requirements for data on Arabs or Middle Easterners. Persons who have requested that *this information be collected in the 2000 census and other Federal data collections make the argument that the information is needed in order to make a case for changes in civil rights and related legislation.* An example of this contention appeared in a public comment, which erroneously held that under current civil rights legislation “A Korean shopkeeper is protected but a neighboring Arab or Middle-Eastern shopkeeper is not” (letter received by OMB during public comment period). Others would argue that current civil rights laws provide for a means of seeking redress for discrimination (p. 36936).

The burden of proof falls on trying to demonstrate the need for a new category with data, though the data cannot become visible until it is legislated that the category itself can exist. This example highlights the importance of making populations legible as a strategy for viable political change. And, as Cristina Mora has skillfully argued, the mobilization of individuals at a grassroots level can become the data to which demographers may respond. In this regard, it is not surprising that the comments submitted throughout October 2016 display a concerted effort to render certain groups

legible. It is no accident, either, that an event like 9/11 stands in between the first exploration of MENA in 1994 and its second iteration in 2017. Discrimination against Middle Eastern individuals has dramatically escalated in the past decade within the U.S. Such violence has only exacerbated in these past few years. Yet the paradox of representation extends beyond the fraught nature of legibility. For visibility may not only beget safety, but also engender further precarity. As others have articulated, the visibility and legibility of institutionalization comes at a specific price (Spade, 2015). But, as the respondents powerfully document, this visibility can also be the avenue for recognition necessary to effect systemic change at the service of these groups.

As others have acknowledged, the invitation to explore the politics of racial recognition have also incited vitriolic discursive practices, perhaps best encapsulated by this comment: “Further fragmentation and Balkanization of the American public can only hasten the continued degradation of the USA's cohesion as a sovereign nation. The effort given to this ill-advised anti-American and anti-freedom scheme should be deferred to a time AFTER THE BORDERS OF THE UNITED STATES OF AMERICA are secured” (As quoted in Chin, 2016; emphasis in original). The (i)logical claim that racial formations are inherently anti-American reveal the unfortunate underbelly of identity politics in the United States. Though these examples do not reflect the tone of the majority of the comments, it further reaffirms the perspectives that have enabled the ascendancy of the nationalistic populism from Donald J. Trump and his ilk.

In a teleconference hosted in late 2016, Wallman and a representative from the U.S. Census fielded questions from the public regarding data disaggregation, with a particular focus on AAPI communities. The webinar was an attempt to increase the visibility of the new commentary period, yielding over 200 registrants for the teleconference (Go, 2016, p. 2). As an attendee, I asked a question regarding the inclusion of the third area for which OMB sought feedback, namely, “the description of the intended use of minimum reporting categories” (p. 67398). In response, Wallman commented:

I also mentioned whether the agency can support for with resources the ability to have the sample large enough to get meaningful information on more detailed categories. So I said that. But I would note in addition that I sort of noted or hinted if I can say it flat out at the beginning of this conversation that it’s really up to the agencies to determine how detailed the information [...] If it’s an education program where the outcome may depend on whether one is from a particular part of the Asian subgroup for example then it’s up to that education agency to be asking and justifying asking for that level of detail. So it - we always encourage agencies to collect the appropriate level of detail for the purposes for which they’re collecting information. And we have done that in the past and we will continue to do that. As far as a blanket encouragement that everybody should no matter what being collecting greater detail on every single information collection I think that is a less likely scenario.” (Go, 2016, pp. 28-29).

In clarifying this, Wallman positions the OMB as a regulating agency that prescribes minimum standards for collection. This stands in stark contrast with the argumentation that agencies like NCES provide to their constituents to justify why certain categories are best not added. The responsibility is largely displaced between the two agencies.

The constellation of comments, both from laypeople, demographers, and field experts, constitute a complex amalgam of the perspectives that inform how racial formations become institutionalized at the federal level. Yet, unlike the commentary from those steeped in professionalized discourses (such as the FICE document), this repository of public comments provide insights into the discourses of community-based organizations, identity-based advocacy organizations, and everyday individuals. In doing so, they offer a sliver of the racialized tropes that circulate in everyday life.

However, as I highlight in the following section, the collective myopia towards MENA individuals is deeply entrenched in the type of scholarship published by higher education researchers. Thus, the plight for recognition cuts across a variety of fields, and the invisibility of certain communities rings particularly true across the spectra of postsecondary researchers, even within the work of researchers who espouse interests in equity and inclusion.

Section III: Mapping Bodies of Data

The preceding section focused on the specific historical trajectories of a postsecondary federal data warehouse, as well as an independent university-affiliated research center. In producing these data, I suggest that these two sites—NCES' IPEDS and HERI's TFS, function as the skeletal architecture of broad postsecondary education. We can, thus, understand these two sources of data on students and institutions as constitutive elements of current knowledge within the field of postsecondary education. In this section, I consider how the secondary analyses emerging from these data's usage accounts for the ways in which further educational knowledge has been produced.

The quest for educational knowledge seems to be in perennial peril. As Pamela Barnhouse Walters and Annette Laureau assert in an edited volume on educational policy and scientific rigor, "roughly between 1995 and 2002, numbers of reports citing scientific deficiencies in education research or suggesting that it was a field in need of rehabilitation were issued. Critics of education research charged that the designs on which much of the research is based are inferior, the quality of the data typically collected is shoddy, and the results of most studies are not be believed or trusted." (Walters, Laureau & Ranis, 2009, p. 1). These assertions cohere nicely with the long genealogy of criticisms of the field of educational research. Indeed, they are by no means new, as I have already demonstrated in the preceding section's review of the

various reports undermining the quality of research emerging from the National Center for Education Statistics.

The bulk of the works concerned with investigating the production of sound educational research have spent considerable ink writing about what *counts* as valuable educational research. Is it Randomized Control Trials through their back-breaking bridging with the natural sciences and their perceived objectivity? (Laureau would deftly argue that this is unlikely (see chapter 6 in Walters, Laureau & Ranis, 2009) Or perhaps educational research that readily translates into having a utilitarian applicability within schools and colleges (Ranis, 2009)?

There is, I contend, no satisfactory answer for the question of what we must consider valuable educational research. I am not alone in offering this stance. Other scholars similarly agree that the myopia of qualifying what type of research matters is not only detrimental to academic values, but also, forecloses the role that research processes can have in “the transition to more inclusive democratic systems.” (Papanagnou, 2011, p. 16). This might be a heady vision for the value of educational research writ large; the very critiques issued against the perceived poor quality of educational research implicitly affirms such a vision. If, educational research is meant to surpass moving targets of what counts as *de rigueur* standards for research quality assurance, then, those of us who identify within the field are necessarily complicit in upholding such assessments through a number of practices that perpetuate the field. In effect, peer-reviewing (Teplitskiy, 2016), conference attendance (Henderson, 2015), and

pedagogical curricula within doctoral education programs (Wells *et al.*, 2015) are part of the practices within a larger system that reproduces not only *how* to conduct educational research, but also what it means to *be* an educational researcher.

Understanding *who* are the individuals producing work from these databases has been largely absent from sustained interrogation. This section provides initial empirical evidence of *who* uses the data produced by centers like NCES and HERI and, further, *how* they use these data. Of particular interest, I examine how markers of social difference (race, ethnicity, gender, and class) are understood by educational researchers who base their research on these data. My proposition within this section is straightforward: understanding the emergence of large scale datasets that are now used within postsecondary education is necessary and, indeed, the focus of the first section of this project. But understanding *how* they are used and by *whom* is equally important if we seek to have a fuller grasp of how educational research can steward knowledge production in ways that are emancipatory for the very individuals it seeks to understand and whose lives it yearns to improve. Framing this investigation through the critical lenses afforded by Foucauldian analyses enables me to offer not just a descriptive assessment on how research is conducted within educational research, but also pose critical questions of what might be at stake with the current methodological formulations undergirding the bulk of these work. In doing so, I map out how seemingly innocuous practices germane to disciplinary conventions limit and, in fact, reiterate limited ways of understanding social identities within educational spaces.

A primer on bibliometrics

For the sake of this project, I have primarily focused on the work emerging from peer-reviewed journal articles within the world of education. Conference proceedings, books, research briefs, and reports, are not included in the current iteration of this project. From which journals should one choose? This is a particularly pointed question as the practice of selecting a corpus of journals for examination of networks necessarily means that the researcher in question (in this case, myself) would determine the scope of the sources that are included for analysis. Walters & Laureau note, “citation analysis has limitations, including potential bias and completeness of data sources, an over-reliance on journals rather than books, and the fact that a citation is an imperfect measure of influence (because, for example, the counts do not distinguish between a study cited positively versus negatively)” (2009, p. 199). To address this limitation, I have opted to not begin by selecting the journals under consideration, but rather, by employing the datasets (IPEDS & TFS) as my primary criteria for inclusion/exclusion within these databases. In doing so, I sought to capture the totality of peer-reviewed work that has used data from these sources. Conveniently both of these sites maintain a carefully curated bibliography of works produced by individuals who have used their data. These have been the starting points for building these databases. I have supplemented these data by conducting searches for additional peer-reviewed work in Google Scholar, and ERIC - the Education Resources Information Center.

Various disciplinary traditions explore how concepts circulate across interlocutors. In her text focused on the labor of diversity workers within postsecondary institutions, feminist philosopher Sara Ahmed (2014) remarks that in order to understand how diversity operates within universities her “methodology [is] an ‘ethnography of texts’,” as she explains, “to ask what diversity does, we need to follow diversity around, which is to say, we need to follow the documents that give diversity a physical and institutional form.” (p. 12). Her description enlivens our vision of concepts like ‘diversity’ as ideas that can become alive through the construction of specific documents, policies, utterances, and actions. Indeed, Ahmed’s observation invites us to understand how the practices in support of specific ideas—such as the value of diversity within colleges & universities—crystallize the importance of the concepts themselves. This vision is echoed in other fields, such as Cris Shore’s and Susan Wright’s proposition of the anthropology of ideas. As Shore (2010) explains,

When we think of policies we think about ideas, about conceptions of what needs changing in an organisation or society, how these decisions get translated into programs of action. We think of different scales or levels, processes and procedures, and the effects that policies have – or the reactions they produce. Thinking about policy in this way you realise that what you’ve got here isn’t simply the study of a linear or rational process by which certain actors try to change society – because policy is always instrumental, always about trying to intervene upon the social world. One of the great problems in anthropology and in social theory in general is how to connect macro-level, global processes to micro-level everyday practices that people engage in. There have been many attempts at theorising that link. Some people talk about “structure versus agency” or the “global and the local”, or “material culture versus embodiment and practice”. And nobody’s really come up with a very clear methodology for how to do connect these dimensions in a single framework. *But when we think about policy or follow its trajectory – its genealogy, the language used to frame*

and represent it, the way it is translated into practice, its institutionalisation, and the effects it creates – we suddenly realise that what we have here is a methodological tool for connecting the global to the local and for linking structure with ideology, agency and subjectivity (pp. 604-605; emphasis added).

Echoing Ahmed's language of following texts, Shore invites us to consider how we may follow policies by understanding their origins, the specificity of their language, and the effects they produce. I am particularly interested in exploring how educational researchers discursively constitute social identities through their own knowledge-making practices. The focus on the *practices* that constitute knowledge has largely been remiss from the current literature in fields like Science Technology Studies (STS) and sociology of knowledge (Camic, Gross & Lamont, p. 7). Broadly, this section advances Camic, *et al.*'s interest in the "practices" that constitute knowledge, that is to say: "the *ensembles of patterned activities*—the 'modes of working and doing,' in Amsterdamska's (2008, 206) words—by which human beings confront and structure the situated tasks with which they are engaged" (p. 7; emphasis in original). Calling attention to the repetition of actions which can sometimes recede to the background and become unexamined, investigating the practices that produce social knowledge provides a valuable point of departure to understand how educational researchers have embedded specific racialized and gendered discourses in their own research. The volume in which Camic *et al.* develop the significance of empirical investigations on knowledge-making practices considers a wide range of disciplines, sites, and time periods that reveal how inquiries both within and beyond the social sciences and the

humanities follow discernible patterns that enable us to better understand how we constitute areas of expertise in academia and other spaces. Considering the role of college libraries, peer review panels, IRB boards, and other seemingly innocuous practices and spaces evidence rich examples that seek to provide a space for “research on the production, evaluation, and application of social knowledge” (p. 32). Following this line of inquiry, this section focuses on the role of peer-reviewed work as a conglomerate of discursive networks through which we can understand how ideologies of social identities can be better understood.

The world of peer-reviewed work in higher education research

This section contains three distinct levels of inquiry, all of which are focused on peer-reviewed work. In the first level, I use bibliometrics principles to map out multiple patterns of educational researchers’ citational practices across eleven (11) journals.¹ By using the Journal Citation Report through Web of Science, I map a census of articles (n = 21,069) published across these eleven peer-reviewed journals, all of which have a focus on educational research. To provide a more in-depth understanding of the content in these texts, I examine a sample (n = 1,206) of all articles published in three (3) of the eleven (11) journals, all of which have a specialized focus in higher education. I conclude by reviewing a smaller sample of articles found within these 11 journals, all of which are focused on either NCES data or HERI data. As it will become evidence, peer-reviewed

¹ This table can be found in Section I, p. 31.

work is a specific element of scholarly culture. The production of peer-reviewed work serves as researchers' currency in academe (Laureau, 2009). As such, they provide highly stylized modes of communication, often restricted by specific forms of content layout and jargon. The goal, thus, is to gain a closer appreciation for the various types of dialogues that unfold across these texts, as well as discerning the particularities of the racial and gendered ideologies embedded in the content examined by their authors.

For each article in the largest sample of this project (n=21,069), I extracted the name(s) of the author(s), the title of the journal, the title of the article, the year it was published, the abstract for the article, the references for the article, and the articles that had cited the article. After curating this dataset, I used VosViewer v. 1.6.5 to both analyze and visualize different citational patterns within this corpus (collection of texts). VosViewer was first introduced by Van Eck & Waltman at the *12th International Conference on Scientometrics and Informatics* in 2009 and is a freeware used to graphically represent large bibliometrics maps. Although there are other softwares used to depict the relationship across different academic documents (see Van Eck & Waltman, 2010 for a comparison between these platforms), VosViewer provides the necessary functionality to produce a variety of representations that gives insights into the relationship between specific racialized and gendered nomenclature across authors, and journals. VosViewer translates the database curated from WoS into a co-occurrence matrix that can be normalized to estimate the degree of similarity across different elements. Unlike Teplitskiy (2015) method of normalization that follows the Jaccard

index, VosViewer is programmed to use the association strength, which Van Eck and Waltman operationalize as:

$$s_{ij} = \frac{c_{ij}}{w_i w_j}$$

“where c_{ij} denotes the number of co-occurrences of items i and j [i.e. authors or articles, in this context] and where w_i and w_j denote either the total number of occurrences of items i and j or the total number of co-occurrences of these items.” (Van Eck & Waltman, 2010, p. 531). In addition to the association strength, VosViewer also estimates the clustering density for each item in the matrix (Van Eck & Waltman, 2010, p. 533), which provides a visualization that not only displays the relative proximity of items with one another, but also depicts the normalized strength of the bonds between the items. In so doing, VosViewer enables us to readily observe the relationship across a large number of articles by virtue of their proximity to one another.

There are other platforms (HistCite, for example) that also integrate the year of publication in the normalization of a given article’s citations. However, that is beyond the functionalities of VosViewer and is, in fact, a limitation of using this platform. Yet, because the metadata extracted for each article provides additional information beyond the context of the article itself (e.g. The institutional affiliation and country for authors, as well as authors’ names, etc.) it is possible to also visualize other important relationships amongst these various texts. In the next sections, I visualize some of the more compelling data that can help us understand the nature of our educational

research, as well as the discursive frameworks that inform the research produced focused on issues of social identities.

Understanding institutional origins

As producers of knowledge, researchers with institutional affiliations have varying levels of productivity. For the authors of the articles in this sample of journals, I mapped the relationships of authors' affiliations to understand how the institutions of knowledge-producers in the field relate to each other. *Fig. 4* depicts institutional relationships using bibliographic coupling with fractional counting. In bibliographic coupling, the relatedness of the units of analysis (in this case, institutions) is defined by the number of references shared by the two units being compared. Though there were 3,531 institutions in the sample, 340 met the criteria for inclusion in this graph: (a) having at least 10 publications across all journals, and (b) being cited at least 10 times. I added these thresholds for inclusion after multiple iterations seeking to enhance the graph's legibility. The color-coding follows a blue-green-red gradient. The redder the shade, the larger the number of links between proximal institutions. Linkages between institutions were normalized by the distribution of citations amongst all the institutions.² In total, the institutions have 52,009 shared links. The University of Wisconsin (355 articles, 8,372 citations) has the highest relative link strength, followed by the University

² For a comprehensive overview of the VOS mapping technic and parameters for cluster density visualization, see van Eck & Waltman (2010, pp. 530-534)

Toronto, University of Manitoba). This confirms the geographies of influence that other authors have noted for specific articles (e.g. Calma & Davies (2017)). It goes without saying, as well, that the journals that I have chosen for this particular analysis are exclusively English-speaking.

Geographies of Influence

The geographic regions that are depicted in *Fig. 4* can also be confirmed by using the country in which the institution is located as the primary unit of analysis. The resultant visualization is included in *Fig. 5*, where the United States is the focal point in the network clustered by other English-speaking countries (England, Australia, Scotland). Notably, the strength of bibliographic co-citation between the United States and Canada is lower than with England and Australia.

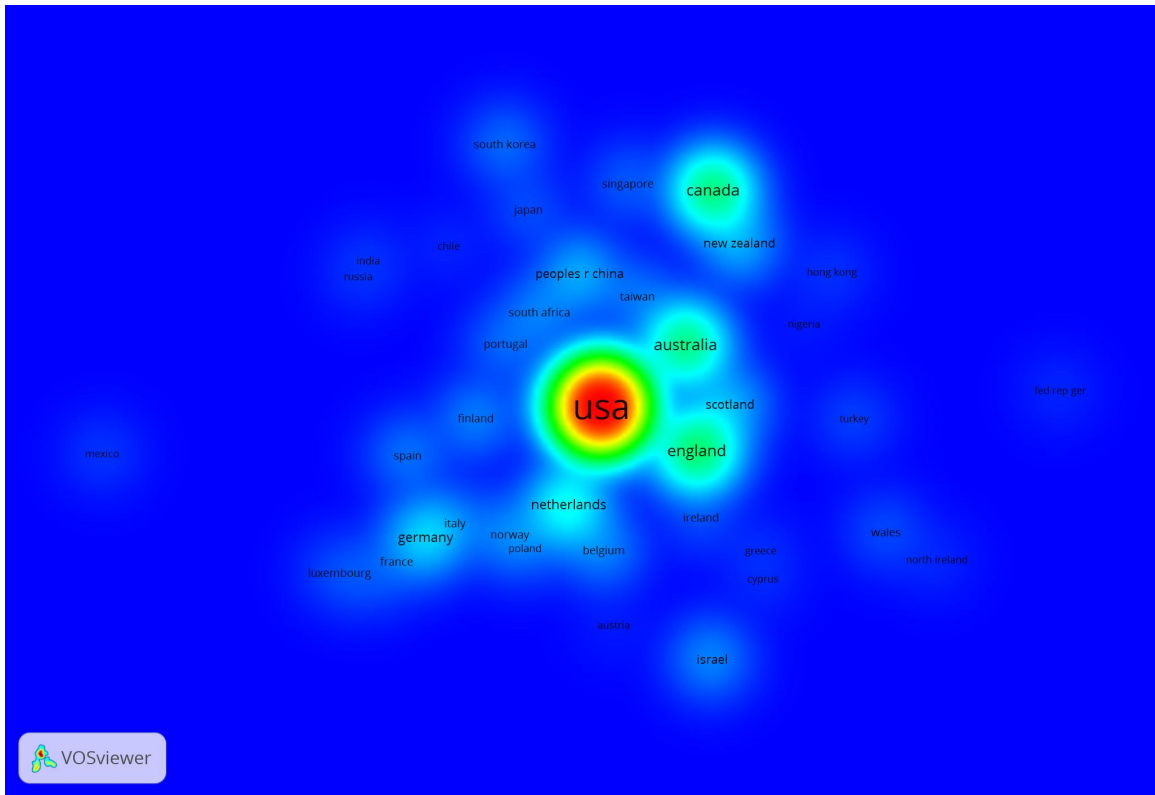


Figure 5 Bibliometric analysis by country

Authorial Relationships

Having established the general landscape of knowledge-making across institutions and nations, it is fitting to examine authors as the unit of analysis. For this, I established an inclusion threshold wherein authors had to have: (a) at least 10 articles as first author; (b) at least 20 citations. 219 authors met the inclusion criteria. These authors were mapped into 8 clusters (see *Fig. 6* below) using a network visualization in lieu of a density visualization in order to clearly visualize the clustering amongst authors.

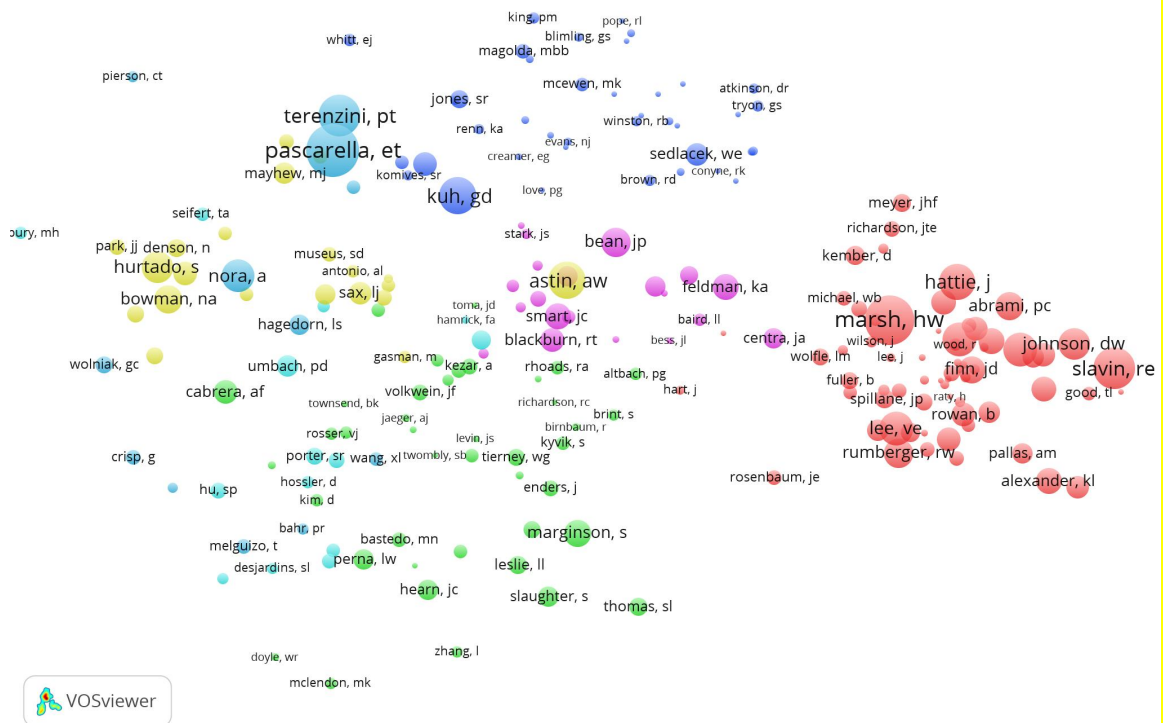


Figure 6 Network analysis by author

As the visualization shows, Patrick Terenzini (140 articles, 3,411 citations), Ernest Pascarella (70 articles, 2,449 citations), and George Kuh (74 articles, 2,216 citations) are the more highly cited authors within these journals. This is not surprising given the longevity of their careers, and the close proximity between Terenzini and Pascarella is expected given their tendency to alternate co-authorship with one another. The clusters demonstrate a compelling visualization of the various domains of educational research. The red cluster, which is farthest from all others is primarily composed of authors specializing in educational psychology. Herb Marsh (a U.S.-trained psychology now based at the University of Oxford) is the most productive from this cluster with 45 articles

within the 11 journals. Other clusters (e.g. Yellow and Teal) more neatly fit into broader areas of writings focused on diversity & equity.

Notably, however, the majority of the authors in the Yellow cluster also share institutional affiliations. For example, the University of California-Los Angeles is represented by Julie J. Park, anthony antonio as former students and Linda Sax, Sandy Astin and Sylvia Hurtado as faculty. Other clusters may be broadly described as addressing authors whose research focuses on global higher education (Green), college students' development (Dark Blue), higher education & finance (Light Blue), and legal and sociological issues (Pink). It is also worth noting that the the same clusters can also be understood differently by looking at an overlay visualization showing the year of publication the articles as the key for the range of colors (See *Fig. 7*). This visualization suggests that some of the more contemporary work has increasingly considered issues of diversity and equity as central (represented by the left side of *Fig. 7* in yellow-orange hues) in more recent scholarship, whereas work focused on educational psychology has receded in prominence within these journals (right-hand side with dark blue-light blue hues).

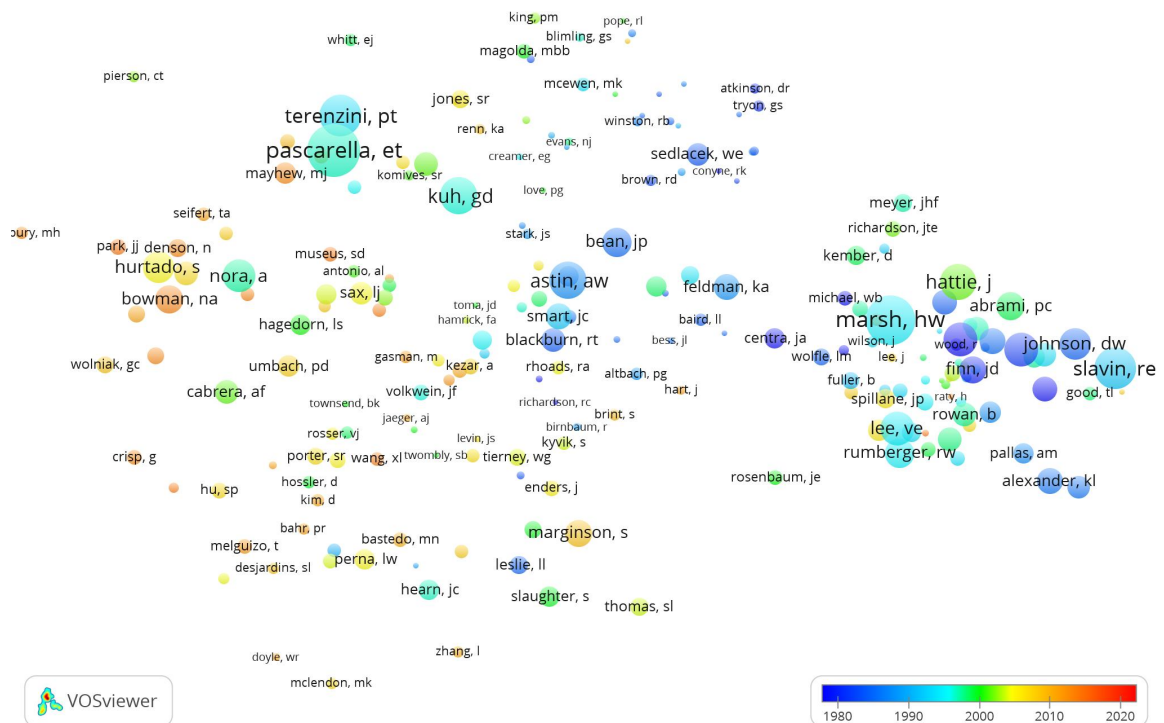


Figure 7 Overlay visualization of authors by year of publication

It is not surprising to see that in running an analysis focused on the more cited articles (*Fig. 8*), both Terenzini’s and Pascarella’s work emerge as some of the more highly cited ones. Additionally, a highly cited cluster of methodological texts also emerges, with a primary focus on qualitative methods and grounded theory.

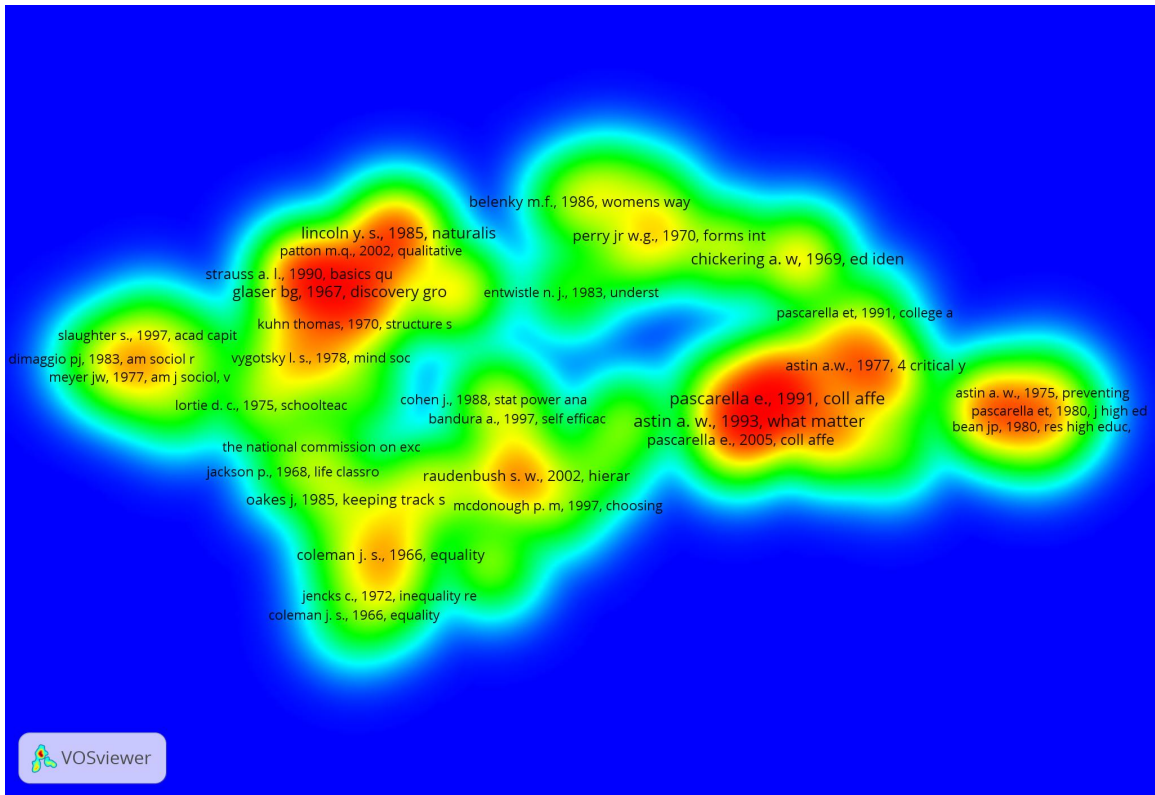


Figure 8 Density analysis by authors' citations

Inspecting Journals

The claims about the different clusters of research—harkening back to McFarlane’s archipelago (2017)—must be interpreted with some caveats. The journals selected for analysis here were chosen to both focus on higher education while considering some of the journals whose scope is beyond postsecondary education. Visualizing the citational patterns between journals—that is to say, the strength of the links across each journals’ articles with one another clearly delineates the focal point of the journals. As *Fig. 9* shows, the journals with the most strength of links (interpreted as influence) are *Review of Educational Research (RER)* and *American Educational Research Journal (AERJ)*, both

of which are published by the American Educational Research Association, the primary organization for researchers of education. *Teachers College Record*, *Sociology of Education*, *Educational Studies*, and *Educational Research*, are proximal to the main locus of *RER* and *AERJ*, and their works focus on a wide range of issues. It follows naturally, then, that the cluster on the right is solely composed by journals with a focus on higher education. Of note, the *Journal of Diversity in Higher Education* is the most recent journal from that cluster, having only begun its issues in 2008, accounting for its attenuated influence in relation to the other journals.

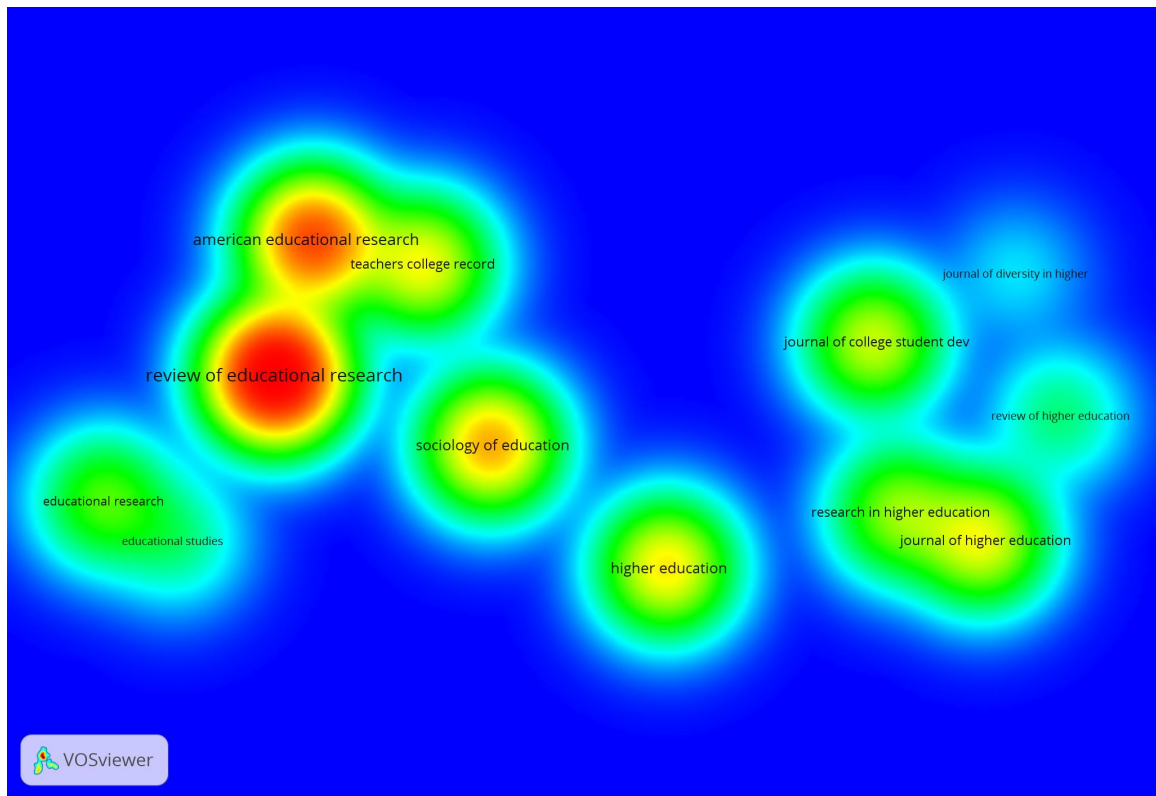


Figure 9 Density analysis by journal

Expanding the citational practices of these journals to all of the works referenced within their articles reveals a large network of sources that spans beyond scholarly journals. *Fig. 10* shows the density visualization of all journals cited, weighted by the citations of each journal. Of the 160,056 sources, 622 were above the threshold criteria: (a) at least 100 citations. For legibility, only the top 200 are visualized below. Like the preceding visualization, a disciplinary divide emerges across journals. The left-hand side of the network favoring psychological methods and approaches, whereas the right-hand side represents a broader array of disciplinary approaches to educational issues. Unsurprisingly, the journals with the highest number of citations (depicted in red) are journals amongst the 11 included in the dataset used for these visualizations.

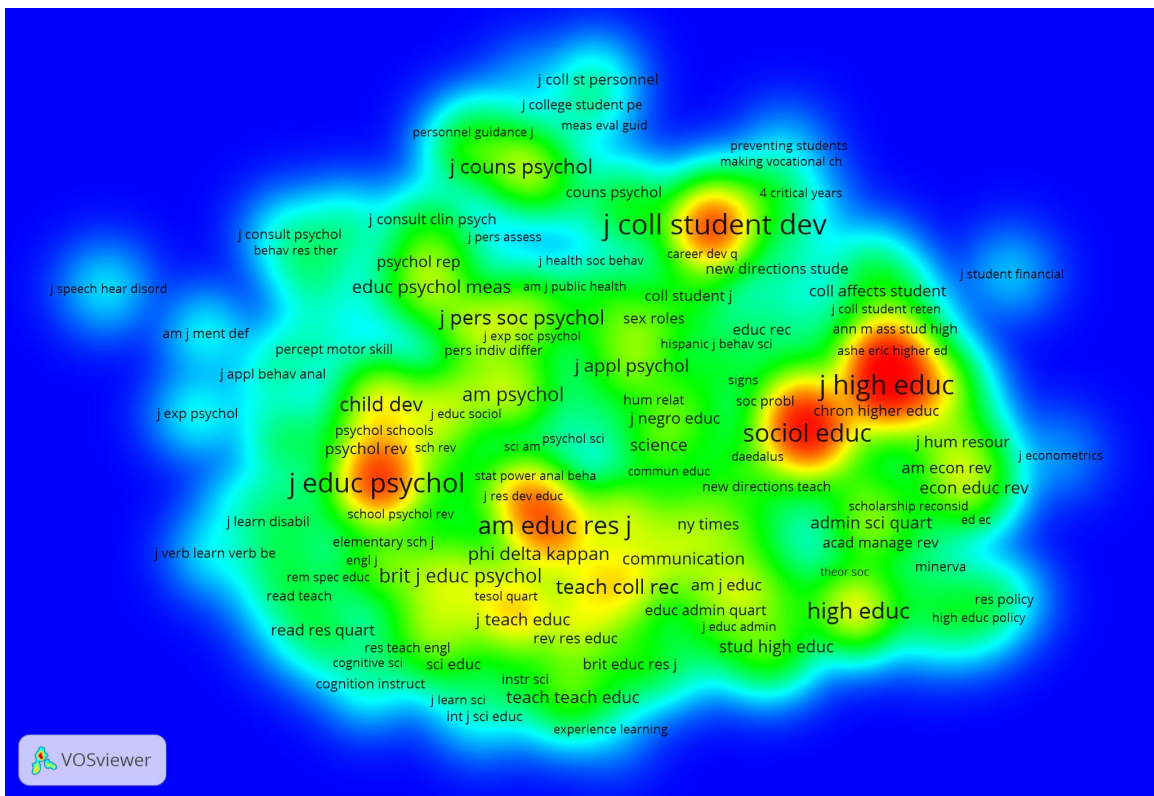


Figure 10 Density visualization of top 200 journals cited

Exploring a large corpus of educational researchers' output is one way of understanding the emergence of discursive trends in the field; though it is not without issues. Indeed, though these depictions may have a powerful visual allure, their very persuasion attests to the love of measurement, or what Richard Smith coins as *metricophilia* to signal a collective fascination with measurement which "leads to the over-simplification and reductionism," and through which "there is a strong tendency to ignore or underplay crucial philosophical questions in the faith that better metrics and statistics, and more of them, will tell us all that we need to know." (Smith, 2010, p. 190)

Smith's contention is far too damning, though it does emphasize the caution through which we must engage with bibliometrics as a method to understand the discursive practices of our field. At its most earnest, bibliometrics is an attempt at capturing the complex transactions of information that result in the proliferation of new knowledge within academic settings. Bibliometric methods depict the circulation of knowledge and it is not unlike other approaches within different disciplinary conventions, such as Bourdieu's (1993) incisive work on the formation of fields. Bibliometrics, however, has carved a niche—albeit not an entirely hospitable one—within information and library sciences. There, it has emerged as a potential avenue through which researchers' practices can be collected and analyzed by way of their citational practices—scrutinizing and understanding who researchers reference as way of mapping the various conversations taking place within academic spheres. Some, however, deride these approaches as unreliable, navel-gazing, and invalid. A recent edited collection, *Beyond*

Bibliometrics (2014), references the underbelly of large-scale data collection strategies, cautioning that these strategies may yet be another tendril of the “culture of accountability, metrification, and monetization being imposed on the academy” (p. 15).

Exploring Discourses in Higher Education

The original conception for this dissertation was to answer a primary question, namely: How have educational researchers produced and used a corpus of data on social identities to advance scholarship and inform postsecondary policies in the United States? As an iterative project, this investigation detoured into unexpected terrains. Originally, a part of the project sought to capture the perspectives of educational researchers who had made use of large-scale educational datasets for their research. The intent of this was to understand how these data informed the framing of markers of social difference—such as race, ethnicity, and gender—in the research produced by these investigators. Instead of seeking this information through interviews, I decided to opt for a different approach that enabled me to better conceptualize the field of higher education as the primary site for inquiry. Following Hart (2006), I decided to focus on the information produced and vetted for higher education researchers by collecting the entirety of research published in three primary higher education journals. In doing so, I amassed a corpus of 1,206 articles published between 2002 and 2016. The journals included in this corpus were *The Review of Higher Education*, the *Journal of Higher Education* and *Research in Higher Education*. Notably, there are other valuable journals

in the field which are not specific to postsecondary education, like *American Educational Research Journal*, or *Teachers College Record*. Furthermore, there are other postsecondary journals such as the *Journal of Diversity in Higher Education* which also warranted inclusion. However, my choice of these three journals were premised on the previous literature that had surveyed the field of higher education, namely (Hart, 2006; Hart & Metcalfe, 2010; Wells, Kolek, Williams & Saunders, 2015). Hart's (2006) work, for example, was grounded in B.K. Townsend's 1993 study that focused on these same journals. Similarly, Wells *et al.* (2015) also justify their selection of these three journals by following Hutchinson & Lovell's 2004 content analysis of these same higher education journals from 1996-2010, with Wells *et al.* updating the scope of this investigation for 2006-2010. The limitation of these previous studies is that they have solely focused on specific time periods which have not extended beyond eight years in total. Unlike these studies, I have included the census of all digitally available data for these three journals, which spans seventeen years. Furthermore, these previous studies have employed specific perspectives to understand their investigations. Hart has approached this work with a specific interest in the manifestation of feminist framework in higher education. Wells *et al.* (2015), focused on the usage of quantitative methods used in postsecondary research to better inform the graduate curricula for future scholars in the field. For this project, my framing follows Foucault's (1978) commitment to the formation of discourses. As I have already elaborated in section I, Foucault's interest in the formation

and circulation of discursive practices provides a specific way of understanding this corpus as reflective of the dispositions and traditions within our field.

I manually retrieved all 1,206 and entered their OCR-readable text and bibliographic information into Zotero, a bibliographic management system. After retrieving these texts, I uploaded them to NVivo, a qualitative research management software. Where available, I reviewed all abstracts for each article. If articles did not have abstracts available, I reviewed the introduction and conclusions for articles to have a better sense of each of these pieces. The goal of this part of the analysis was to develop an appreciation for the language used by authors across the three journals. Upon completing these review, I developed a vocabulary scheme to extract the occurrences of specific words in texts. This approach was used to develop smaller batches of texts to review in-depth. These smaller batches of texts were used to understand the framing of specific narratives around social difference.

My attentiveness to exploring specific terms to understand their usage means that there is an arbitrary choice that renders these terms important. Indeed, it may be counterintuitive to believe the emergence of terms as valuable to the field when we choose which terms we want to follow across texts. For example, if I'm interested in understanding the usage of "intersectionality," within these texts, then solely looking for the term "intersectionality," may render other researchers' approaches invisible, even though they share a commitment to methodologies attentive to the cross-section of various forms of identity, despite using a different language for it. The attentiveness to

how terms are employed within educational research is something that has also been taken up by other researchers in the field. Núñez (2013), for example, noted how “typical scholarship employing intersectionality in education and the social sciences has focused on how individuals experience privilege, marginalization, or both, according to various combinations of social categories (Núñez, 2013, pp. 85-86). Yet, she also calls attention to the scholarship in other fields such as feminist studies and sociology where researchers “have called for intersectionality scholarship to focus less on the “additive” (Collins, 2007) descriptions of how individuals experience holding multiple social identities and to focus more on the constitutive dynamics of power in institutions that perpetuate social reproduction of inequalities” (Núñez, 2013, p. 86). How, then, does looking for specific terms across texts avoid an approach that furthers the “additive” models that Núñez cautions us about through Patricia Hill Collins’ work? Invoking Foucault’s genealogical excavations as an approach to these texts enables us to employ a level of plasticity in the the terms of interest for this project. Thus, rather than solely looking for decontextualized instances where “intersectionality” is used across these texts, I also sought for contextual evidence that the texts’ author(s) demonstrated attentiveness to multiple forms of experiences in their descriptions of their studies.

The lack of specificity of terms like “intersectionality” is not solely within the province of educational researchers. As feminist scholar Jennifer Nash (2008) noted, “the unresolved theoretical dispute [making] it unclear whether intersectionality is a theory of marginalized subjectivity of a generalized theory of identity,” within humanistic

scholarship (p. 10). Nash goes on to point out that current, “intersectional literature has eluded an examination of identities that are imagined as either wholly or even partially privileged, although those identities, like all identities, are always constituted by the intersections of multiple vectors” (Nash, 2008, p. 10). In the corpus examined in this project, the articles that have explicitly mentioned corollaries to “intersectional” approaches follow the similar muddiness that Nash describes.

Of the 1,206 articles, only 41 of them explicitly mentioned “intersectionality” within the text. Yet, of these, 23 of them only alluded to the term once. Upon a closer review of these texts with a single reference, some of them appeared to have used the term because a work cited by the author contained the word “intersectionality” in its title. This is not to say that these texts were not articulating the confluence of multiple axes of difference in their work. For example, Espino’s (2012) piece in a supplemental volume of *The Review of Higher Education* on race and equity focused on exploring how “critical race theory informed [her] epistemological perspective and [her] methodological approach to analyzing participants’ educational narratives, including allusion to “raced-gendered epistemologies” (p. 32; p. 42). Espino’s article is emblematic of other scholars’ approaches to understanding modes of power through different nomenclature. This is not to detract from their perspectives, but to showcase how these approaches unintentionally reorient and reproduce the differences that they seek to explore. What makes Espino’s piece remarkable is that its style follows “an autobiographical counter-story that draws from [her] personal reflections on crafting a research agenda pertaining

to Latina/o educational pathways” (p. 33). And yet even using such an intimately familiar style, there are missed opportunities to showcase how other forms of social identities beyond raced-gendered discourses have also mediated her experiences in academe. A common counterargument to such observations is to proclaim that there is a lack of analytic sophistication when one tries to talk about all axes of difference at once, and thus, approaches that foreground race/sex are sufficient for analysis. Undergirding this counterclaim, however, is the way in which certain forms of social difference are perceived as dominant and, thus, have gained visibility and acceptability within scholarly discourse. The one mention to sexuality within Espino’s piece, for example, only comes when she is citing Cuáudraz & Uta’s (1999) call to acknowledge the “multiple dimensions found within Mexican American *communities*, including immigrant status, parental educational attainment, linguistic attributes, phenotype, sexualities, and geographic location, to name a few” (p. 37).

Other articles employed “intersectionality” as a method for analysis. Abes (2012), for example, analyzed lesbian college students’ multiple social identities through both constructivist and intersectional interpretations. As Abes describes in her piece, “intersectionality illuminates the complexities of lived experiences through a framework for exploring relationships between identity and intersecting systems of inequality (Bowleg, 2008; Dill & Zambrana, 2009). Rooted in Black feminist theory (e.g., Collins, 1991), intersectionality portrays multiple identities as interdependent and inseparable, depending on each other for meaning, rather than as a” (p. 189). Abes (2008) arrives at

a commitment to using intersectionality beyond its analytical power to describe multiple interlocking systems of power by “adhering to Bowleg’s (2008) admonition to consider the data ‘within a macro sociohistorical [*sic*] context of structural inequality that may not be explicitly or directly observable in the data’ (p. 322)” (p. 193). In this understanding of intersectionality, Abes’ approach echoes Núñez’s (2013) call for using a multilevel model of intersectionality, though arrives at the commitment through different citational practices. Notably, Abes’ approach to intersectionality calls attention to the salience of silence in participants’ narratives. Abes notes, for example, that one of the primary participants discussed in this article, Gia, “believed that part of the reason she was tuned into White privilege was that her half-brother was biracial, and she was upset that people treated him differently because of race” (p. 196). Abes immediately notes, that Gia was aware “that she did not think about her privilege as a White lesbian,” (p. 196) which signals how the author remains critically attentive to the ways in which certain identities—though not explicitly articulated by participants are still analytically important to highlight *because* of their very omission by the participants with whom one is conducting research.

In doing so, these works fall short of enacting Nash’s (2008) call for “intersectional scholars to critically interrogate the goals of the intersectional project as they determine how to chart the future of this theoretical and political movement. The important insights that identity is complex, that subjectivity is messy, and that personhood is inextricably bound up with vectors of power are only an analytic starting point; it is time

for intersectionality to begin to sort out the paradoxes upon which its theory rests in the service of strengthening its explanatory power” (pp. 13-14).

Visualizing the most common terms within these journals and their relationship to each other enables us to appreciate the discursive practices—that is to say, the construction of academic frameworks—specific to each of the journals. As an illustrative example, starting with the titles and abstracts for all of the articles in *Journal of Higher Education* results in *Fig. 11*. Issues of gender (e.g. “gender” and “woman”) as well as “diversity” and “race” are depicted in the periphery of the visualization, demonstrating how these topics, though part of the journal, are not the more influential topics addressed in the journal.

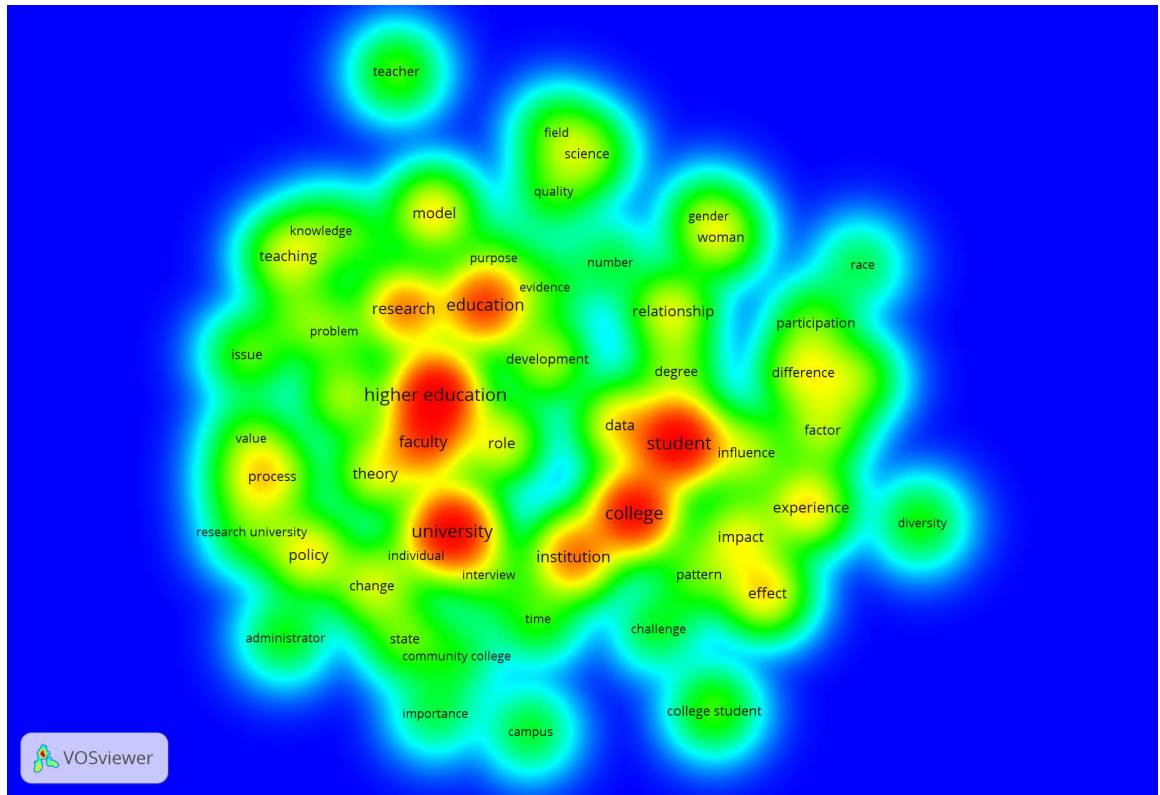


Figure 11. Text-based map (title & abstract) for Journal of Higher Education

For comparison, however, we can also visualize the topics addressed by a different journal with a more specialized focus, like the *Journal for Diversity in Higher Education*. As depicted in Fig. 12, this particular journal is focused on issues of social identities in the context of postsecondary education. Consistent with this mission, the majority of the word clusters in the visualization include markers of race, ethnicity, and gender.

The usage of markers of social identities can be summarized by considering the number of articles that mention specific terms throughout their text. *Table 3* shows the distributions of racial/ethnic markers used within the three focal journals of the subset (*Journal of Higher Education*, *Research in Higher Education*, and *Review of Higher Education*). These terms were selected by using both the terms included in the Federal Standards, as well as other common synonyms. The table shows how the use of these various terms for race and ethnicity are generally evenly distributed across the various publications. The exception, however, is “Middle Eastern” which has the least references out of all the terms (18). Similarly, the majority of the articles acknowledging Middle Eastern as an identity are largely part of *The Journal of Higher Education*. One interpretation would be to consider how the lack of an institutionalized category (e.g. MENA, as discussed in Section II) accounts for a term’s relative invisibility. However, given that these journals are also amenable to content that uses methods that are not exclusive to databases (e.g. qualitative inquiries), then it would be more compelling to suggest that the lack of attention to “Middle Eastern” can be understood as an area for future growth within postsecondary scholarship. Similarly, *Table 4* shows the same terms distributed across the years considered in this sample (2002-2015; I excluded 2016 as not all issues for the journals were published by the time I curated this repository of articles). Overall there is a modest increase in the proportion of articles covering issues of race and ethnicity starting in 2010. Importantly, the majority of the articles over time prefer to use “African American” in lieu of “Black”. Note, that the

category “Black & African American” includes the articles where both terms are used. A closer examination of these articles reveals that most of these are quantitative analyses that authors draw the racial/ethnic nomenclature directly from the various data sources used in their work. The constellation of Chicano, Hispanic, and Latino, also reveals a preference for Hispanicity as the primary descriptor. Chicano, perhaps, the most politicized of the terms, is seldom used in comparison to Hispanic and Latino.

A similar reluctance to adopting more politicized terms is also observed in the cluster of words for gender and sexuality (see *Table 5*). Given that there are no current federal standards for these terms, I drew from the documents of the *Federal Interagency Working Group on Improving Measurement of Sexual Orientation and Gender Identity in Federal Surveys*. Most notable is the lack of “queer” as a term used in *Research in Higher Education*, though there are over a dozen articles focused on gay and lesbian issues in the journal. Though this is a modest number given that the total sample of articles for this journal is 1,294, the journals focused on gay and lesbian topics account for less than 0.1% of its content. In general, the *Journal of Higher Education* is the most amenable to publishing work focused on gender and sexuality. Notably, however, all of them also seem to focus on issues of gender, though primarily in its binary construction given the number of articles focused on “woman” and “female”, the latter being the more common term. Female, as opposed to woman appears to be favored given that it is largely framed as an apolitical term in quantitative research. Like the work on race and ethnicity, there are more articles focused on gender and sexuality starting in the 2010s

(See *Table 6*). Taken in conjunction, these modest gains may, indeed, signal the proliferation of scholarship taking social identities as key analytics.

[Tables 3 – 6 follow in the next four pages]

Table 3. Distribution of race & ethnicity terms amongst three journals (2002-2015)

	Total Publications	Research in Higher Education		The Journal of Higher Education		The Review of Higher Education	
African American	550	215	39%	187	34%	148	27%
Black	225	101	45%	73	32%	51	23%
Black/African American	61	23	38%	18	30%	20	33%
American Indian	153	58	38%	49	32%	46	30%
Native American	206	92	45%	60	29%	54	26%
Pacific Islander	87	3	3%	44	51%	40	46%
Asian	555	242	44%	180	32%	133	24%
Chicano	93	23	25%	33	35%	37	40%
Hispanic	512	231	45%	151	29%	130	25%
Hispanic/Latino	95	44	46%	26	27%	25	26%
Latino	391	142	36%	135	35%	114	29%
Middle Eastern	18	4	22%	9	50%	5	28%
Biracial	23	7	30%	9	39%	7	30%
Multiracial	80	30	38%	25	31%	25	31%
White	770	308	40%	256	33%	206	27%

Table 4. Distribution of race & ethnicity terms in JHE, Review of HE, and Research in HE

Total Publications	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	African American	23	32	41	29	34	36	41	36	40	49	49	31	51	37
Black	8	15	6	15	22	12	14	15	21	11	22	22	11	20	11
Black & African American	4	2	0	0	2	4	6	6	7	3	6	3	10	5	3
American Indian	6	9	13	10	6	6	16	15	17	10	12	8	14	6	5
Native American	6	12	10	12	16	14	12	10	18	18	23	14	16	18	7
Pacific Islander	3	7	3	4	2	5	4	6	8	3	11	8	7	7	9
Asian	24	28	34	36	33	33	39	34	46	45	50	40	46	44	23
Chicano	5	6	9	4	5	8	7	7	10	9	5	4	6	3	5
Hispanic	15	23	28	36	34	32	38	35	44	36	51	28	50	41	21
Hispanic & Latino	0	2	1	6	4	4	8	2	12	11	12	4	14	11	4
Latino	7	14	20	19	18	24	25	28	39	36	45	27	39	32	18
Middle Eastern	0	1	0	1	0	0	2	0	2	3	3	2	1	1	2
Biracial	0	2	0	0	1	1	3	0	3	3	5	3	1	1	0
Multiracial	1	3	3	4	3	0	2	2	6	7	11	6	12	11	9
White	35	47	51	44	57	41	47	49	59	62	78	50	63	56	31

Table 5. Distribution of gender & sexuality terms amongst three journals (2002-2015)

	Publication	Research in Higher Education		The Journal of Higher Education		The Review of Higher Education	
Bisexual	31	4	13%	12	39%	15	48%
Gay	75	18	24%	33	44%	24	32%
Homosexual	14	2	14%	6	43%	6	43%
Lesbian	65	15	23%	30	46%	20	31%
LGBT	13	3	23%	6	46%	4	31%
Queer	25	0	0%	14	56%	11	44%
Transgender	18	4	22%	6	33%	8	44%
Woman	163	42	26%	73	45%	48	29%
Female	740	345	47%	237	32%	158	21%

Table 6. Distribution of gender and sexuality terms in JHE, Review of HE, and Research in HE

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Publications	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Bisexual	2	1	1	2	3	2	1	1	2	1	6	3	1	2	3
Gay	3	6	5	4	4	4	6	4	4	1	13	8	3	6	4
Homosexual	3	1	3	2	1	0	1	0	0	0	1	0	0	1	1
Lesbian	4	3	3	6	6	5	4	3	6	1	8	7	2	4	3
LGBT	1	0	0	0	0	1	0	0	0	1	1	4	2	2	1
Queer	3	1	0	2	2	0	0	0	2	3	4	2	1	2	3
Transgender	1	0	0	0	1	0	1	0	1	0	4	3	1	3	3
Woman	14	12	14	11	9	10	7	6	9	16	12	14	9	10	10
Female	30	46	44	46	59	53	46	46	53	63	65	51	58	54	26

A closer look at NCES & HERI

The researchers who make the most use of data emerging from NCES are also the researchers whose work is more closely interested in policy and quantitative work (e.g. Laura Pena, Nick Hillman, Liang Zhang in *Fig. 13* and also *Fig. 7*). The figure below is restricted to a sample of 83 texts found in the three focal journals of this section

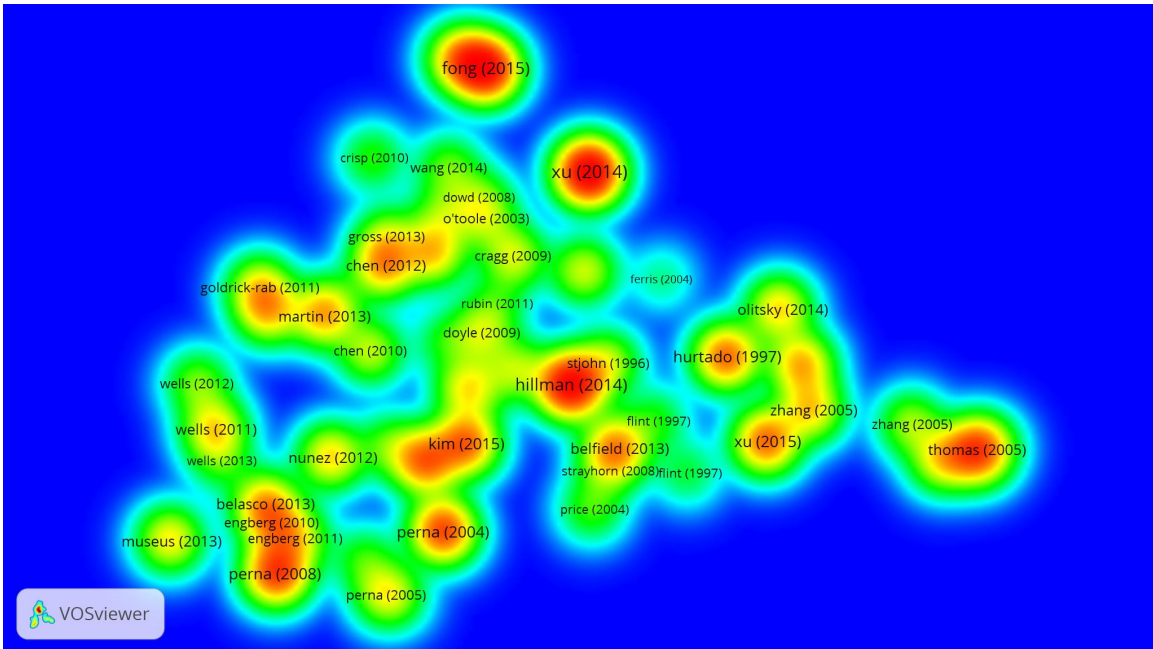


Figure 13 Density visualization of authors using NCES datasets

Likewise, the majority of the work from the Higher Education Research Institute has been generated by current or past members of HERI/CIRP. Interestingly, the authors publishing from HERI's data (including TFS) focus their scholarship on issues of diversity and equity (see *Fig. 14* below, and *Fig 7* for comparison) with more specific questions that are focused on campus environments rather than federal or state-level queries.

Section IV: Institutionalizing Bodies of Data

Speculative Futures: Surveying Emergent Demographics

Inasmuch as this is an example of racial issues within U.S. politics, it is also an example through which we can speculate the inclusion of other domains of difference and identity. Historicizing these trends allows us to critically examine the future trajectories of these instruments, and thus have significant bearings on the contemporary landscape of educational research. Analogously to these racial shifts over the past fifty years, surveys like TFS have begun to collect data on respondent's sexual identities, as well as expanding survey items on focusing on respondents' gender identities (*Fig 15*).



48. What is your sexual orientation?

- Heterosexual/Straight
- Gay
- Lesbian
- Bisexual
- Queer
- Other

49. Do you identify as transgender?

- Yes
- No

Figure 15 The Freshman Survey Questionnaire (2015)

Much like the shifts in racial and ethnic classifications, these changes in surveys are also emblematic of growing visibility for populations who were previously invisible. Ironically, the inclusion of these questions wield the possibility to render these

populations visible through the amassment of quantifiable data. Yet, examining the genealogy of racial/ethnic classification in surveys like TFS reveal the shortcomings inherent in quantifying social identities in the first place. In effect, the forms through which we seek to tabulate sexual and gender identities are necessarily always already reductive. In this respect, we may then imagine that in the next fifty years, we will also witness a proliferation of new responses seeking to count sexual orientation and gender identity (SOGI) measures. As this section evidences, the slow process of institutionalizing these social identities as common demographics collected within the educational world is already underway. The processes by which these changes unfold echo the historical issues faced by the changes to racial/ethnic markers. I argue that there is value in exploring the discursive overlap between measure of racial/ethnic and SOGI markers, without risking the collapse of the specific histories inherent to each of these markers. Rather, the *critical data literacy* of the histories that these markers of social difference have followed enable us to appreciate their various points of convergence.

Conceptualizing genders within AERA: A vignette

On April 2016, The American Educational Research Association (2016) issued a statement to its membership notifying them of changes to its gender category options. In its blog post on *AERA Highlights*, the staff shared how, “AERA members will have the option to select from an expanded list of gender categories when renewing their membership or joining the Association. Recognizing that the traditional gender category options of “female,” “male,” and “other gender” fail to capture the full spectrum of

gender identities and expressions” (AERA, 2016a). As AERA staff also noted, this revised strategy for membership data collection was not a particularly innovative move, but rather, a deliberate attempt after “exploring how peer research societies categorize gender and conducting a comprehensive literature review.” (Ibid.). The statement continued, “AERA staff solicited guidance and input from members of the Committee on Scholars & Advocated for Gender Equity in Education (SAG), the Social Justice Action Committee, and the Queer Studies SIG [Special Interest Group], as many of these scholars and researchers are well published and noted experts on gender issues.” The statement’s appeal to educational researchers’ expertise legitimates the new categories as responsive to the growing evidence signaling the shift to approaches for collecting population-level gender demographic markers. The statement noted the new categories, which included:

- Female/Woman
- Male/Man
- Transgender Female/Transgender Woman
- Transgender Male/Transgender Man
- Another gender identity (please specify): _____

The backlash to these proposed categories, however, was swift. The same day when the new categories were issued, members from the organization took to social media outlets to lament AERA staff’s conflation of gender and sex (as denoted in ‘Female/Woman’) and questioned the purpose of collecting these data in the first place. By May 4th, Kamden Strunk, the membership chair of the Queer Studies Special Interest

Group within AERA had issued a follow-up survey within the Queer Studies list-serve requesting participants to “gather information from the membership so that we can present that information to AERA leadership and speak collectively regarding this issue” (personal correspondence, 4 May 2016). The report published by Strunk and circulated within the Queer Studies SIG membership not only detailed the feedback from the survey’s participants, but also included exchanges between AERA staff and members of the Queer Studies SIG leadership in the months leading to AERA’s official announcement in April. As Strunk suggests in the report,

“This email exchange makes clear that, even with the problems in SIG communication strategies at the time, the SIG leadership raised serious concerns about the proposed changes, and requested further information and consultation. It seems that AERA headquarters acknowledged the request for further consultation and information, but moved forward with changes anyway” (p. 5).

Strunk’s report on behalf of the Queer Studies membership included a list of 51 potential gender categories that AERA could include in its data collection.

In late May, Felice Levine, AERA’s executive director, issued a follow-up statement in which she acknowledged receiving “some very thoughtful comments, especially from scholars in AERA’s Queer Studies SIG,” directed to further altering the choices to better reflect the association’s goals and intent.” (Levine, 2016). Levine detailed a series of steps taken in response to the feedback, including convening “a panel of experts to participate in a videoconference to develop a revised set of gender categories.” The panel’s recommendation suggested a two-step approach to collecting data on gender, “the first being the collecting of data on the biological sex assigned at birth, and the

second asking members how they describe their gender,” making special note that “as with all other demographic questions, responses to these questions would not be required.” The final suggestions resulted in these revised prompts:

Biological sex designated at birth (check all that apply):

Female

Male

Intersex

Biological sex not listed above (please specify): _____

Prefer not to answer

Gender (check all that apply):

Agender

Cisgender Man

Cisgender Woman

Gender Expansive

Gender Fluid

Gender Non-Conforming

Genderqueer

Man

Non-Binary

Transgender

Trans Man

Trans Woman

Trans/Trans*/Trans+

Two-spirit

Woman

Gender not listed above (please specify): _____

Prefer not to answer

In addition to these recommendations, Levine requested further community input via e-mail responses open for a two-week comment period in order to allow AERA “to

examine the feedback and provide AERA Council with a further report and recommendations when it meets on June 24-25, 2016.”

In the July edition of *AERA Highlights*, AERA staff reported that following “considerable discussion of options and approaches that would well serve the membership, Council decided on a fully open-ended field for gender identification with no other question added” (AERA, 2016b). The official policy, then, would result in a single question asking members:

Gender Identification: _____ (specify)

I offer these detailed account of changes that AERA began to explore in 2013 for a number of reasons. First, it is a vignette that demonstrates the political nature of data collection strategies. Secondly, it also demonstrates how even when experts are summoned to develop policy, the path of action to be taken is not necessarily clarified, but rather further complicated.

In its rationale for the importance of collecting these demographic data from its membership, AERA invoked the common trope of “better serving its membership” (2016a, 2016b). The will for organizations to collect data in the name of improved services is a common trope in favor of population-level data collection strategies. As Dean Spade has noted in his book *Normal life: Administrative violence, critical trans politics, & the limits of law* (2015),

control that operates through population-level interventions is particularly significant to trans politics because of the way trans people struggle with gender

categorization in the purportedly banal and innocuous daily administration of programs, policies, and institutions (e.g. Homeless shelters, prisons, jails, foster care, juvenile punishment, public benefits, immigration documentation, health insurance, Social Security, driver licensing, and public bathrooms). An understanding of power that looks at the distribution of life changes created by population-level interventions draws our attention to how the categorization of people works as a key method of control (pp. 73-74).

The preceding chapters have traced the genealogies through which educational researchers have developed systems to categorize individuals with specific attention to the construction of race and ethnicity. The lessons learned from these histories serve as speculative roadmaps to understand the future changes on measures of SOGI data collection protocols. Much like the opening vignette on AERA's clumsy foray into gender-related changes, this chapter explores how administrative staff at at one university and representatives of NCES understand and perceive the terrains of data collection, management, and social identities.

Databases and Privacy

The parameters of what is permissible for both federal statistical agencies and institutions' research branches are woven into a complex matrix of legal regulations that define what type of information is permissible for collection. Demographic identifiers are perceived as politicized data items because of the possibility that they provide the bread crumbs to identify specific individuals within an already de-identified dataset. Both within the technical review panel for IPEDS, as well as in the conversations within individuals at East University, ideas of privacy were often invoked to delineate the

contours of what seemed feasible and adequate for institutions and government alike to know about their students.

In 1974, the Family Educational Rights and Privacy Act (“FERPA”) was enacted as a way to protect the privacy rights of students and to ensure their access to their own institutional records. As a legal roadmap for educational administrators, FERPA has functioned in analog ways to the way in which HIPPA protects the privacy of healthcare records for individuals accessing healthcare provisions. In FERPA’s stipulations, individuals under the age of 18 must have their guardians assent to the collection of certain information—with students providing this affirmative consent after they come of age. The stringency of these guidelines also informs how institutional researchers and federal data collectors understand their roles in the collegiate context.

At the Federal and institutional level, administrators of data collection bodies couch any changes to demographic tabulations by invoking the importance of users’ privacy. Though these administrators are not practicing attorneys themselves, they evidence how their engagement with their legal counseling colleagues affect how they imagine any changes to current data infrastructures. Unsurprisingly, perhaps, the tenor of conversations around sexual and gender identities, particularly as they relate to individuals within communities of sexual and gender minorities (SGMs) carry a heightened sensibility to the importance of protecting these privacies.

During the technical review panel, much of the concerns around modifying collection strategies in efforts to include GSM were couched as the imperative of combatting the

status quo of current data collection instruments. Though it was clear that there was no consensus amongst the forty attendees on *how* changes would be implemented to reflect shifts in conceptualizations of gender within the IPEDS infrastructure, the importance of rendering these heretofore invisible communities visible into the system had been acknowledged as an ethically correct course of action by everyone. In an unexpected twist, the closing remarks Quentin, one of the staff members of NCES, cast this rhetoric on its head by posing the question *not* as a form of rendering populations visible, but rather, as a reminder of the amount of privacy that might be given up by individuals who are sharing this information to the government.

As Quentin stated in the ominous closing, “how much do we want the government to know about us?” — In doing this, the representative had reminded the attendees that one of the reasons that these questions of collecting fine-grained information on GSM identities might only be ethically tenable because there are currently no universal student identifiers (USI) within the data. Thus, responses cannot be identified to a specific individual. The representative hypothesized that perhaps this conversation may have unfolded differently were USI the norm within federal data infrastructure. Given the broad interest in USIs for the past twenty years, the recognition amongst the audience of this ‘what if?’ seemed to ring true. What, then, are we to do?

Even without the existence of USIs, the issue of potential recognition of individuals (i.e. the betrayal of protecting students’ privacy) was a running theme throughout the various conversations during the TRP. As attendees learned that the estimated incidence

of transgender identities oscillated between 1-2% of the population according to the most recent research, the issue of small cell sizes was invoked as a methodological and ethical concern. Given that the current legislation for IPEDS reporting asks NCES to report certain measures (e.g. completion of degrees in specific fields) as cross-tabulated with race and ethnicity markers, some of the participants expressed concerns about the risk of identifying individuals, particularly within the context of smaller institutions.

Yet the agreement that the *status quo* was not the way to move forward pushed participants to consider strategies wherein data collection could be modified, though this did not mean that the data would be displayed in the same way as it was collected. That is to say, the potential for data suppression in reported tables emerged as an alternative. For example, participants suggested that the current data collection could be modified to include “Man”; “Woman”; “Transgender,” yet could be reported by institutions as “Man”; “Woman”; “Transgender”; “Unknown,” wherein only the first two categories would be displayed in the public tabulations hosted in the NCES *Digest of Education Statistics* and its IPEDS data center. Quentin interjected to remind individuals that NCES had assiduously worked to ensure that none of the data collected through the various survey components within IPEDS would be suppressed to the public. Thinking that suppression seemed like a way of taking the collections backwards, the potential for differing standards in terms of how data was collected and what data would then be displayed for the public entered a more treacherous territory. As a compromise,

participants wondered whether this level of specificity of identities was more germane to the institutions rather than for federal data collection instruments.

Institutions, however, seemed no more eager to address this issue. As most of the participants in the TRP were affiliated with specific institutions (or oversaw the data collection and reporting strategies for clusters of postsecondary institutions), many of them voiced how they felt that federal suggestions on how to collect these data created a powerful message for institutions that may be less inclined to collect this information in the first place. Yet the value of honoring students' privacy was no less visible within East University. As one of the administrators that oversaw data collection within EU shared:

I mean my instinct as a representative again, and I'm anonymous in this whole thing, but as a representative of a large institution, my instinct as I was sort of alluding to earlier is not to collect too much information about people, to respect their anonymity as required, and only to collect the information you absolutely need collect. So if I could wave a magic wand, there are people on this campus who would want to track everyone and everything they do, put it altogether and have a beautiful magical dataset about everyone, which sounds great, it also sounds really scary. And so I don't, I think from that institutional perspective, I want to protect people's privacy. I know that there are other perspectives, so from the individual's perspective—and this is difficult for me to really empathize with because I'm a white man, right—but I know that people want to build communities and articulate communities, and articulate belonging, in various different ways. And the way that these institutional structures are set up are actually often counter to those desires, and so that's where I think the magic wand would happen, is how can we allow people to feel better about their attachments to the institution and to other members of the institution, not how can we change our categories or our data, because it's not our job to know everything about the people here.

Notable in this administrator's comments is his understanding of a "beautiful magical dataset" that tracks "everyone and everything they do" as both a great thing *and* as scary thing. Thus the limits of what is desirable for institutions to know also comes at the expense of allowing an Orwellian future to come to fruition within a collegiate setting. Most striking, perhaps, is his acknowledgement that the purpose of *why* these data are important in the first place extends beyond the seemingly self-apparent reasons that are couched in terms of the institutional logic where an institution can better cater for its students if it knows who its students are. Instead, this administrator notes that one of the reasons why identities are important is because individuals want to articulate communities of belonging and that capturing more data on them should not be equated with ensuring that people "feel better about their attachments to the institution and to other members of the institution." Rather than framing the protection of students' anonymity for the sake of legal compliance or a knee-jerk desire to protect their privacy on ethical grounds, this administrator suggests that the purpose of tinkering with the categories within the dataset might be a misguided premise in the first place as it does not guarantee that students with these minoritized identities *experience* their sense of belonging within the campus any differently.

The level of nuance evidenced by this administrator's response was echoed at different moments throughout the conversation on federal data collection standards. Yet, the potential for identification seemed to trump the desire to include categories for GSM within the IPEDS infrastructure. A TRP participant shared that given the size of the

institution they represented, they would expect to see repercussions not only for students, but also for staff and faculty given that these modifications would also affect the Human Resources survey components of IPEDS which are designed to collect demographic information on teaching and administrative staff. Further, another participant echoed that their institution had already experienced discrimination based on other demographic information. The specter of potential identification, then, tempered the desires to enact specific modifications within the data infrastructure.

As the TRP was a preliminary conversation to any specific modifications, many of the commentaries offered were framed in terms of participants' reliance on past experiences to share hypothetical scenarios highlighting the potential unintended consequences of any changes. It echoed the caution that an administrator at EU had offered about their own working environments:

there are other people that have this like I'm the gatekeeper mentality and if their license says this name, or if their social security card says this name, that has to be it. And I always push back. I actually use the binary gender as the great thing, I say: 'what did you do to prove that they were a male when they applied for admission?' And of course, the answer is always 'nothing'. So I say 'why do you give them a hard time if they want to change it, or if they want to change their name?' or whatever. People evolve. They're not the same person every step of their lives. You accommodate divorces. You accommodate whatever—FERPA blocks. Why wouldn't you accommodate this. This is what I call old-school Registrars just don't think that way, honestly. But what's changing are students' stories becoming more public. I don't think these things were very public, not that long ago. And also, I've seen some of my colleagues change because of people in their own office. So some of their staff members are a bit more progressive around this area. And so they're learning that way as well.

As this administrator posits, the willingness to engage with any change as a viable modification to a data collection strategy works in tandem with the increased visibility to trans* and gender non-conforming individuals, through their narratives and stories become visible on campus and beyond. The curtailment of these changes on the grounds of privacy, however, seem to invoke the specter of students' wellbeing, yet seldom take into account these individuals' direct testimonials or engage with the reality that the individual who has the agency to choose whether or not to disclose parts of their identities by filling out specific boxes rests solely on the respondent. As architects of these forms, administrators have an opportunity to provide respondents with alternatives through which respondents can make themselves visible.

NCES officials explained they had convened this technical review panel focused on gender given the large number of messages received by their offices with concerns about the current reporting expectations for IPEDS key holders (individuals at each postsecondary institution in the country charged with reporting institutional data). The current expectation from NCES is that all institutions must report students' sex in a way that the total count for both sexes equals the total count of students enrolled at the institution. This is done to ensure that derived calculations that take into account elements like students' sex have the proper denominator in the calculations. In the course of this conversation, participants expressed concerns about the inflexibility of the system. One of the participants cautioned that upholding the stringency of these policies validated a system that is central to obscuring the experiences of gender non-

conforming individuals. In doing so, ensuring that systems like IPEDS remained inattentive to non-binary genders reinforced the idea that binary genders are the norm. This sentiment echoed Dean Spades' examination of what he calls "administrative violence," as a form of practices that are embedded in social systems which consistently render certain individuals ineligible and/or invisible (2015).

Confronting administrative violence in datasets

Participants were receptive to the idea that they were contributing to unintended forms of oppression. Indeed, at one moment one of them proclaimed that not only had NCES endured a long-history of confounding sex and gender as seemingly interchangeable identity markers, but that not doing anything to address this was an untenable scenario where we had to collectively "pick our poison" as we were, in fact, already misrepresenting reality. Throughout the duration of the technical review panel, several participants expressed gratitude for the civility of the exchanges on this topic. As one of the participants expressed, the TRP provided an opportunity to "think of things that I had not considered before I got here this morning." This is not to suggest that exchanges were not without their own moments of symbolic oppression. For example, even though participants had discussed at length that NCES had consistently conflated markers of gender and sex across its surveys and the publicly available tables on the Digest of Education, participants themselves also enacted these confluations as they discussed their ideas, at times equating sex with manhood and womanhood, and at others discussing female and males to frame their comments on gender dynamics on

their campuses. Beyond the misuse of terms that are seemingly interchangeable to lay audiences, these moments demonstrated some efforts to remain attuned to these changes.

Importantly, however, the exchanges throughout the TRP evidenced the modest emergence of an increased literacy around issues of gender and sexuality, particularly as participants recognized that changes within a federally-administered dataset could ignite conversations across institutions that might be unconcerned with adequately supporting GSM members within their own institutions. At the same time, however, there were limits to how they understood this charge. One of the primary objectives of the TRP was to consider whether there was also a need to include questions on respondents' sexual orientation in addition to gender identity. The unequivocal consensus was that sexual orientation fell beyond the scope of the TRP and that the topic had to be revisited at a different session. Curiously, however, participants had a range of justifications for this decision—from the perception of increased issues and potential harm of students who disclosed their minoritized identities to the notion that sexual orientation is an “activist orientation” that would be too political for inclusion at the present time. From the outset, it is easy to understand why the outcome of the inclusion of sexual orientation may have fallen outside the purview of the TRP—after all, the title of it was “Gender” rather than “Gender and Sexual Orientation” — yet the rationales offered for this follow-up conversation were not about treating sexual orientation as substantively distinct from

gender; rather, it was about the perceived heightened politicization of sexual orientation as a point of data collection.

For most of the participants, the lack of interest in the inclusion of sexual orientation largely rested on the fact that it was perceived as an *addition* of a new demographic marker, whereas the questions surrounding the collection and reporting of gender were a *modification* of an existing survey item. Further, the fact that NCES flags unreported gender counts as incomplete survey components also motivated participants to request substantive changes to current gender reporting practices. There are multiple reasons why some institutions do not have registered genders for some of its students—indeed, this is not about students not reporting their gender on the grounds that they don't identify with either "Man" or "Woman" but rather, because the institution has enrolled the student through channels where students' genders have not been collected. In these situations, a student's gender is truly *unknown*, therefore the institutional representative does not have an accurate way of making a claim about the student's gender. As a result, institutional key holders must report fictitious counts of students' gender distribution. Currently, NCES issues some guidelines for this process, which suggests to distribute the "unknown" gender counts in a way that mirrors the known gender distribution at the institution. As an illustrative example: if there are 300 unknown gender cases at an institution with a 60% Women and 40% Men breakdown, then 180 would be counted as Women and 120 would be counted as Men. However, multiple participants noted that

this was not only an imperfect solution, but also one that was not consistently adopted by all key holders.

In effect, during the presentation from NCES officials on the issue deriving from having to report *all* students' genders, messages from the IPEDS list-serve were showcased as examples of the affective discomfort from institutional key holders that did not want to continue the practice of inventing genders for those respondents with unknown genders. As one of the messages stated: "If I create any other gender categories, I then have to use my own judgment to report those students as either male or female. And I don't think I am the best person to make that choice. I think the student is the best person to make that choice." (Slide 53, p. 26) In another message shared by NCES officials during the TRP, the compromise was to suggest that NCES should "simply no longer requir[e] the M/F totals to add up perfectly to the same total as enrollment." (Slide 54, p. 27) Yet, as noted previously, the response to this suggestion was to highlight the 'downstream' repercussions of this decision by highlighting how it "would affect almost every IPEDS survey that collects student related data [...] one could suggest adding "Other" as a quick solution. *"But if the decision is made to add gender/sex categories beyond "other", with the expanding evolution of gender/sex identity categories or the confusion as to the sex vs gender debate, how can one predict where it will end?"* (slide 55, p. 28; emphasis added) Of note in this response is that the suggested alternative is quickly deemed untenable on the grounds that the proliferation of gender categories creates complexities that are too hard to apprehend. Undergirded

in this rationale is a narrative of panic around the proliferation of gender categories. The very idea that gender and sex need not be stable dichotomous variables is framed as a methodological nuisance that emerges from just about a few cases. Even during the conversations unfolding at the TRP, some individuals were quick to note that the ongoing conversations about gender and sexuality were cause to not do anything at all as it was all too new to take any actions about it.

More broadly, however, the grounds for potential inaction around reconsiderations of gender tabulations were also framed in the specificity of IPEDS as an administrative system. Whereas most of the current research on promising practices for SOGI measures have emerged in the context of sample surveys, IPEDS is an aggregator of a variety of institutional surveys that are reported by institutions at different times during the year. This echoes the concerns that were also expressed around the changes to race and ethnicity as discussed in Section II. Given the temporal specificity of these systems, some of the participants also voiced the methodological complexity of tracking students' gender identities on the grounds of the temporal specificity of the administrative dataset. That is to say, understanding that individuals' gender identities might change over time, some participants expressed concern that their gender counts might fluctuate over the periods of time when institutions are expected to track students' information. Considering that students might change their responses with respect to what gender they choose, TRP participants expressed questions on how they would 'troubleshoot' these scenarios. The good will of the participants at the TRP, it seemed, was

compromised by their perspectives on how they understood the methodological soundness of how they could maintain the integrity of their datasets. In doing so, it highlighted the conundrum of how their own personal perspectives created sustained friction with how they understood the role they had to play as institutional administrators.

Beyond IPEDS: Exploring other changes within NCES

It is important to note that other instruments administered by NCES have been responsive to changing SOGI measures. In fact, a member of NCES sits on the Interagency Federal Working Group for Improvement in Measures on Sexual Orientation and Gender Identity, a group composed by statisticians from over twenty agencies convened by the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB). Shaun Donovan, director of the Office of Management and Budget discussed the purpose of this group at his remarks to the Williams Institute, a non-governmental research center that provides national-level demographic information on SGM communities housed at UCLA. He shared that “OIRA is leading an inter-agency process to explore LGBT measurement issues, with enthusiasm across agencies...[which] relies on a long-established process guided by the core responsibilities of official Federal statistics: relevance, accuracy, objectivity, and protecting the trust of data providers.” (Donovan, 2015). Under the purview of this group, three working papers have been published through the Federal Committee on Statistical Methodology (FCSM). The first, published in August 2016 provides an overview of current measures of

SOGI identity in Federal Surveys. The second one focuses on current evaluations of SOGI measures [add sentence when third paper is published in December 2016]. The first two of these had been made available for review to the forty participants of the Gender TRP hosted by NCES.

The efforts within NCES to focus on issues affecting GSM measurements predate the establishment of the Interagency Working Group. This work, however, has not unfolded within the scope of IPEDS or the Common Core Data (CCD) focused on K-12 schools and pupils. Rather, it has found a home within one of the sample surveys administered by NCES, the High School Longitudinal Study of 2009 (HSL:09), a nationally representative study with over 22,000 respondents who began their participation as ninth-graders and for whom there have been two waves of follow-up surveys to date (one collected in 2012, and the second one currently under data collection in 2016). Under FERPA regulations, respondents who are under the age of 18 cannot be asked about sensitive information, which would include questions of sexual orientation. Given that the respondents participating in the study were no longer minors at the time of constructing new question items for the second follow-up survey instrument, HSL:09 provided a feasible opportunity to implement these questions amongst youth respondents through a federal education-related survey. In documents submitted by NCES to OMB's OIRA, the review of the design for cognitive interviews for questions in the second follow-up survey notes that RSS—the contracted agency conducting field tests for NCES—was charged with recruiting 10 LGBT respondents in order to conduct field tests to examine

the adequacy of wording for a revision presenting a non-binary option for the gender item and the inclusion of a question on sexual orientation. When the revisions to the facsimiles for the HSL:09 second follow-up were submitted to OIRA in May 2016, NCES noted that “based on cognitive interview results and consultation with GLSEN, removed definition of ‘transgender’ in question stem. Added a ‘genderqueer/gender nonconforming’ option; ‘something else’ option removed” (2016, p. 43). Though more specific results from HSL:09 will not be public until 2018, the working papers disseminated by the Interagency Working Group do reference the cognitive tests undertaken as part of the revisions to HSL:09. Of note, for example, one of the papers offers evidence on the value of cognitive interviewing to “observe participants’ reactions and responses to measures of sexual identity,” and suggests that the cognitive testing for HSL:09 revealed that “participants have comprehension difficulty with the term ‘heterosexual,’ and respondents recognize ‘straight’ as the more common term. However, some straight participants felt that the terms ‘heterosexual’ and ‘homosexual’ were more proper and less offensive than ‘straight,’ ‘gay’ and ‘lesbian’” (Evaluation of SOGI, 2016, p. 17).

These preliminary changes confirm the slow turn towards the incorporation of SOGI measures within surveys and administrative data sets. Yet the caution of the administrative violence that emerges from these efforts must also be heeded with caution. The passing comment on how “some straight participants felt that the terms ‘heterosexual’ and ‘homosexual’ were *more proper*” (emphasis added) reminds us of the

long history of the medicalization of these identities, particularly as the homo/hetero nomenclature owes its origins to these specific pathologizing discourses. Notably, the Interagency Working Group's assessment of these cognitive tests does not make a reference of what GSM members thought was "more proper" in their own self-identification. Centering the subjective perspectives of straight respondents offers caution by highlighting how we remain complicit in (un)intentionally upholding the perspectives of those within dominant groups as the norm.

Trying to not 'get it wrong'

The perception of administrative violence enacted through the invisibility of gender nonconforming people does not escape individuals within NCES. In one of the conversations with NCES staff members, one of them shared how any change within IPEDS must be carefully considered:

You don't want to do it wrong. Like so many things in IPEDS if we collect more detail it's more burden. In this case if we collect more detail we could inadvertently release data on individuals didn't want released or we could undermine fairness laws that have been passed that we want to continue with. But then by not asking we're accused of being old fashioned or stuck in some mode that you shouldn't be bigoted or that shouldn't exist anymore. So it's a no win until you really know what you should do.

This staff member offers the common tropes that were discussed throughout the TRP: from the institutional burden of having to include breakdowns into more categories, to the potential breach of privacy. Earlier in a conversation with multiple staff

members of NCES, including Quentin, discussed the potential options for changes with the gender component:

Quentin: I know you're seeing the data center. How would we do the indicator reports and all of the web tables? Do we add a third gender, a fourth gender? Do we go the eight like the advocacy groups propose?

Rob: Eight?

Quentin: You have the gender, the sex you were born with, the sex you identify with and the one you want the world to see you as. So it's a two to the power of three. It's three binary variable and it can make eight permutations like male, male, male; male, female, male, you get the idea. That is what is the most detailed. I'm not proposing it, [Redacted]. He looks at me 'like you've got to be kidding me.'

Rob: I'll be gone probably by then.

Quentin: I don't know.

Simultaneously as these members attempt to not "get it wrong" the way in which they approach framing the conversations with one another enact the symbolic violence that Spade articulates. Transforming data systems to be more inclusive of non-binary experiences is couched as both a reporting burden for officials charged with producing tables with this information. At the same time, one cannot simply dismiss these claims as actively trying to diffuse the situations. Instead, these remarks underscore the importance of increasing a critical literacy around data production that is not just oriented towards methodological soundness, but also attentive to the ways in which data can dignify people by recognizing them through these forms.

Investigating the processes through which social identities are codified in large-scale data remain a timely contribution to methodological, historical, and ethical understandings of the production of educational research. For methodologists,

questions of the integrity of data infrastructure can be perceived as divorced from the underlying social ramifications indexed by the categories used within these instruments. Indeed, the choices of which markers of social difference are included can be an ethical choice that renders heretofore invisible populations legible. Most recently, the two datasets under consideration in this project have begun to consider how to incorporate markers of gender and sexual identities within their data collection instruments. In 2015, The Freshman Survey (TFS)—the oldest running survey focused on students’ collegiate experiences in the United States—included two new demographic questions: one inquiring about respondents’ sexual orientation; the other, about respondents’ gender identity. Similarly, The TRP I have discussed at length in this section can be partly attributed to the publication of a *Dear Colleague Letter on Transgender Students* from the Department of Education’s Office of Civil Rights in May 2016

Dana, one of the participants who served in the 1994 federal Interagency Committee for the Review of Race and Ethnic Standards (ICRRES) noted that “the approach statistical agencies in the government are undertaking to explore new measurements for sexual orientation and gender identity closely follows the footprint of what was learned back in the nineties about race and ethnicity”. Indeed, ICRESS has served as a precursor to the current Federal Inter-Agency Working Group on Improving Measurement of Sexual Orientation and Gender Identity convened in 2015 by the Office of Management and Budget (Donovan, 2015).

Many have lauded these changes as momentous shifts in the visibility of gender and sexual minoritized (GSM) groups. The increased visibility of a broad range of issues centering individuals' sexuality has affected the viability of adding a new set of demographic markers within these surveys. For some participants, these influences included grassroots efforts against bullying of queer youth, media coverage on same-sex marriage, and even colleague's own sexual identities. As one participant stated during an oral history focused on TFS "even knowing that we might have pushback from some institutions who would not want to ask questions about their students' sexuality, we knew we had to consider these questions because that's where we are headed as a society." Indeed, the past twenty years have witnessed a surge of grassroots efforts to amass more data on the condition of GSM communities within a variety of data collection instruments. In this respect, datasets specific to the educational world are following the footsteps of survey designs in general demography and public health (Baumle, Compton & Poston, 2009). Furthermore, efforts to institutionalize these identities within data collection practices can be situated within a broader history of social scientists' investments in developing quantifiable measurements of social issues. This project contributes to a finer understanding of how the collection of social data—including racial, ethnic, gender, and sexual identities—has a more complicated history and, potentially, ambivalent future within the landscape of postsecondary educational research. Thus, rather than accepting the notion that these changes occur as a response

to objective practices of improved demography, this project positions these modifications as deeply attuned to the social milieu in which these changes develop.

Section V: Significance and Conclusion

The importance of historical investigations is often framed in terms of their relevance to present conditions. In this respect, this project follows with this logic. By investigating the social and historical dimensions of survey methodologies within educational research as deeply situated within complex a web of individuals' political dispositions, this project provides a new angle through which to understand taxonomies of social identities embedded within survey data. Beyond the substantive importance of this topic, however, this dissertation also engages with the methodological contributions of oral histories and archival work as a strategy to better understand how markers of social difference are malleable constructs that shift with the passing of time. It also shows the promise of bibliometric visualizations to enhance our understanding of higher education a specific field and domain of inquiry. Through this project, we can appreciate how large-scale datasets and their instruments evidence concrete manifestations of the shifting zeitgeist of social identities in the United States. The galvanization of new social categories within these surveys and the scholarship emerging from our field can help us understand the underlying politicization of the very instruments that we use to narrate the social realities of education in the United States.

In this project, I have offered a cross-section of distinct areas where discourses of identities circulate in the production of new educational knowledge. From examining the narratives of individuals charged with developing federal and national surveys, to

scrutinizing the texts that emerge from scholars using these databases for their published work. Alongside these specific settings, I also juxtaposed these conversations with the everyday experiences of administrators at East University and the public commentaries of citizens concerned about forthcoming changes to the current federal practices indexing racial and ethnic identities.

As I outlined in the overview (Section I) of this project, I was guided by three interrelated questions. The first was concerned with understanding the ideologies of social identities informing data collection strategies in education. The second, focused on understanding how the data emerging from these datasets circulated within the academic sphere. And, lastly, an inquiry seeking to understand how our knowledge of the historical changes to the collection of racial and ethnic standards could facilitate new understandings on the forthcoming changes to measures of sexual orientation and gender identity. Each section in this dissertation addressed one of the questions posed in its overview. The historical examination of IPEDS' implementation of the 1997 Standards for Maintaining, Collecting, and Presenting of Data on Race and Ethnicity revealed the various factors accounting for the prolonged delay between the Standards' issuance in 1997 and NCES' adoption of these new standards over ten years later. As a point of comparison, a brief examination of HERI's TFS highlighted the ease with which other nationally representative surveys implemented modified ways of measuring racial, ethnic, sexual, and gender identities. Yet, both of these accounts demonstrate the unexamined ways through which a deference to quantified epistemologies can often

create long-lasting tensions between methodological interventions and responsiveness to shifting social issues. Furthermore, the hesitancy with which these standards were implemented in the educational world must also be understood in the context of the long-standing criticisms the field has received over its perceived lack of rigor. As such, the deference to upholding methodological standards cannot be understood solely as a way of maintaining rigor, but also as symptomatic of the politicized nature of these measurements.

The information produced from these datasets takes up a life of its own in academic contexts, particularly in the way that peer-reviewed journals adopt these measurements to create new educational knowledge. The academic rifts and groupings depicted through the various visualizations in Section III remind us that the field of higher education remains fragmented in various ways, often times on epistemological grounds. However, empirically visualizing these various terrains can also serve as the roadmap towards integrating these dialogues. In effect, calling attention to the potential insularity of some areas of research (e.g. educational psychology), or the reluctance to explore the value of emerging social identities (e.g. 'queer') already provide the future points of action toward integrating these gaps.

These surveys are the offspring of the individuals who constructed them; architects who built upon the sociopolitical milieu they inhabited. In short, they simultaneously provide us a snapshot of how presumed objectivity has been constructed in education by way of the quantification of students and institutions alike. This is not to say that

these practices of quantification are exclusively within the province of these instruments; rather they provide us with a snapshot of the importance of critically engaging with the contextual histories that have constructed these instruments. Engaging with this perspective as form of literacy about data, we can offer some suggestions for the future of these lines of inquiry.

Avenues for Further Research

There are multiple avenues to continue this investigation. These roads for further exploration map out the trajectory of my own research agenda. The most pressing areas of further work relate to the prospective changes to Federal standards on race and ethnicity, particularly the potential of incorporating Middle Eastern/North African as a new “minimum category” in agencies’ collection and reporting. If we can foreshadow the future by learning from the past, I would suggest that incorporating these changes will likely take multiple years prior to being fully implemented. However, the implications of these changes must be considered under a new political context. The rising tides of a new xenophobic, nationalistic political regime in this country have rendered the potential changes to these data collection strategies even more politically fraught than before. Dana, who worked at NCES for over twenty years, offered insights into the potential dangers of these forms of data collection: “as long as you’re collecting the data then it can be used against people as well as to help people.” Perhaps, then, the delays that we may anticipate in the past may not occur for reasons of bureaucracy but for attempts of greater protection.

There are similar roadblocks in the future of institutionalizing non-binary data collection strategies at the federal level. Though the promise of surveys like HLS:09 may suggest that these changes will be more expedient, the current presidential administration has largely tempered any mobilization that may have been ignited in prior years. The *Dear Colleague* letter that prompted the Technical Review Panel for IPEDS on Gender, for example, has since been rolled back (Strauss, 2017). For community organizers and scholars alike, the current political turbulence may signal a shift in priorities, perhaps pushing back the charge to enact systemic change on data collection strategies.

Despite these potential pitfalls in the future of this work, I also envision the pedagogical value of some of the outcomes of this work. Bibliometric visualizations, I contend, are suitable materials to introduce incoming researchers into the field of higher education. As an applied field, the tenuous boundaries across different scholars can be depicted with these modes of representation. In addition to these forms of representation, bibliometric visualizations also provide the roadmap of future work invested in understanding the everyday practices that constitute the field of higher education. As I have mentioned previously, following-up with the authors depicted in these visualizations is a logical next step for this particular investigation.

In upholding the logics through which I have approached the inquiry in this work, the task of mapping the future of this research is necessarily tethered to the political context in which I conducted this investigation. The genealogies that emerge from these

engagements reveal the inextricable nexus between politics and those who wield the tools to construct knowledge.

Appendices

Appendix A: Python code for web scraping of regulations.gov

I am particularly indebted to the wise input from Patty Lynn, Scott Enderle, and Regina Burd who expertly guided me in the process of developing the necessary competencies for this part of my work.

```
1. import os
2. import requests
3. import json
4. import time
5. from docx import Document
6. import urllib
7.
8. header = "https://api.data.gov/regulations/v3/document.json?api_key=sILE0BdGLfTiMoa0JG7mssuvpPHCO
9. 6bNK72u9As6&documentId="
10.
11.
12. documentIDs = [#add document ids here]
13.
14. os.chdir(#add target directory here)
15.
16. for document in documentIDs:
17.     thisDocument = header + document
18.     comment = json.loads(requests.get(thisDocument).text)
19.     submitterName = comment['submitterName']['value']
20.     organization = comment['organization']['value']
21.     fullComment = comment['comment']['value']
22.     attachments = comment['attachments']
23.
24.     i = 1
25.     for a in attachments:
26.         sat = a['fileFormats'][0]
27.         strarray = str(sat).split('?', 2)
28.         attachurl = str(strarray[0]) + '?' + apiKey + '&' + strarray[1]
29.         attachf = document + "_" + str(i) + "_" + "Attachment.docx"
30.         urllib.request.urlretrieve(attachurl, attachf)
31.         i = i + 1
32.
33.     commentDoc = Document();
34.
35.     commentDoc.add_paragraph(submitterName)
36.     commentDoc.add_paragraph(organization)
37.     commentDoc.add_paragraph(fullComment)
38.
39.     commentDoc.save(document + '.docx')
40.     print("reached document " + document)
41.
42.     time.sleep(3)
```

Appendix B: Informed Consent

Understanding the Origins and Uses of Large-Scale Datasets in Postsecondary Education Research

WRITTEN CONSENT FORM

The goal of this project is to understand the development and origins of large-scale datasets as well as researchers' uses of large-scale datasets in producing quantitative research focused on postsecondary education. Specifically, this project conducts oral histories of individuals involved in the development of two large-scale datasets, one from the National Center for Education Statistics (NCES) and another from the Higher Education Research Institute (HERI). Similarly, it seeks to conduct interviews with researchers who have previously published peer-reviewed articles using datasets from the Integrated Postsecondary Education Data System (NCES) and/or the "The Freshman Survey" (HERI) to understand the uses and limits of these datasets. It aims to investigate researchers' disposition towards these datasets and their usefulness in answering questions on the persistence of educational inequities in the United States.

The research study is being conducted as part of a doctoral dissertation at the University of Pennsylvania's Graduate School of Education. You are being asked to participate in an oral history/interview.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research, you will participate in an oral history/interview that lasts approximately 90 minutes. There is an optional follow-up interview that will take place approximately one month after the first interview. These interviews will be audio recorded, transcribed, and kept in a confidential data room at the Center for Minority Serving Institutions at the University of Pennsylvania for the duration of the project. The researcher may contact interviewees again with follow-up questions in order to confirm and validate our findings and analyses. Any additional questions asked will fall under the interview protocol approved by the University of Pennsylvania's Institutional Review Board.

ARE THERE ANY RISKS TO ME?

All interviews will be audio-recorded and transcribed. Individual respondents and their titles will not be identified in transcripts or any project publications unless specifically noted otherwise. Although selection of participants has been conducted by prospective participants' prior publication in peer-reviewed journals focused on higher education, participants will not be explicitly identified unless otherwise noted. Loss of confidentiality is a potential risk of participating in this study. While no study is without risk, we believe that the risks in participating in this study are negligible.

ARE THERE ANY BENEFITS TO ME?

You may not receive any benefits from participation in this study. There is no monetary compensation for participating in this study. The potential benefit of participating in this project is contributing to educational researchers' understanding of how large-scale datasets are used in producing research.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

All participants will be given a pseudonym, unless otherwise specified. The data will be managed by the principal investigators (Marybeth Gasman and Andrés Castro Samayoa). Data (audio recordings) will be kept in a locked filing cabinet located in an office with a locked door.

WHO CAN I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after you leave today you should contact the Principal Investigators, Marybeth Gasman at 215-573-3990, or Andrés Castro Samayoa at 267-634-0266.

If you are not satisfied with the response of the research team, have more questions, or want to talk with someone about your rights as a research participant, you should contact the University of Pennsylvania Institutional Review Board at 215-573-2540.

Your participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on any services or treatment you are currently receiving. You may keep a copy of this form for your records.

Pseudonym requested: ___ Yes ___ No

Participant Printed Name Date

Participant Signature

Researcher Printed Name Date

Researcher Signature

Appendix C: Interview Probes for Oral Histories

Title of the Study: Researchers' Dispositions Towards Large-Scale Datasets in Postsecondary Education Research

Principal Investigator: Marybeth Gasman, Ph.D.
Phone: 215-573-3990
Email: mgasman@upenn.edu

Andrés Castro Samayoa, M.Phil
Phone: 267-634-0266
Email: andresca@gse.upenn.edu

Overview of Interviews. Participants will be interviewed in open-ended interviews. Individual interviews will last for 30 to 60 minutes. There will be a minimum of one interview during your participation in this project, with an optional follow-up interview. The researcher will ask open-ended questions exploring, documenting, and giving expression to your academic preparation, interest, and understanding of large-scale quantitative datasets commonly used in higher education. Specifically, we will focus on your use of data from the National Center for Education Statistics and/or The Freshman Survey.

Interviews will take place be audio recorded using an electronic recorder and take place in-person (where possible) or over the phone. These interviews will then be transcribed for future analysis by either the P.I. or outsourced for transcription with a partner that follows the same protocols as the P.I.

Protocol and Sample Questions

[Greetings]. I am most appreciative of your taking the time to speak with me about your research interests. As mentioned during our initial conversation, the focus of this conversation is in gathering information on your interest in producing quantitative research on postsecondary education through large-scale quantitative datasets.

Our discussion should take approximately 60 minutes. Before we start, I just want to reassure you that your responses to my questions will be confidential, and in our reporting of findings, respondents will not be identified by name, position, or school in the dissertation or published articles derived from this work. Please read through the Research Information and Consent Form that I have provided. I would like to audio record our discussion in order to accurately capture everything you tell us. Do I have your permission to record this discussion?

Your agreement indicates that you consent to participating in the interview and being recorded. If you decide at any time that you do not want to answer any particular question, or would like to withdraw from the research study, you may do this without penalty. If you have questions about the study after this interview, you may contact the principal investigators, Marybeth Gasman at 215-573-3990, or Andrés Castro Samayoa at 215-313-0111, or the University of Pennsylvania Institutional Review Board at 215-573-2540.

Oral History Prompts

First I would like to begin by explaining the purpose of the three sheets that I have mailed to you, labeled 1-3. The first one is a blank sheet for you to write down anything that may come to mind throughout the duration of our conversation. You may use this to return to any event or anecdote that we may have not covered during the course of our conversation.

The second one is an opportunity for you to build a timeline to reconstruct some of the salient aspects that you may want to cover during our conversation. As you will hear, the prompts that I have prepared are rather expansive and some interviewees find it helpful to spend a couple of minutes sketching out a sense of their timeline for the period that we're discussing. Specifically, I'm particularly interested in hearing about your time XXXXX

The last one is an opportunity for you to build a chart connecting key players during the time that you were at XXXX. This may be an organizational chart of just a series of names connected with one another. Some participants find it helpful to sketch out these relationships and then talk about how these individuals were related to one another.

I would like to begin by getting to know a bit more about your own professional trajectory. Can you share more about what prompted you to pursue a career in educational research?

Probes: talk about focus on education or transitions in work.

From all of the different areas of research, what drew you to framing your research questions through quantitative approaches?

Biographical Sketch

Name, educational background, and how you arrived at education as one of the career paths that you followed.

When did you first become involved with IPEDS/TFS?

Prompts:

(a) what were the goals of creating these instruments?

(b) what were some of the memorable setbacks;

(c) who were your closest colleagues

I'm curious to learn more about your involvement with the [insert organization where they were involved]

How do you think these data have changed the way in which we conduct educational research?

Prompts:

(a) what were some of the limitations;

(b) what are future iterations of these types of databases?

This section asks you to be a bit more speculative in terms of its future: what are some of the major issues that need to be addressed in the current iteration of IPEDS?

Who else might you recommend to be a part of this oral history?

May I share that you suggested them?

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